BK	NBR	ANS	QUESTION	CHOICE A	CHOICE B	CHOICE C	CHOICE D	ILLUSTRATION
4	0	D	Frapping lines _____.	secure the lifeboat in the davits when in the stowed position	bring the lifeboat close alongside the rail in the embarkation position	give the occupants a safety line when the boat is being lowered from the embarkation level	reduce the swinging of the lifeboat at the embarkation level	
4	1	D	Your vessel is on an even keel. The MT1 of your vessel is 1000 ft-tons. How many tons of cargo must be loaded in number 4 hold which is 100 feet abaft the tipping center, if she is to have a 2 foot drag?	90 tons	100 tons	130 tons	240 tons	
4	2	C	An airplane wants a vessel to change course and proceed towards a vessel in distress. The actions of the aircraft to convey this message will NOT include _____.	circling the vessel at least once	heading in the direction of the distress location	flashing the navigation lights on and off	crossing ahead and rocking the wings	
4	3	D	To turn over an inflatable liferaft that is upside down, you should pull on the _____.	canopy	manropes	sea painter	righting strap	
4	5	D	Pollution of the waterways may result from the discharge of _____.	sewage	the galley trash can	an oily mixture of one part per million	All of the above	
4	6	D	Records of tests and inspections of a cargo vessel's fire extinguishing systems shall be kept on board _____.	for 1 year	for 2 years	until the next Coast Guard inspection	until the vessel's Certificate of Inspection expires	
4	7	A	You have been carrying a liquid with flammable limits of 1% to 7% mixture with air. If your instructions say that no one shall enter the tank if the vapor concentration is over 15% of the LEL, what is the maximum allowable percentage of vapors for men to enter?	0.15%	0.85%	1.05%	7.00%	
4	8	B	You are alone and administering CPR to an adult victim. How many chest compressions and how many inflations should you administer in each sequence?	5 compressions then 1 inflation	15 compressions then 2 inflations	20 compressions then 3 inflations	30 compressions then 4 inflations	
4	9	A	The International Regulations for Preventing Collisions at Sea contain the requirements for _____.	signals that must be sounded when being towed in restricted visibility	minimum hawser lengths when being towed	lights that must be displayed on anchor buoys	mooring procedures for support vessels when transferring cargo	
4	10	B	What is the definition of transverse metacenter?	The distance between the actual center of gravity and the maximum center of gravity that will still allow a positive stability.	The point to which G may rise and still permit the vessel to possess positive stability.	The sum of the center of buoyancy and the center of gravity.	The transverse shift of the center of buoyancy as a vessel rolls.	
4	11	D	A patient in shock should NOT be placed in which position?	On their side if unconscious	Head down and feet up, no injuries to face or head	Flat on their back with head and feet at the same level	Arms above their head	
4	12	B	The purpose of inert gas systems aboard tank vessels is to _____.	allow sufficient oxygen in the tank to sustain life	prevent outside air from entering the tank	provide increase in cargo discharge pressure	comply with double hull pollution prevention regulations	
4	13	A	Your liferaft is to leeward of a fire on the water and riding to its sea anchor. You should FIRST _____.	boat the sea anchor	paddle away from the fire	splash water over the liferaft to cool it	get out of the raft and swim to safety	

4	14	B	A yellow signal floating in the air from a small parachute, about 300 feet above the water, would indicate that a submarine _____.	has fired a torpedo during a drill	is about to rise to periscope depth	is on the bottom in distress	is disabled and unable to surface	
4	15	C	In reference to accidental oil pollution, the most critical time during bunkering is when _____.	you first start to receive fuel	hoses are being blown down	final topping off is occurring	hoses are being disconnected	
4	17	D	The atmosphere in a tank is too rich when it is _____.	incapable of supporting combustion because the hydrocarbon vapor content makes the atmosphere below the LFL (Lower Flammable Level)	capable of supporting combustion	in a noncombustible state which can be relied on to occur naturally on a regular basis	incapable of supporting combustion because the hydrocarbon vapor content makes the atmosphere above the UFL (Upper Flammable Limit)	
4	18	C	When giving mouth-to-mouth rescue breathing to an adult, you should breathe at the rate of how many breaths per minute?	4	8	12	20	
4	19	B	The operator of the ship's radiotelephone, if the radiotelephone is carried voluntarily, must hold at least a _____.	mate's license	restricted radiotelephone operator permit	second-class radio operator's license	seaman's document	
4	20	A	If the vertical center of gravity (VCG) of a ship rises, the righting arm (GZ) for the various angles of inclination will _____.	decrease	increase	remain unchanged	be changed by the amount of GG' x cosine of the angle	
4	21	D	Coast Guard regulations require that all of the following emergencies be covered at the periodic drills on a fishing vessel EXCEPT _____.	minimizing the affects of unintentional flooding	fire on board	rescuing an individual from the water	emergency towing	
4	22	D	An inert gas system installed on a tanker is designed to _____.	aid in the stripping and cleaning of cargo tanks	increase the rate of discharge of cargo	force toxic and explosive fumes from a cargo tank to vent to the outside atmosphere	lower the oxygen levels inside cargo tanks, making explosion nearly impossible	
4	23	C	Your ship is sinking rapidly. A container containing an inflatable liferaft has bobbed to the surface upon functioning of the hydrostatic release. Which action should you take?	Cut the painter line so it will not pull the liferaft container down.	Swim away from the container so you will not be in danger as it goes down.	Take no action because the painter will cause the liferaft to inflate and open the container.	Manually open the container and inflate the liferaft with the hand pump.	
4	24	A	Which single-letter sound signal may be made only in compliance with the International Rules of the Road?	D	F	Q	U	
4	25	B	You are on a 30,000 DWT tankship engaged in trade to another country signatory to MARPOL 73/78. Which statement is TRUE?	The Certificate of Inspection is prima facie evidence of compliance with MARPOL 73/78.	The IOPP Certificate is valid for 5 years.	An IOPP Certificate is invalid if the ship carries cargoes outside the classes authorized thereon.	AN IOPP Certificate is renewed at each inspection for certification.	
4	26	B	The galley on your cargo vessel has an area of 2,500 square feet. What would fulfill the minimum requirements for fire protection?	One B-I extinguisher	One B-II extinguisher	One B-II and one C-II extinguisher	One B-V extinguisher	

4	27	A	The atmosphere in a tank is too lean if it is _____.	incapable of supporting combustion because the hydrocarbon content is below the LFL (Lower Flammable Limit)	capable of supporting combustion because the hydrocarbon content is above the UFL (Upper Flammable Limit)	capable of supporting a fire once started	not safe for ballasting	
4	28	C	The rescuer can best provide an airtight seal during mouth-to-mouth resuscitation by pinching the victim's nostrils and _____.	cupping a hand around the patient's mouth	keeping the head elevated	applying his mouth tightly over the victim's mouth	holding the jaw down firmly	
4	29	C	In order to discharge a CO2 portable fire extinguisher, the operator must FIRST _____.	invert the CO2 extinguisher	squeeze the two trigger handles together	remove the locking pin	open the discharge valve	
4	30	B	Transverse stability calculations require the use of _____.	hog or sag calculations or tables	hydrostatic curves	general arrangement plans	cross-sectional views of the vessel	
4	31	A	All of the following are part of the fire triangle EXCEPT _____.	electricity	fuel	oxygen	heat	
4	32	B	Every U.S. crude oil tankship with a keel laying date on or after 1/1/75, shall be equipped with an inert gas system if the tonnage is more than _____.	100,000 DWT (long tons)	100,000 DWT (metric tons)	50,000 DWT (long tons)	50,000 DWT (metric tons)	
4	33	D	Inflatable liferafts are less maneuverable than lifeboats due to their _____.	shape	shallow draft	large sail area	All of the above	
4	34	D	Which single-letter sound signal(s) may only be made in compliance with the Rules of the Road?	D	E	S	All of the above	
4	35	A	Which statement is TRUE of a gasoline spill?	It is visible for a shorter time than a fuel oil spill.	It is not covered by the pollution laws.	It does little harm to marine life.	It will sink more rapidly than crude oil.	
4	36	C	The number and type of hand portable fire extinguishers required outside and in the vicinity of the paint locker exit is _____.	one A-I	two A-IIs	one B-II	one C-II	
4	37	D	What is the generally accepted method of determining whether the atmosphere within a cargo tank is explosive, too rich, or too lean to support combustion?	Use the open flame test on a small sample that has been taken from the tank.	Send a gas sample ashore for laboratory analysis.	Enter the tank with an oxygen analyzer.	Use an explosimeter.	
4	38	D	When applying chest compressions on an adult victim during CPR, the sternum should be depressed about _____.	1/2 inch or less	1/2 to 1 inch	1 to 1-1/2 inches	1-1/2 to 2 inches	
4	39	A	A flame screen _____.	permits the passage of vapor but not of flame	prevents the passage of flammable vapors	prevents inert gas from leaving a tank	permits vapors to exit but not enter a tank	
4	40	C	Regardless of local requirements/regulations, when in a U.S. port, all oil spills must be reported to _____.	Environmental Protection Agency	Minerals Management Service	National Response Center (USCG)	All of the Above	
4	41	D	Before using a fixed CO2 system to fight an engine room fire, you must _____.	secure the engine room ventilation	secure the machinery in the engine room	evacuate all engine room personnel	All of the above	
4	42	B	The advantages of using an inert gas system on a tank vessel is that it provides _____.	for faster loading	tank atmosphere with low oxygen content	better fuel economy	All of the above	

4	43	D	If an inflatable liferaft is overturned, it may be righted by _____.	filling the stabilizers on one side with water	releasing the CO2 cylinder	pushing up from under one end	standing on the inflating cylinder and pulling on the straps on the underside of the raft	
4	44	B	The spread of fire is prevented by _____.	heating surfaces adjacent to the fire	removing combustibles from the endangered area	increasing the oxygen supply	All of the above	
4	45	C	Which statement is TRUE concerning small oil spills?	They usually disappear quickly.	They usually stay in a small area.	They may cause serious pollution as the effect tends to be cumulative.	A small spill is not dangerous to sea life in the area.	
4	46	D	The required number and type of hand portable fire extinguishers to be carried in the vicinity of the radio room exit for a tank vessel on an international voyage is one _____.	B-I	B-II	C-I	C-II	
4	47	D	What is used to test a tank for oxygen content?	Combustible gas indicator	Vapor indicator	Atmosphere analyzer kit	None of the above	
4	48	A	You are administering chest compressions during CPR. Where on the victim's body should the pressure be applied?	Lower half of the sternum	Tip of the sternum	Top half of the sternum	Left chest over the heart	
4	49	C	You are fighting a fire in the electrical switchboard in the engine room. You should secure the power, then _____.	use a portable foam extinguisher	use a low-velocity fog adapter with the fire hose	use a portable CO2 extinguisher	determine the cause of the fire	
4	50	B	What is not usually a concern when loading a single-hulled tanker?	Bending moments	Initial stability	Draft	Trim	
4	51	B	On cargo and miscellaneous vessels what is NOT a required part of the fireman's outfit?	Self-contained breathing apparatus with a lifeline attached	Combustible gas indicator	Rigid helmet, boots, and gloves	Flame safety lamp	
4	52	A	Which statement is TRUE concerning inert gas systems on tank vessels?	Flue gases from the ship's boilers are used in some systems.	Helium is the preferred inert gas.	Using the system accelerates the rusting of the tanks.	All of the above	
4	53	B	If an inflatable liferaft inflates upside down, you can right it by _____.	pushing up on one side	standing on the CO2 bottle, holding the bottom straps, and throwing your weight backwards	getting at least three or four men to push down on the side containing the CO2 cylinder	doing nothing; it will right itself after the canopy supports inflate	
4	54	C	On surface type offshore drilling units, each survival craft must be capable of being launched to the water at the minimum operating draft, under unfavorable conditions of trim and with the unit listed not less than _____.	6°	12°	20°	25°	
4	55	B	Most minor spills of oil products are caused by _____.	equipment failure	human error	major casualties	unforeseeable circumstances	
4	56	D	The required number and type of hand portable fire extinguishers for staterooms on cargo vessels is _____.	one A-I	one B-I	one C-I	none required	
4	57	C	The minimum concentration of a vapor in air which can form an explosive mixture is called the _____.	auto-ignition point	flash point	lower explosive limit (LEL)	threshold limit value (TLV)	

4	58	A	Changing rescuers while carrying out artificial respiration should be done _____.	without losing the rhythm of respiration	only with the help of two other people	by not stopping the respiration for more than 5 minutes	at ten-minute intervals	
4	59	D	Where on your vessel shall the recharge for each self-contained breathing apparatus be carried?	Emergency gear locker	Bridge or pilothouse area	Where they can be readily found	The same location as the equipment it reactivates	
4	60	D	Your vessel rolls slowly and sluggishly. This indicates that the vessel _____.	has off-center weights	is taking on water	has a greater draft forward than aft	has poor stability	
4	61	C	You are towing a 1000 gross ton gasoline tank barge. The barge is NOT gas free. Regulations say that the cargo tank hatches, ullage holes, and Butterworth plates on the barge may remain open without flame screens _____.	without restriction	only while in areas of good weather	when under the supervision of a senior crew member on duty	only when the barge is empty	
4	62	C	The deck water seal of the inert gas system _____.	cools the inert gas and prevents soot from entering the cargo tanks	acts as an emergency system shutdown when the inlet pressures exceed the safe working pressure in the hazardous zone	prevents the backflow of hydrocarbon gasses into nonhazardous areas	relieves sudden large overpressures in the system	
4	63	D	You have abandoned ship and are in an inflatable raft that has just inflated. You hear a continuous hissing coming from a fitting in a buoyancy tube. What is the cause of this?	The saltwater is activating the batteries of the marker lights on the canopy.	The inflation pump is in automatic operation to keep the tubes fully inflated.	A deflation plug is partially open allowing the escape of CO2.	Excess inflation pressure is bleeding off and should soon stop.	
4	64	D	The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.	338 tons	309 tons	281 tons	263 tons	ST-0001
4	65	A	The most serious effect of trapped air in a diesel engine jacket water cooling system is that it _____.	accelerates erosion	reduces the effectiveness of chromate additives	can form pockets of high chemical concentrates	accelerates formation of sludge deposits	
4	66	C	The galley on your cargo vessel has an area of 2,900 square feet. What will fulfill the requirements for fire protection?	One B-I extinguisher	One B-II extinguisher	One B-II and one C-II extinguisher	One B-V extinguisher	
4	67	B	The explosive range of petroleum vapors mixed with air is _____.	0% to 1%	1% to 10%	10% to 15%	12% to 20%	
4	68	B	The MOST important element in administering CPR is _____.	having the proper equipment for the process	starting the treatment quickly	administering of oxygen	treating for traumatic shock	
4	69	A	Fire hose couplings _____.	are made of bronze, brass, or soft alloy metals	should be painted red in order to identify hose lengths	are specially hardened to prevent crushing	should be greased frequently	
4	70	D	What represents the center of gravity?	GZ	M	B	G	D001SA
4	71	D	Each hand portable fire extinguisher must be marked with _____.	the name of the vessel on which it is located	the date that it was installed	the names of the individuals qualified to use it	an identification number	
4	72	B	To disengage a survival craft suspended from the cable above the water, you must pull the safety pin and _____.	pull the hook release handle	pull the hook release handle and use the ratchet bar	use the ratchet bar and depress the retainer	pull the hook release handle and depress the retainer	

4	73	A	A liferaft which has inflated bottom-up on the water _____.	should be righted by standing on the carbon dioxide cylinder, holding the righting straps, and leaning backwards	should be righted by standing on the life line, holding the righting straps, and leaning backwards	will right itself when the canopy tubes inflate	must be cleared of the buoyant equipment before it will right itself	
4	74	A	Outlets in gasoline fuel lines are _____.	prohibited	permitted for draining fuel from lines	permitted for drawing fuel samples	permitted for bleeding air from lines	
4	75	A	If you must abandon a rig in VERY HEAVY SEAS, in a survival craft, when should you remove the safety pin and pull the hook release?	Immediately upon launching	One to three feet before first wave contact	Upon first wave contact	Only when waterborne	
4	76	C	The required number and type of hand portable fire extinguishers required for a galley having an area of 3,500 square feet is _____.	one B-II	one C-II	two B-II's or C-II's	two A-II's or B-II's	
4	77	C	Normally, the percentage of oxygen in air is _____.	16%	18%	21%	25%	
4	78	A	Before CPR is started, you should _____.	establish an open airway	treat any bleeding wounds	insure the victim is conscious	make the victim comfortable	
4	79	A	A squeeze-grip type carbon dioxide portable fire extinguisher has been partially discharged. It should be _____.	labeled empty and recharged as soon as possible	replaced in its proper location if weight loss is no more than 25%	replaced in its proper location regardless of weight	replaced in its proper location if weight loss is no more than 15%	
4	80	B	What represents the metacentric height?	M	GM	BM	GZ	D001SA
4	81	A	Which extinguishing agent is most likely to allow reflash as a result of not cooling the fuel below its ignition temperature?	CO2	Water stream	Water spray	Foam	
4	82	B	You are fighting a class "B" fire with a portable dry chemical extinguisher. The discharge should be directed _____.	to bank off a bulkhead onto the fire	at the seat of the fire, starting at the near edge	over the top of the fire	at the main body of the fire	
4	83	D	If more than one raft is manned after the vessel has sunk, you should _____.	go in a different direction in search of land	spread out to increase the possibility of a search aircraft finding you	reduce the number of rafts by getting as many people as possible into as few rafts as possible	tie the rafts together and try to stay in a single group	
4	84	D	After using a C02 portable extinguisher, it should be _____.	put back in service if some C02 remains	hydrostatically tested	retagged	recharged	
4	85	D	To prevent the spread of fire by convection you should _____.	shut off all electrical power	remove combustibles from direct exposure	cool the bulkhead around the fire	close all openings to the area	
4	86	C	On an inspection of your tankship you notice that there are no portable fire extinguishers in the pumproom. To comply with regulations, you _____.	need not be concerned since no portable extinguishers are required in the pumproom	should arrange to have a B-II extinguisher placed in the vicinity of the exit	should arrange to have a B-II extinguisher placed in the lower pumproom	may substitute sand for the required extinguishers	
4	87	B	Which type of portable lighting may be used to enter a compartment on a tank barge which is NOT gas-free?	A three-cell flashlight	An explosion-proof, self-contained, battery-fed lamp	A spark resistant and flame retardant lamp	None of the above	
4	88	D	You are attempting to administer CPR to a victim. When you blow into his mouth it is apparent that no air is getting into the lungs. What should you do?	Blow harder to force the air past the tongue.	Raise the victim's head higher than his feet.	Press on the victim's lungs so that air pressure will blow out any obstruction.	Re-tip the head and try again.	

4	89	B	To determine what navigation lights and day-shapes must be displayed on mobile offshore drilling units under tow, you should check the _____.	American Bureau of Shipping classification rules	International Regulations for Preventing Collisions at Sea	Safety of Life at Sea Convention	Minerals Management Service rules	
4	90	B	Refer to the illustration below. Which represents the righting arm?	GM	GZ	BM	Angle MGZ	D001SA
4	91	A	Except in rare cases, it is impossible to extinguish a shipboard fire by _____.	removing the fuel	interrupting the chain reaction	removing the oxygen	removing the heat	
4	92	B	The liquid mud tanks on your vessel measure 24'L by 16'B by 8'D. The vessel's displacement in fresh water is 864 tons and the specific gravity of the mud is 1.47. What is the reduction in GM due to 2 of these tanks being slack?	.32 foot	.80 foot	.96 foot	1.12 feet	
4	93	D	If, for any reason, it is necessary to abandon ship while far out at sea, it is important that the crew members should _____.	separate from each other as this will increase the chances of being rescued	get away from the area because sharks will be attracted to the vessel	immediately head for the nearest land	remain together in the area because rescuers will start searching at the vessel's last known position	
4	94	B	If you desired to communicate with another station that your navigation lights were not functioning, you would send _____.	PB	PD1	MJ	LN1	
4	95	C	A spark arrestor _____.	keeps sparks from falling into an open tank	secures covers on ullage openings	prevents sparks from getting out of an engine's exhaust system	grounds static electricity	
4	96	D	A B-III foam extinguisher contains _____.	2-1/2 gallons of foam	8 gallons of foam	10 gallons of foam	12 gallons of foam	
4	97	D	The only portable electrical equipment permitted in a compartment which is not gas free is a lamp that is _____.	battery fed	self-contained	approved explosion proof	All of the above	
4	99	B	Annex V to MARPOL 73/78 contains requirements pertaining to the discharge into the marine environment of _____.	oil	garbage	noxious liquid substances	None of the above	
4	100	B	When a vessel has positive stability, the distance between the line of force through B and the line of force through G is called the _____.	metacentric height	righting arm	righting moment	metacentric radius	
4	101	B	On a vessel of 10,000 tons displacement, compute the reduction in metacentric height due to free surface in a hold having free water on the tank top. The hold is 40 feet long and 50 feet wide. The reduction in metacentric height is _____.	1.1 feet	1.2 feet	1.3 feet	1.5 feet	
4	102	A	You are underway when a fire breaks out in the forward part of your vessel. If possible, you should _____.	put the vessel's stern into the wind	abandon ship to windward	call for assistance	keep going at half speed	
4	103	A	You have just abandoned ship and boarded a raft. After the raft is completely inflated you hear a whistling noise coming from a safety valve. You should _____.	not become alarmed unless it continues for a long period of time	plug the safety valve	unscrew the deflation plugs	remove the safety valve and replace it with a soft patch	
4	104	B	In the International Code of Signals, the code signal meaning "I require immediate assistance" is _____.	AE	CB	DX	CP	

4	105	D	The International Regulations for Preventing Collisions at Sea contain the requirements for _____.	lights that must be displayed on anchor buoys	the display of load line markings	minimum horsepower for tugs involved in rig moves	lighting of mobile offshore drilling units being towed	
4	106	C	A B-II fire extinguisher has a minimum capacity of _____.	3 gallons of foam	20 pounds of CO2	10 pounds of dry chemical	All of the above	
4	107	B	What best describes for how long a gas-free test is good?	For as long as is indicated on the gas-free certificate	For the instant that it is made	Until valves in line with the tank or compartment are reopened	Until changes in temperature or pressure affect the vapor content in the space	
4	108	B	Antiseptics are used principally to _____.	speed healing	prevent infection	reduce inflammation	increase blood circulation	
4	109	C	Your vessel has a displacement of 10,000 tons. It is 350 feet long and has a beam of 55 feet. You have timed it's full rolling period to be 15.0 seconds. What is your vessel's approximate GM?	1.18 feet	1.83 feet	2.60 feet	3.36 feet	
4	110	B	A vertical shift of weight to a position above the vessel's center of gravity will _____.	increase reserve buoyancy	decrease the righting moments	decrease KG	increase KM	
4	111	A	In the event of a fire, the doors to a stair tower must be closed to prevent the spread of fire by _____.	convection	conduction	radiation	ventilation	
4	112	A	Your small vessel is broken down and rolling in heavy seas. You can reduce the possibility of capsizing by _____.	rigging a sea anchor	constantly shifting the rudder	moving all personnel forward and low	moving all personnel aft	
4	113	D	You hear air escaping from the liferaft just after it has inflated. You should _____.	quickly hunt for the hole before the raft deflates	check the sea anchor line attachment for a tear if the seas are rough	check the painter line attachment for a tear caused by the initial opening	not panic since the safety valves allow excess pressure to escape	
4	114	A	If you are in urgent need of a helicopter, which signal code should you send?	BR	BS	BT1	BZ	
4	115	B	Which is TRUE concerning immersion suits and their use?	Only a light layer of clothing may be worn underneath.	They provide sufficient flotation to do away with the necessity of wearing a life jacket.	They should be tight fitting.	A puncture in the suit will not appreciably reduce its value.	
4	116	C	What is classified as a B-II fire extinguisher?	A 2-1/2 gallon soda acid and water	A 1-1/4 gallon foam	A 2-1/2 gallon foam	A 20 pound dry chemical	
4	117	A	Combustible gas indicators operate by drawing an air sample into the instrument _____.	over an electrically heated platinum filament	where it is mixed with nitrogen	where it is ignited by a sparking device	where its specific gravity is measured	
4	118	B	A tourniquet should be used to control bleeding ONLY _____.	with puncture wounds	when all other means have failed	when the victim is unconscious	to prevent bleeding from minor wounds	
4	119	D	What would be considered a vessel under the International Rules of the Road?	A jack-up rig under tow	A semisubmersible drilling rig under tow	A semisubmersible drilling rig drifting after breaking a tow line	All of the above	
4	120	B	The point to which your vessel's center of gravity (G) may rise and still permit the vessel to have positive stability is called the _____.	metacentric point	metacenter	metacentric radius	tipping center	

4	121	B	Your vessel has a displacement of 24,500 tons. It is 529 feet long and has a beam of 71 feet. You have timed your full charge rolling period to be 25.0 seconds. What is your vessel's approximate GM?	1.25 feet	1.56 feet	1.98 feet	2.43 feet	
4	122	B	A negative metacentric height _____.	will always cause a vessel to capsize	should always be immediately corrected	always results from off-center weights	All of the above are correct	
4	123	A	If you are forced to abandon ship in a lifeboat, you should _____.	remain in the immediate vicinity	head for the nearest land	head for the closest sea-lanes	vote on what to do, so all hands will have a part in the decision	
4	125	A	Addition of weight to a vessel will ALWAYS _____.	reduce reserve buoyancy	increase righting moments	increase GM	All of the above	
4	126	D	Which portable fire extinguisher is classified as a type B-III extinguisher?	12 gallon soda acid	20 gallon foam	30 pound carbon dioxide	20 pound dry chemical	
4	127	D	Before welding in a tank that has carried petroleum products, the tank must be certified by _____.	the Coast Guard	the American Bureau of Shipping	the shipyard fire department	a certified marine chemist	
4	128	D	A seaman has a small, gaping laceration of the arm that is not bleeding excessively. What can be done as an alternative to suturing to close the wound?	Wrap a tight bandage around the wound.	Apply a compression bandage.	Use temporary stitches of sail twine.	Apply butterfly strips, then a sterile dressing.	
4	129	C	A life float on a fishing vessel must be equipped with _____.	a righting line	red hand flares	pendants	drinking water	
4	130	B	When making a turn (course change) on most merchant ships, the vessel will heel outwards if _____.	the vessel has very little draft	G is above the center of lateral resistance	G is below the center of lateral resistance	the vessel is deeply laden	
4	131	B	A vessel is floating at a mean draft of 16 feet. At this draft, the displacement is 8,000 tons. The length of the vessel is 475 ft., beam is 55 ft., TPI is 45. Calculate KM. (See P-value, K-value table in the blue pages of the Stability Data Reference Book)	18.8 feet	20.9 feet	22.7 feet	32.0 feet	
4	132	D	The most serious effect of air trapped in a diesel engine jacket water cooling system is that it _____.	causes colloid suspension in the cooling water	reduces the capability of the lubrication system	can form pockets which block the flow of coolant through the system	leads to the scuffing of cylinder walls	
4	133	B	You have abandoned ship and are in charge of a liferaft. How much water per day should you permit each occupant to drink after the first 24 hours?	1 can	1 pint	1 quart	1 gallon	
4	134	A	What is the International Code signal for a decimal point between figures using flashing light?	AAA	TTTT	EEEEE	AS	
4	135	D	Which statement concerning an accidental oil spill in the navigable waters of the U.S. is FALSE?	The person in charge must report the spill to the Coast Guard.	Failure to report the spill may result in a fine.	The company can be fined for the spill.	The Corps of Engineers is responsible for the clean up of the spill.	
4	136	A	Which item is NOT required to be marked with the vessel's name?	Hand-portable fire extinguisher	Life preserver	Immersion suit	Lifeboat oar	
4	137	C	The officer responsible for the sanitary condition of the engineering department is the _____.	Master	Chief Mate	Chief Engineer	First Assistant	
4	138	C	A person reports to you with a fishhook in his thumb. To remove it you should _____.	pull it out with pliers	cut the skin from around the hook	push the barb through, cut it off, then remove the hook	have a surgeon remove it	

4	139	D	When fighting a fire in an enclosed space, the hose team should crouch as low as possible to _____.	protect themselves from smoke	obtain the best available air	allow the heat and steam to pass overhead	All of the above	
4	140	A	Which statement is TRUE of a stiff vessel?	She will have a large metacentric height.	Her period of roll will be large due to her large metacentric height.	She will have an unusually high center of gravity.	She will pitch heavily.	
4	141	A	Which emergency is required to be covered at the required periodic drills on a fishing vessel?	Recovering an individual from the water	Steering casualty	Emergency towing	Loss of propulsion power	
4	142	D	You are in the Baltic Sea which is a special area listed in ANNEX V of MARPOL. How many miles from land must you be to discharge ground rags, glass, and bottles into the sea?	3	12	25	Must be retained aboard	
4	143	D	You have abandoned ship in tropical waters. Which procedure(s) should be used during a prolonged period in a raft?	Wet clothes during the day to decrease perspiration.	Get plenty of rest.	Keep the entrance curtains open.	All of the above	
4	144	C	The unit of duration of a dash in Morse Code is _____.	one and one-half times the length of a dot	twice the length of a dot	three times the length of a dot	four times the length of a dot	
4	145	D	Which statement concerning an accidental oil spill in the navigable waters of the U.S. is TRUE?	The Corps of Engineers is responsible for the clean up of the spill.	The Department of Interior is responsible for the clean up of the spill.	A warning broadcast must be made by radiotelephone.	The person in charge must report the spill to the Coast Guard.	
4	147	A	Your vessel is on a voyage of three months duration. The number of sanitary inspections required is _____.	one	three	six	twelve	
4	148	B	First aid treatment for small cuts and open wounds is to _____.	lay the patient down and cover the wound when the bleeding stops	stop the bleeding, clean, medicate, and cover the wound	apply an ice pack to the wound and cover it when the bleeding stops	apply a hot towel to purge the wound, then medicate and cover it	
4	149	C	A signal indicating zone time is preceded with the letter _____.	L	N	T	Z	
4	150	D	A vessel would be referred to as "tender" when the weight of the cargo is _____.	evenly distributed vertically and the double bottoms are full	concentrated low and the double bottoms are empty	concentrated low and the double bottoms are full	concentrated high and the double bottoms are empty	
4	151	A	You are on a supply run to an offshore drilling rig. On board is the cargo listed. What is the height above the main deck of the center of gravity of the cargo?	1.50 feet	1.96 feet	2.21 feet	2.78 feet	ST-0002
4	152	B	What is the function of the bypass valve on the self-contained breathing apparatus?	The valve opens in excessive heat to release the oxygen in the bottle and prevent the bottle from exploding.	In the event of a malfunction in the equipment, the valve can be operated manually to give the wearer air.	When pressure in the apparatus exceeds 7 psi above atmospheric pressure, the valve opens to release pressure.	The valve reduces the high pressure in the bottle to about 3 psi above atmospheric pressure.	
4	153	A	If you reach shore in a liferaft, the first thing to do is _____.	drag the raft ashore and lash it down for a shelter	find some wood for a fire	get the provisions out of the raft	set the raft back out to sea so someone may spot it	
4	154	C	The standard rate of signaling by flashing light is _____.	twenty letters per minute	thirty letters per minute	forty letters per minute	fifty letters per minute	

4	155	A	When oil is accidentally discharged into the water, what should you do after reporting the discharge?	Contain the oil and remove as much of it as possible from the water.	Throw chemical agents on the water to disperse the oil.	Throw sand on the water to sink the oil.	Obtain your permit from the Corps of Engineers	
4	156	D	The Coast Guard determines how many passengers are permitted on a "T-Boat" by applying the _____.	"Length of Rail" criteria, allowing 30 inches of rail space along the vessel's sides and transom for each passenger	"Deck Area" criteria that permits one passenger for every 10 square feet of deck space available for passenger use	"Fixed Seating" criteria that allocates 18 inches of space for each passenger to rest his/her buttocks upon	Any or a combination of the above criteria	
4	157	B	On a tankship, sanitary inspections of the crew's quarters are the responsibility of the _____.	Master and Second Mate	Master and Chief Engineer	Master and union delegate	Master and Chief Mate	
4	158	B	A person has suffered a laceration of the arm. Severe bleeding has been controlled by using a sterile dressing and direct pressure. What should you do next?	Apply a tourniquet to prevent the bleeding from restarting.	Apply a pressure bandage over the dressing.	Remove any small foreign matter and apply antiseptic.	Administer fluids to assist the body in replacing the lost blood.	
4	160	A	A vessel is tender if cargo weight is _____.	concentrated high and the double bottoms empty	concentrated low and the double bottoms empty	evenly distributed vertically with the double bottoms full	concentrated and with the double bottoms full	
4	161	D	You are on a supply run to an offshore drilling rig. On board is the cargo listed. What is the height above the main deck of the center of gravity of the cargo?	2.15 feet	1.83 feet	1.64 feet	1.19 feet	ST-0003
4	162	B	The function of the bypass valve on the self-contained breathing apparatus is to _____.	control the pressure of the oxygen as it enters the body	allow the wearer to manually give himself oxygen	release excess heat which would otherwise cause the bottle to explode	allow exhaled gases to pass outside the bottle	
4	163	B	You are at sea in an inflatable liferaft. In high latitudes, the greatest danger is _____.	asphyxiation due to keeping the canopy closed	hypothermia caused by cold temperature	collapse of the raft due to cold temperatures	starvation	
4	164	C	You have called another vessel by flashing light and he has answered your call properly. You now send your call sign "DE KLIS". He should respond with _____.	TTTT	his own call letters	DE KLIS	R	
4	165	D	Which statement is FALSE regarding Halon as a fire extinguishing agent?	It is more effective than CO2.	It leaves no residue.	It is noncorrosive.	It is always non-toxic.	
4	166	C	On cargo vessels, which fire extinguisher is considered semi-portable?	A-II	C-II	B-III	All of the above	
4	167	C	One method of controlling rats on vessels is by rat-proofing. Rat-proofing is accomplished by _____.	installing rat guards on the mooring lines when in port	keeping foods protected and avoiding the accumulation of garbage	eliminating possible living spaces for rats when the ship is constructed	trapping and/or poisoning the rats	
4	168	A	In all but the most severe cases, bleeding from a wound should be controlled by _____.	applying direct pressure to the wound	submerging the wound in lukewarm water	cooling the wound with ice	applying a tourniquet	
4	169	B	The signal T 0735 means _____.	The Greenwich mean time is 0735	The zone time is 0735	The latitude is 7° 35'	The longitude is 7° 35'	

4	170	C	In order to minimize the effects of a tender vessel, when carrying a cargo of lumber, you should _____.	maximize your deck load	distribute lumber so that those stowing most compactly per unit of weight are in the upper holds	place the heaviest woods in the lower holds	keep the vessel's frame spaces free from lumber	
4	171	C	You are underway when a fire breaks out in the forward part of your vessel. If possible you should _____.	call for assistance	abandon ship to windward	put the vessel's stern into the wind	keep going at half speed	
4	173	C	While adrift in an inflatable liferaft in hot, tropical weather _____.	the canopy should be deflated so that it will not block cooling breezes	the pressure valve may be periodically opened to prevent excessive air pressure	deflating the floor panels may help to cool personnel	the entrance curtains should never be opened	
4	174	A	If you sent out a signal on 12 March 1980, the date would be indicated by _____.	D120380	D801203	D031280	D800312	
4	175	A	According to 46 CFR Subchapter T, a stability test may be dispensed with if the _____.	Coast Guard has the approved stability test results of a sister vessel	projected cost is unreasonable	Coast Guard does not have a qualified inspector available	vessel is of a proven design	
4	176	A	On tank vessels, fully charged fire extinguishers are considered semi-portable when they have a gross weight of more than _____.	55 pounds	75 pounds	95 pounds	125 pounds	
4	177	C	Before taking drinking water on board in the U.S. or its possessions, the responsible person from the vessel should determine that the source _____.	is used by a city	has been treated with chlorine	is approved by the Public Health Service	is not from surface water	
4	178	A	Bleeding from a vein may be ordinarily controlled by _____.	applying direct pressure to the wound	heavy application of a disinfectant	pouring ice water directly onto the wound	pinching the wound closed	
4	179	C	A vessel is floating at a mean draft of 14 feet. At this draft, the displacement is 6780 tons. The length of the vessel is 450 feet, beam is 50 feet, and TPI is 45.5. What is the KM? (See the P-K table in the blue pages of the Stability Data Reference Book)	28 feet	26 feet	22 feet	12 feet	
4	180	D	Which is TRUE of a "stiff" vessel?	It has a small GM.	It pitches heavily.	It has an unusually high center of gravity.	Its period of roll is short.	
4	182	A	Which abbreviation refers to the horizontal distance between perpendiculars taken at the forward-most and the after-most points on a small passenger vessel's waterline at her deepest operating draft?	LBP	LOA	LWL	LLL	
4	183	D	Which statement is TRUE concerning an inflatable liferaft?	The floor may be inflated for insulation from cold water.	Crew members can jump into the raft without damaging it.	The raft may be boarded before it is fully inflated.	All of the above	
4	184	A	When signaling by flashing light, the signal "C" should be used to indicate a(n) _____.	affirmative statement	question	change from affirmative to negative	request for the identity signal of the receiving stations	
4	185	C	Which substance is NOT considered to be "Oil" under the pollution prevention regulations?	Petroleum and fuel oil	Sludge	Oil mixed with dredge spoil	Oil refuse and oil mixed with wastes	

4	186	D	Fire hose stations shall be marked in red letters and figures such as Fire Station No. "1", "2", "3", etc. The height of the letters and figures must be at least _____.	1/2 inch	1 inch	1-1/2 inches	2 inches	
4	187	B	What represents poor sanitary procedures?	Keep and use a separate filling hose for potable (drinking) water.	Locate potable (drinking) water tanks as low as possible in the bilge.	Eliminate enclosed spaces in which trash, food particles, dirt may gather.	After washing dishes with soap and warm water, sterilize them in water of at least 170°F (76.7°C).	
4	188	A	The preferred method of controlling external bleeding is by _____.	direct pressure on the wound	elevating the wounded area	pressure on a pressure point	a tourniquet above the wound	
4	189	B	The purpose of the inclining experiment is to _____.	determine the location of the metacenter	determine the lightweight center of gravity location	verify the hydrostatic data	verify data in the vessel's operating manual	
4	190	A	Which technique could be used to give a more comfortable roll to a stiff vessel?	Concentrate weights on upper decks	Add weight near the centerline of the lower hold	Move weights lower in the ship	Ballast the peak tanks	
4	191	B	Where will you find the requirements for the lights that must be displayed on a mobile offshore drilling unit that is being towed?	Notice to Mariners	COLREGS	Coast Pilot	Light List	
4	192	C	When two fire hose teams are attacking a fire they should _____.	use different fire hose pressures	use fire hoses of different sizes	not attack the fire from opposite sides	not wear protective clothing	
4	194	B	Which signal given by flashing light changes a statement into a question?	C	RQ	N	NO	
4	195	B	As soon as the officer in charge of the vessel has taken steps to stop the discharge of oil or oily mixture into a U.S. harbor, what must he do FIRST?	Rig a boom for recovery.	Call the Coast Guard.	Alert the fire department.	Inform the Environmental Protection Agency.	
4	196	D	The term "gross tonnage" refers to _____.	the weight of the vessel measured in long tons	the weight of a vessel with all tanks full	the weight of a grossly overloaded vessel	the vessel's approximate volume including all enclosed spaces less certain exempt spaces	
4	197	D	Normally, potable water systems are connected directly to the _____.	fire-main system	feed-water system	freshwater sanitary system	domestic water tank	
4	198	C	A person suffering from possible broken bones and internal injuries should _____.	be assisted in walking around	be examined then walked to a bunk	not be moved but made comfortable until medical assistance arrives	not be allowed to lie down where injured but moved to a chair or bunk	
4	199	B	You are on a supply run to an offshore drilling rig. On board is the cargo listed. What is the height above the main deck of the center of gravity of the cargo?	3.6 feet	4.2 feet	4.4 feet	4.9 feet	ST-0004
4	200	B	Which statement is TRUE of a tender vessel?	It has a large GM.	Its period of roll is long.	It has a very low center of gravity.	It has a good transverse stability.	
4	201	D	Your vessel is equipped with totally enclosed lifeboats. Which statement is TRUE when the boat is enveloped in flames?	The ventilators will automatically close by the action of fusible links.	The motor takes its air supply from outside the lifeboat to prevent asphyxiation of the crew.	A water spray system to cool the outside of the boat is operated by a high-volume manual pump.	An air tank will provide about ten minutes of air for the survivors and the engine.	

4	202	D	The lifeline which is part of a fireman's outfit must be _____.	made of steel or bronze wire rope	corrosion resistant	not less than 50 feet in length	All of the above	
4	203	A	The number 2 lifeboat on a tanker would be _____.	forwardmost on the port side	forwardmost on the starboard side	abaft #1 lifeboat port side	abaft #1 lifeboat starboard side	
4	204	C	When signaling by flashing light, a correctly received repetition of a signal is acknowledged by the signal _____.	T	E	OK	AR	
4	205	D	When a vessel violates the oil pollution laws, who may be held responsible?	Master only	Owners only	Licensed officers only	Any individual connected with the vessel involved in the operation	
4	207	B	Which chemical is used to treat water in order to ensure its safety for drinking?	Nitrogen	Chlorine	Carbon	Oxygen	
4	208	C	What is the primary purpose of a splint applied in first aid?	Control bleeding	Reduce pain	Immobilize a fracture	Reset the bone	
4	209	A	The number 2 lifeboat on a tanker would be found _____.	on the port side	on the starboard side	abaft #1 lifeboat on the port side	abaft #1 lifeboat on the starboard side	
4	210	C	Metacentric height is an indication of a vessel's stability _____.	for all angles of inclination	for large angles of inclination	for small angles of inclination	in no case	
4	211	A	The oxygen indicator is an instrument that measures the _____.	amount of oxygen in the atmosphere of a confined space	amount of combustible gas as a percentage of the lower explosive limit in a confined space	concentration of CO2 as a percentage of oxygen in a confined space	None of the above	
4	212	D	In the navigable waters of the United States, Annex V to MARPOL 73/78 is NOT applicable to a(n) _____.	recreational yacht	uninspected towing vessel	uninspected passenger vessel under 100 GT	U.S. government vessel in non-commercial service	
4	213	A	Most lifeboats are equipped with _____.	unbalanced rudders	balanced rudders	contraguide rudders	straight rudders	
4	214	B	In a message sent by flashing light, what group of letters will direct the receiver of a message to repeat the transmission back to the sender?	REPEAT	RPT	RPB	UD AA	
4	216	B	What is the total number of approved low-velocity spray ("water-fog") applicators required aboard a tankship?	4	7	10	11	
4	217	A	Which item do you NOT have to provide for the Coast Guard representative at the time of a stability test?	A stability letter.	Tank sounding tables and draft mark locations.	Capacity plans showing the vertical and longitudinal centers of gravity of stowage spaces and tanks.	General arrangement plans of decks; holds and inner bottoms.	
4	218	D	A compound fracture is a fracture in which _____.	more than one bone is broken	the same bone is broken in more than one place	there is never any internal bleeding	the bone may be visible	
4	219	D	For the purposes of the International Rules of the Road, a non-self-propelled mobile offshore drilling unit under tow is considered to be a _____.	non-displacement vessel	limited vessel	power-driven vessel	vessel	
4	220	A	Metacentric height is a measure of _____.	initial stability only	stability through all angles	maximum righting arm	All of the above	

4	221	B	Which statement about the free surface effect is TRUE?	It increases in direct proportion to the length of the tank times the breadth squared.	It decreases at increased angles of heel due to pocketing when a tank is 90% full.	It decreases in direct proportion to increasing specific gravity of the liquid in the tank.	In practice, the correction is considered to be a virtual reduction of KG.	
4	222	B	On surface type offshore drilling units, each survival craft must be capable of being launched to the water at the minimum operating draft, under unfavorable conditions of trim and with the unit listed not less than _____.	14°	20°	26°	32°	
4	223	D	The steering oar in a lifeboat is _____.	shorter than the others	used for the stroke oar	used by the forward man in the boat to direct the bow	longer than the others and should be lashed to the stern	
4	224	D	If there is a possibility of confusion, which signal should be used to send the group "True Bearing 045 Degrees"?	45	B045	B045T	A045	
4	226	D	How many low-velocity spray applicators are required on the weather decks of a tankship?	One	Two	Three	Four	
4	227	D	The Emergency Position Indicating Radio beacon on a cargo vessel must be stowed _____.	in an inside passageway	in an approved bracket	so that it is accessible from the bridge of the vessel	so that it will float free if the vessel sinks	
4	228	A	Which is the most serious type of fracture?	Compound	Greenstick	Closed	Crack	
4	229	D	Fuel oil tank vents are fitted with a screen which will stop _____.	oil from flowing out of the tank vent	air from entering the tank vent	vapors from leaving the tank vent	flames on deck from entering the tank vent	
4	230	D	Initial stability of a vessel may be improved by _____.	removing loose water	adding weight low in the vessel	closing crossover valves between partly filled double bottom tanks	All of the above	
4	231	B	The Coast Guard inspection required before a Certificate of Inspection can be issued is conducted_____.	when deemed necessary by the Regional Inspection Center	after you apply in writing to the nearest Officer in Charge of Marine Inspection (OCMI)	at random from a Coast Guard patrol boat	after a formal complaint is filed with the OCMI	
4	232	A	You are tending the lifeline of a person who has entered a compartment wearing a breathing apparatus. How many tugs of the lifeline mean "Are you all right"?	One	Two	Three	Four	
4	233	C	Most enclosed lifeboats will right themselves after capsizing IF the _____.	lower ballast tanks are filled with water	fuel tanks are not less than half full	passengers are strapped to their seats	sea anchor is deployed to windward	
4	234	B	What is the meaning of the flashing light signal "D0910"?	Date September 10	Date October 9	Distance 910 miles	Longitude 9°10'	
4	236	C	What is the maximum number of sleeping accommodations a barge may have before it is required to have fire pumps, hydrants, hose, and nozzles installed?	5	8	12	15	
4	238	B	Unless there is danger of further injury, a person with a compound fracture should not be moved until bleeding is controlled and _____.	the bone has been set	the fracture is immobilized	radio advice has been obtained	the wound has been washed	
4	239	D	Which statement about the free surface correction is TRUE?	It is added to GM at light drafts and subtracted at deep drafts.	It is increased if the slack tank is not on the centerline.	It is decreased if the slack tank is below the KG of the vessel.	The correction decreases as the draft increases due to loading dry cargo.	

4	240	D	According to 46 CFR Subchapter T the definition of a ferry includes vessels that _____.	operate in other than ocean or coastwise service	have provisions only for deck passengers, vehicles, or both	operate on a short run on a frequent schedule between two points over the most direct water route	All of the above	
4	241	A	The signal L1210 means the _____.	latitude is 12°10'	longitude is 12°10'	GMT is 1210	zone time is 1210	
4	242	C	You are in a tank wearing the self-contained breathing apparatus and you desire to return topside. How many tugs of the lifeline mean to take up the slack?	One	Two	Three	Four	
4	244	D	A vessel is flying the signal "BJ-1" from her starboard halyard. The signal means "_____."	an aircraft is ditched in position indicated	the aircraft is still afloat	there is no danger of explosion	an aircraft is circling over an accident	
4	245	B	Storage batteries should be charged in a well ventilated area because _____.	they generate heat	they emit hydrogen	of the toxic fumes they emit	they recharge faster in a well ventilated space	
4	246	A	On a vessel of 125,000 GT on an international voyage, how many international shore connection flange(s) must be provided?	1	2	3	4	
4	247	D	During a stability test on a small passenger vessel _____.	the vessel must be moored snugly	each tank must be partially full to show it does not leak	all dunnage, tools, and extraneous items are secured	water under vessel must be deep enough to prevent grounding	
4	248	D	You are treating a shipmate with a compound fracture of the lower arm. Which action should you take?	Apply a tourniquet to control bleeding then align the bones and splint.	Apply traction to the hand to keep the bones in line, splint, and apply a pressure dressing.	Force the ends of the bones back into line, treat the bleeding, and splint.	Apply a bulky, sterile, pressure dressing to control bleeding, then apply a temporary splint, and obtain medical advice.	
4	249	D	Large quantities of gas in the shale shaker area may be an indication of _____.	a break in the riser system	low formation pressure	a break in the drill string	high formation pressure	
4	250	B	Which will be a result of removing on-deck containers?	KG will increase	Metacentric height will increase	KB will increase	Reserve buoyancy will decrease	
4	251	A	Free communication effect is in direct proportion to _____.	length and width of space	length of space only	width of space only	neither length nor width	
4	252	C	What, when removed, will result in the extinguishment of a fire?	Nitrogen	Sodium	Oxygen	Carbon dioxide	
4	254	A	If you wanted to ask a nearby vessel if he had a doctor on board, you would hoist the flag signal _____.	AM	AL	AN 1	MA	
4	255	C	You are towing a 1000 gross ton gasoline tank barge. Regulations say that cargo tank hatches, ullage holes, and Butterworth plates may remain open without flame screens ONLY _____.	if the barge is towed on a hawser astern	if an approved type B-II fire extinguisher is provided	when the open tanks are gas free	for periods not to exceed five minutes	
4	256	B	What is the minimum number of fire pumps required on a cargo vessel of 2,000 GT?	1	2	3	4	
4	257	C	Which vessel greater than 100 GT is NOT required to have an EPIRB.	A sailing vessel	A fishing vessel	A non self-propelled vessel in tow	A towing vessel	
4	258	D	In any major injury to a person, first aid includes the treatment for the injury and _____.	application of CPR	removal of any foreign objects	administration of oxygen	for traumatic shock	
4	259	C	What does NOT affect the value of the free surface correction?	Width of the tank	Length of the tank	Registered tonnage	Specific gravity of the liquid in the tank	

4	261	A	A person who willfully violates safety regulations may be fined up to $(SA)5,000 and _____.	imprisoned for up to a year	imprisoned for up to five years	forbidden to work in the fishing industry	no other penalty may be applied	
4	262	B	Which fire detection system is actuated by sensing a heat rise in a compartment?	Manual fire detection system	Automatic fire detection system	Smoke detection system	Watchman's supervisory system	
4	264	B	While using the International Code of Signals, if the receiving station can distinguish the flag signal of the transmitting station, but cannot understand the meaning of it, the station can hoist the flag signal _____.	ZP	ZL	ZR	ZK	
4	265	D	The term "discharge", as it applies to the pollution regulations, means _____.	spilling	leaking	pumping	All of the above	
4	266	A	What is the minimum number of fire pumps required on a cargo vessel of 900 GT?	1	2	3	4	
4	267	D	Which type of EPIRB must each ocean-going ship carry?	Class A	Class B	Class C	Category 1	
4	268	C	What is NOT a treatment for traumatic shock?	Keep the patient warm but not hot.	Have the injured person lie down.	Massage the arms and legs to restore circulation.	Relieve the pain of the injury.	
4	269	C	To remedy a leaking fire hose connection at the hydrant, secure the valve and _____.	replace the gasket in the male coupling	reduce fire pump pressure	replace the gasket in the female coupling	rethread the male coupling	
4	270	A	When cargo is shifted from the lower hold to the main deck the _____.	center of gravity will move upwards	GM will increase	center of buoyancy will move downward	All of the above	
4	271	A	A fishing vessel casualty must be reported to the Coast Guard if it involves _____.	loss of life	an injury requiring only first aid	$(SA)10,000 in property damage	loss of equipment which doesn't reduce the vessel's maneuverability	
4	272	B	Fire alarm system thermostats are actuated by _____.	smoke sensors	the difference in thermal expansion of two dissimilar metals	pressure loss due to air being heated	an electric eye which actuates when smoke interferes with the beam	
4	274	B	The flag hoist 62.2 would be sent as pennant 6, pennant 2, _____.	answering pennant, first substitute	answering pennant, second substitute	space, second substitute	answering pennant, third substitute	
4	275	C	When cleaning up an oil spill in U.S. waters you must obtain the approval of the Federal On-Scene Coordinator before using _____.	skimmers	straw	chemical agents	sawdust	
4	276	B	For a cargo vessel of 1,000 GT or over, on an international voyage, the required minimum pitot tube pressure from the two highest outlets when two fire pumps are operating simultaneously is approximately _____.	35 psi	50 psi	70 psi	100 psi	
4	277	B	The vessel's Emergency Position Indicating Radio beacon (EPIRB) must be tested _____.	weekly	monthly	every 2 months	every 3 months	
4	278	B	What is a treatment for traumatic shock?	Administer CPR.	Administer fluids.	Open clothing to allow cooling of the body.	Keep the victim in a sitting position.	
4	280	D	In the regulations that apply to small passenger vessels an "open boat" is a vessel _____.	that is used for charter fishing or tours and is open to the public	on which gambling and consumption of alcoholic beverages is permitted	that is docked and open for visitors	that is not protected from entry of water by means of a complete weathertight deck	

4	281	C	The gross weight of a fully charged CO2 bottle in a fixed CO2 system is 220 lbs. When the bottle is empty it weighs 120 lbs. What is the minimum acceptable gross weight of the CO2 bottle before it should be recharged by the manufacturer?	200 lbs	205 lbs	210 lbs	220 lbs	
4	282	B	The difference in water spray pattern between the high-velocity tip and low-velocity applicator used with the all-purpose nozzle is due to _____.	a difference in water pressure	the method of breaking up the water stream	the length of the applicator	All of the above	
4	283	D	Spreading oil on the open sea has the effect of _____.	diminishing the height of the seas	lengthening the distance between successive crests	increasing the height of the seas	preventing the wave crests from breaking	
4	284	B	What is the correct interpretation of the flag hoist G, 4, 2, 1, first substitute.	G421G	G4214	G421G421	G4211	
4	285	D	The use of sinking and dispersing chemical agents for removal of surface oil is _____.	the most common method used in the United States	too expensive for common use	generally safe to sea life	authorized only with prior approval of the Federal On-Scene Coordinator	
4	286	B	On cargo vessels, the discharge of the required quantity of carbon dioxide into any "tight" space shall be completed within _____.	1 minute	2 minutes	4 minutes	6 minutes	
4	287	C	The Master shall insure that the Emergency Position Indicating Radio beacon (EPIRB) is _____.	secured inside the wheelhouse	tested annually	tested monthly	secured in the emergency locker	
4	288	C	A negative metacentric height _____.	will always cause a vessel to capsize	always results from off-center weights	should always be immediately corrected	All of the above are correct	
4	289	C	You are at the helm of a sailing vessel under sail on the starboard tack, close hauled, and you are instructed to "head up". You should _____.	turn the wheel to port if you are steering with a wheel	push the tiller to starboard if you are steering with a tiller	turn the rudder to starboard	All of the above are correct	
4	290	A	What will happen when cargo is shifted from the main deck into the lower hold of a vessel?	The GM will increase.	The metacenter will move upward.	The center of buoyancy will move upward.	All of the above	
4	291	D	A Certificate of Inspection issued to a small passenger vessel describes _____.	the minimum fire extinguishing equipment, lifejackets, survival and rescue craft she must carry	the name of the managing operator	any special conditions or restrictions on her operation	All the above	
4	292	D	High-velocity fog _____.	is a finer, more diffuse water spray than low-velocity fog	requires that the water pressure be no greater than 60 psi	produces an effective fog pattern no more than 6 feet beyond the nozzle	extinguishes a fire by absorbing heat and reducing the supply of oxygen	
4	293	A	Which statement is TRUE concerning life jackets which are severely damaged?	They should be replaced.	They must be tested for buoyancy before being continued in use.	They can be repaired by a reliable seamstress.	They can be used for children.	
4	294	C	If a receiving station cannot distinguish a signal sent by flag hoist it should _____.	hoist ZQ	hoist ZL	keep the answering pennant at the dip	raise and lower the answering pennant	
4	295	B	The preferred type of pollution control for oil spills on the water is(are) _____.	straw	booms	skimmers	chemical dispersants	
4	296	D	In weighing CO2 cylinders, they must be recharged if weight loss exceeds _____.	10% of weight of full bottle	15% of weight of full bottle	20% of weight of charge	10% of weight of charge	

4	297	B	Which information is NOT required to be posted in or near the wheelhouse?	Stopping time and distance from full speed while maintaining course with minimum rudder	A diagram of advance and transfer for turns of 30°, 60°, 90° and 120° at full speed with maximum rudder and constant power	For vessels with a fixed propeller, a table of shaft RPMs for a representative range of speeds	Operating instructions for change-over procedures for remote steering gear systems	
4	298	A	Which is NOT a symptom of traumatic shock?	Slow, deep breathing	Pale, cold skin	Weak, rapid pulse	Restlessness and anxiety	
4	299	B	Which of the following statements relating to AMVER (Automated Mutual-assistance Vessel Rescue) is TRUE?	An AMVER participant is under greater obligation to render assistance to a vessel in distress than a non-participant.	There is no cost to the ship or owner for messages sent within the AMVER system.	An AMVER participant is not relieved of the obligation to give 24 hour advance notice to the U.S. Coast Guard before entering a U.S. port from offshore.	The AMVER system does not reduce the time lost for vessels responding to calls for assistance.	
4	300	D	In the small passenger vessel regulations a coastwise route is defined as one that is _____.	not more than 50 statute miles from shore in the Gulf of Mexico	on ocean waters more than 200 nautical miles from shore in the Gulf of Alaska	not more than 20 statute miles from the nearest safe harbor in the Pacific Ocean	not more than 20 nautical miles offshore in the ocean	
4	301	A	Which factor has the greatest effect on the value of the free surface correction?	The width of the tank	The length of the tank	The draft of the vessel	The specific gravity of the liquid in the tank	
4	302	B	If you are fighting a fire below the main deck of your vessel, which action is most important concerning the stability of the vessel?	Shutting off electricity to damaged cables	Pumping fire-fighting water overboard	Maneuvering the vessel so the fire is on the lee side	Removing burned debris from the cargo hold	
4	303	D	Plastic material may be thrown overboard from a vessel which is _____.	25 miles from shore	12 miles from shore	3 miles from shore	None of the above are correct.	
4	304	A	What is the correct interpretation of the flag hoist F 2 1 3 second substitute?	F2131	F2132	F213213	F213F213	
4	305	C	It is generally NOT allowed to clean up an oil spill by using _____.	a boom	suction equipment	chemical agents	skimmers	
4	306	A	In areas where CO2 piping is installed, such piping may not be used for any other purpose EXCEPT _____.	in connection with the fire-detecting system	in connection with the water sprinkler system	to ventilate the space	to run the emergency wiring to the space	
4	307	A	Your ship is returning to New Orleans from a foreign voyage and carrying a bulk cargo of anhydrous ammonia. You must notify the Captain of the Port, New Orleans, _____.	at least 96 hours before entering port	if you are not participating in the USMER system	only if you have a hazardous condition aboard	only if your arrival will vary more than six hours from your ETA reported to AMVER	
4	308	B	A person being treated for shock should be wrapped in warm coverings to _____.	increase body heat	preserve body heat	avoid self-inflicted wounds caused by spastic movement	protect the person from injury during transportation	
4	310	D	A vessel's light draft displacement is 7400 tons. The center of gravity at this draft is 21.5 ft. above the keel. The following weights are loaded: (WT. #1-450 tons, VCG #1-17.4 ft.; WT. #2-220 tons, VCG #2-11.6 ft.; WT. #3-65 tons, VCG #3-7.0 ft.). The new CG above the keel is _____.	14.7 feet	17.8 feet	18.7 feet	20.9 feet	
4	311	B	Spontaneous ignition can result from _____.	an unprotected drop-light bulb	careless disposal or storage of material	smoking in bed	worn electrical wires on power tools	

4	312	B	The spray of water in low-velocity fog will have _____.	greater range than high-velocity fog	lesser range than high-velocity fog	about the same range as high-velocity fog	greater range than a solid stream	
4	313	D	Kapok life jackets should NOT be _____.	stowed near open flame or where smoking is permitted	used as seats, pillows, or foot rests	left on open decks	All of the above	
4	314	B	The flag hoist 1.33 would be sent as _____.	1, answer pennant, 3, first substitute	1, answer pennant, 3, second substitute	1, answer pennant, 3, third substitute	N, 1, answer pennant, 3	
4	315	A	The maximum number of passengers a "T-Boat" may carry _____.	is stated on the vessel's Certificate of Inspection	is the number authorized in the Navigation Rules	depends on the number of lifejackets you carry	is the number authorized by your license	
4	316	C	The space containing the cylinders for the carbon dioxide(CO_2) fire extinguishing system must be designed to preclude an anticipated ambient temperature over _____.	80°F	95°F	130°F	150°F	
4	317	B	Your vessel will be entering the navigable waters of the United States. You are required by regulations to _____.	test the primary and secondary steering systems no more than 8 hours before entering	correct the charts of the area to be transited using the Notice(s) to Mariners or foreign equivalent reasonably available	have a copy of Radio Navigational Aids	check the magnetic compass for the correct deviation	
4	318	C	The best treatment for preventing traumatic shock after an accident is to _____.	have the victim exercise to increase circulation	keep the victim from electrical equipment	keep the victim warm and dry while lying down	apply ice packs and avoid excitement	
4	319	C	Foam is effective in combating which class(es) of fire?	A	B	A and B	B and C	
4	320	B	As the displacement of a vessel increases, the detrimental effect of free surface _____.	increases	decreases	remains the same	may increase or decrease depending on the fineness of the vessel's form	
4	321	D	A signal indicating Greenwich mean time would be preceded with _____.	a code hoist to indicate Greenwich mean time to follow	the letter G	the letters GT	the letter Z	
4	322	D	A definite advantage of using water as a fire extinguishing agent is its characteristic of _____.	alternate expansion and contraction as water in a liquid state becomes a vapor	absorption of smoke and gases as water is converted from a liquid to a vapor	rapid contraction as water is converted from a liquid to a vapor	rapid expansion as water absorbs heat and changes to steam	
4	323	C	You must make a written application to obtain or renew your "T" boat's Certificate of Inspection _____.	on form CG-835	at the shipyard where you are hauled out	on form CG-3752	every time your boat is hauled out	
4	324	B	The national distress, safety, and calling frequency is channel _____.	13	16	18	22	
4	325	A	For the purposes of cargo oil containment, the fixed container under the manifold of an eight-inch loading line must hold a minimum of _____.	three barrels	four barrels	six barrels	eight barrels	
4	326	B	CO_2 cylinders, which protect the small space in which they are stored must _____.	NOT contain more than 200 pounds of CO_2	be automatically operated by a heat actuator	have an audible alarm	All of the above	
4	327	D	The maneuvering information required to be posted in the wheelhouse must be based on certain conditions. Which of the following is NOT one of these conditions?	The hull must be clean.	There must be calm weather-wind 10 knots or less and a calm sea.	There must be no current.	The depth of the water must be at least one and one-half times the draft.	

4	328	B	A man has suffered a burn on the arm. There is extensive damage to the skin with charring present. How is this injury classified using standard medical terminology?	Dermal burn	Third-degree burn	Major burn	Lethal burn	
4	329	A	Which statement about the free surface effect is TRUE?	It has the same affect on initial stability whether the tank is 75% full or 25% full.	The free surface effect usually increases at angles of heel above 25°.	The effect increases if the tank is off the centerline.	The effect can be reduced by shifting weights vertically.	
4	330	C	Many vessels are provided with flume tanks, which also have a dump tank located under the flume tanks. In the event the ship is damaged, you could dump the flume tanks into the dump tank which would _____.	reduce the free surface effect and raise the KG	not have any effect on free surface and raise the KG	reduce the free surface effect and lower the KG	not have any effect on free surface and lower the KG	
4	331	D	One of the limitations of foam as an extinguishing agent is that foam _____.	cannot be made with salt water	is heavier than oil and sinks below its surface	is corrosive and a hazard to fire fighters	conducts electricity	
4	332	B	When using a high-velocity fog stream in a passageway, the possibility of a blow back must be guarded against. Blow back is most likely to occur when _____.	pressure builds up in the nozzle which causes a surge of water	the only opening in a passageway is the one from which the nozzle is being advanced	pressure in the fire hose drops below 100 psi	a bulkhead collapses due to heat and pressure	
4	333	B	Which statement is TRUE concerning life preservers (Type I personal flotation devices)?	Buoyant vests may be substituted for life jackets.	Life preservers are designed to turn an unconscious person's face clear of the water.	Life preservers must always be worn with the same side facing outwards to float properly.	Lightly stained or faded life jackets will fail in the water and should not be used.	
4	335	A	Your vessel is carrying 24,000 barrels of oil for discharge. The cargo hoses have an inside diameter of eight inches. The container around the loading manifold must hold _____.	three barrels	four barrels	six barrels	eight barrels	
4	336	B	Carbon dioxide cylinders which protect machinery spaces, paint lockers and tanks may be located within those spaces when the amount of carbon dioxide does not exceed _____.	150 lbs	300 lbs	450 lbs	600 lbs	
4	338	C	A man has a burn on his arm. There is reddening of the skin, blistering, and swelling. Using standard medical terminology this is a _____.	major burn	secondary burn	second-degree burn	blister burn	
4	339	C	If a firefighting situation calls for low-velocity fog you would _____.	order the engine room to reduce pressure on the fire pump	put the lever on an all-purpose fire nozzle all the way forward	attach a low-velocity fog applicator with the nozzle shut down	put the lever on an all-purpose fire nozzle all the way back	
4	340	B	Which statement about the free surface correction is TRUE?	It is added to the uncorrected GM to arrive at the corrected available GM.	It is obtained by dividing the free surface moments by 12 times the volume of displacement.	It is obtained by dividing the total free surface by the total vertical moments.	It is subtracted from the total longitudinal moments before dividing by displacement to find LCG.	
4	341	A	The Master or other vessel representative must contact the nearest Coast Guard Marine Safety Office within five days of a(n) _____.	grounding	injury which requires first aid	accident which requires $(SA)2500 of repairs	All of the above are correct.	

4	342	B	Every injury aboard a commercial fishing industry vessel must be reported to the _____.	Coast Guard	vessel owner or owner's agent	Occupational Safety and Health Administration	National Fisheries Service	
4	343	D	An emergency sea anchor may be constructed by using _____.	a boat bucket	an air tank filled with water	an oar and canvas weighted down	All of the above	
4	345	B	A 100-GT vessel, constructed before July 1,1974, is loading diesel fuel. What is the minimum capacity of the drip pans required for placement under or around each fuel tank vent, overflow, and fill pipe?	1 gallon	5 gallons	1 barrel	2 barrels	
4	346	D	The supply of carbon dioxide used in the fixed extinguishing system aboard a cargo vessel MUST be at least sufficient for _____.	all the spaces of a vessel	all cargo spaces	the engine room and largest cargo space	the space requiring the largest amount	
4	347	B	The danger of a charged hose left unattended on deck with the nozzle open is _____.	the hose could burst	the nozzle end will whip about causing damage or injury	water damage to vessel's cargo or structure	personnel might trip over the hose	
4	348	D	A man has suffered a burn on the arm. There is a reddening of the skin but no other apparent damage. Using standard MEDICAL terminology, this is a _____.	Minor burn	Superficial burn	Extremity burn	First-degree burn	
4	349	C	A marine radar system for surface navigation must be fitted on all ocean or coastwise vessels of over _____.	1,400 GT	1,500 GT	1,600 GT	1,700 GT	
4	350	C	The most detrimental effect on initial stability is a result of liquids _____.	flowing from side to side within the vessel	flowing from fore to aft within a vessel	flowing in and out of a holed wing tank	pocketing in a slack tank as a vessel heels	
4	351	D	What is the meaning of the signal "G1325"?	The GMT is 1325.	The latitude is 13°25'.	The zone time is 1325.	The longitude is 13°25'.	
4	352	D	What is an advantage of water fog or water spray over a straight stream of water in fighting an oil fire?	It has a smothering effect on the fire.	It requires less water to remove the same amount of heat.	It gives more protection to fire fighting personnel.	All of the above	
4	353	B	When a sea anchor is used in landing stern first in a heavy surf, sternway is checked by _____.	slacking the tripping line and towing the sea anchor from the stern	slacking the tripping line and towing the sea anchor by the holding line	towing with the tripping line and leaving the holding line slack	towing the apex end forward with the tripping line	
4	354	C	The distress message of a ship should include considerable information which might facilitate the rescue. This information should _____.	ALWAYS be included in the initial distress message	be sent to a Coast Guard station FIRST	be transmitted as a series of short messages, if time allows	include the vessel's draft	
4	355	A	The center of flotation of a vessel is the point in the waterplane _____.	about which the vessel lists and trims	which coincides with the center of buoyancy	which, in the absence of external forces, is always vertically aligned with the center of gravity	which is shown in the hydrostatic tables as VCB	
4	356	D	The number of pounds of carbon dioxide required for each cargo space on a cargo vessel is equal to _____.	the gross volume of the space in cubic feet divided by 100	one pound of CO_2 per cubic foot of space	one pound of CO_2 per square foot of deck area	the gross volume of the space in cubic feet divided by 30	
4	357	B	The operator of a vessel's radiotelephone must hold at least a _____.	third class radiotelegraph operator certificate	restricted radiotelephone operator permit	general radiotelephone operator license	mates license	

4	358	C	When treating a person for third-degree burns, you should _____.	submerge the burn area in cold water	make the person stand up and walk to increase circulation	cover the burns with thick, sterile dressings	break blisters and remove dead tissue	
4	359	B	A vessel is floating in saltwater at a mean draft of 14 feet. The length of the vessel is 450 feet, beam 50 feet, TPI 45. The BM is 16.34 feet. What is the vessel's displacement in tons?	4,500 tons	6,000 tons	7,560 tons	7,900 tons	
4	360	C	The greatest effect on stability occurs from loose liquids flowing _____.	from side to side in the tanks of the vessel	from fore to aft in the tanks of a vessel	in and out of a vessel that is holed in a wing tank	in and out of a vessel that is holed in a peak tank	
4	361	C	What can be used to measure the percentage of oxygen inside a chain locker?	Flame safety lamp	Combustible gas indicator	Oxygen indicator	H2S meter	
4	362	C	Water fog from an all-purpose nozzle may be used to _____.	fight an electrical fire	fight a magnesium fire	eliminate smoke from a compartment	All of the above	
4	363	B	You are in a lifeboat in a heavy sea. Your boat is dead in the water and unable to make way. To prevent broaching, you should _____.	take no action, broaching is recommended in a heavy sea	put out the sea anchor	put out the sea painter	fill the bottom of the boat with about one foot of water to make it ride better	
4	365	A	What is the minimum fuel-oil discharge-containment needed for a 100 gross ton vessel constructed after June 30,1974?	At least 5 gallons	At least 1 barrel	At least 2 barrels	At least 3 barrels	
4	366	C	You have determined that a cargo space on a freight vessel is 45 feet by 36 feet by 62 feet. How many pounds of carbon dioxide is required for this space?	1674	2511	3348	5022	
4	367	B	A ship's radiotelephone station license is issued by the _____.	U.S. Coast Guard	Federal Communications Commission	Radio Technical Commission for Marine Services	Maritime Mobile Service Commission	
4	369	C	A cargo vessel of 9,000 tons displacement is carrying a slack deep tank of molasses (SG 1.4). The tank measures 20 feet long and 30 feet wide. What will be the reduction in metacentric height due to free surface, with the vessel floating in sea water (SG 1.026)?	.142 ft.	.177 ft.	.195 ft.	.212 ft.	
4	370	C	What is the principal danger from the liquid in a half full tank onboard a vessel?	Corrosion from the shifting liquid	Rupturing of bulkheads from the shifting liquid	Loss of stability from free surface effect	Holing of the tank bottom from the weight of the shifting liquid	
4	372	C	The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.	189 tons	174 tons	158 tons	No loading required	ST-0005
4	373	D	Your vessel is broken down and rolling in heavy seas. You can reduce the possibility of capsizing by _____.	shifting the rudder constantly	moving all personnel forward and low	moving all personnel aft	rigging a sea anchor	
4	374	B	A vessel operating outside of coastal waters must carry an automatically activated Emergency Position Indicating Radio Beacon (EPIRB) if she _____.	does not have berthing facilities	has berthing and galley facilities	is a workboat and her mother ship carries an EPIRB	None of the above are correct.	

4	375	B	Fueling results in the collection of waste oil in drip pans and containers. Which is an approved method of disposing of the waste oil?	Draining it overboard when the vessel gets underway	Placing it in proper disposal facilities	Adding sinking agents and discharging it into the water	Mixing it with dispersants before draining it overboard	
4	376	C	Valves on steam-smothering lines to cargo tanks shall be set with _____.	the master control valve shut and valves to individual cargo tanks shut	the master control valve open and valves to individual cargo tanks shut	the master control valve shut and valves to individual cargo tanks open	all valves open	
4	377	B	The regulations governing the frequencies of the bridge-to-bridge radiotelephone are issued by the _____.	Department of Transportation	Federal Communications Commission	U.S. Coast Guard	Department of Defense	
4	378	B	The FIRST treatment for a surface burn is to _____.	wash the burned area with a warm soap and water solution	flood, bathe, or immerse the burned area in cold water	cover the burned area with talcum powder and bandage it tightly	leave the burned area exposed to the atmosphere	
4	379	D	Plastic material may be discharged overboard from a vessel if it is _____.	3 miles from shore	12 miles from shore	25 miles from shore	None of the above	
4	380	B	You are fighting a fire in a cargo hold on your vessel. Which action is most important concerning the stability of the vessel?	Shutting off electricity to damaged cables	Draining fire-fighting water and pumping it overboard	Maneuvering the vessel so the fire is on the lee side	Removing burned debris from the cargo hold	
4	381	B	What is the meaning of the signal "G0325"?	The distance is 325 miles.	The longitude is 3°25'.	The course is 325°.	Change course to 325°.	
4	382	A	A damaged "T-Boat" that is unable to meet the requirements of its Certificate of Inspection but is able to travel to a shipyard under its own power should _____.	make the trip only after obtaining a "Permit to Proceed to Another Port for Repair", Form CG-948	get underway as soon as possible	hire a tug and pilot instead	request an Expiration Certificate if the vessel displays a tendency to sink	
4	383	C	The purpose of the tripping line on a sea anchor is to _____.	aid in casting off	direct the drift of the vessel	aid in its recovery	maintain maximum resistance to broaching	
4	385	D	You are operating a non-ocean going vessel, how much of the accumulated oily waste must you be able to retain on board?	25%	50%	75%	100%	
4	386	D	On vessels subject to 46 CFR Subchapter T, Certification Expiration Date Stickers _____.	are issued along with a valid Certificate of Inspection (COI) to indicate the date the COI expires	must be readily visible to each passenger prior to boarding and to patrolling Coast Guard law enforcement personnel	must be placed on glass or other smooth surfaces where they may be removed without damage to the vessel	All of the above	
4	387	D	If your vessel is equipped with a radiotelephone, what must also be aboard?	Certificate of Inspection	List of ship stations	Copy of ship to shore channels	Radio station license	
4	388	A	A victim has suffered a second-degree burn to a small area of the lower arm. What is the proper treatment for this injury?	Immerse the arm in cold water for 1 to 2 hours, apply burn ointment, and bandage.	Open any blisters with a sterile needle, apply burn ointment and bandage.	Apply burn ointment, remove any foreign material and insure that nothing is in contact with the burn.	Immerse the arm in cold water for 1 to 2 hours, open any blister and apply burn ointment.	

4	389	C	On a vessel of 9,000 tons displacement, compute the reduction in metacentric height due to free surface in a hold having free water on the tank tops. The hold is 20 feet long and 30 feet wide. The reduction in metacentric height is _____.	.09 feet	.12 feet	.14 feet	.16 feet	
4	390	D	A tank which carries liquid is dangerous to the stability of a vessel when it is _____.	low in the vessel	completely empty	completely full	slack	
4	391	A	Foam is a very effective smothering agent and _____.	it provides cooling as a secondary effect	works well on extinguishing electrical fires	can be used to combat combustible metal fires	All of the above	
4	392	D	What should be used to remove corrosion from the swivel on the female coupling of a fire hose?	Bearing grease and a wire brush	Talc and fine sandpaper	Fish oil and a soft brush	Fresh water, soap, and a stiff brush	
4	393	B	A sea anchor is _____.	a heavy anchor with an extra long line used to anchor in deep water	a cone shaped bag used to slow down the wind drift effect	a pad eye to which the sea painter is made fast	made of wood if it is of an approved type	
4	394	A	If you are transmitting a distress message by radiotelephone you should _____.	use English language	always use the International Code	preface it by the word "Interco"	follow the transmission with the radio alarm signal	
4	395	D	You are operating a 1,000 GT non-ocean going tankship. It must be equipped with _____.	two pumps for discharging oily bilge slops	a fixed piping system for bilge slops with one outlet on each side of the weather deck	a means on the weather deck to stop each pump used to discharge oily waste	None of the above	
4	396	B	Deck foam systems, designed to protect cargo areas on tank vessels built after January 1, 1975, must have a supply of foam-producing material to operate the system at its designed rate of foam production for _____.	15 minutes without recharging	20 minutes without recharging	25 minutes without recharging	30 minutes without recharging	
4	397	A	The Sailing Plan, required by vessels participating in AMVER, must be sent _____.	within a few hours before or after departure	prior to departure	within 24 hours of departure	within 12 hours of departure	
4	398	A	For small, first-degree burns the quickest method to relieve pain is to _____.	immerse the burn in cold water	administer aspirin	apply petroleum jelly	apply a bandage to exclude air	
4	399	C	What is the minimum number of people required to safely handle a 2-1/2 inch fire hose?	1	2	3	4	
4	400	B	Whenever a "T-Boat" is hauled out for repairs or alterations affecting its safety you must _____.	provide a complete set of plans to the Commandant for review	notify the cognizant OCMI	schedule a full safety equipment inspection	Both B and C	
4	401	D	On a vessel of 12,000 tons displacement, what is the reduction in metacentric height due to free surface when a tank 60 feet long and 60 feet wide is partially filled with water?	2.30 feet	2.43 feet	2.48 feet	2.57 feet	
4	402	D	To lubricate the swivel or remove corrosion from a fire hose coupling, you should use _____.	glycerine	graphite	kerosene	fresh water and soap	
4	403	C	Due to the shape of the sea anchor, the best way to haul it back aboard is by _____.	hauling in on the anchor line as you would any anchor	getting all hands to assist	its trip line	cutting the line, as you cannot haul it back in	

4	405	A	A vessel in ocean service that does not have an approved means of processing oily bilge slops or oily ballast must have _____.	a fixed piping system for ballast discharge to a reception facility	a discharge outlet for the ballast system on each side of the weather deck	one portable adapter for a shore connection to the ballast line	All of the above	
4	406	B	A SOLAS passenger ship safety certificate is required on all _____.	T-Boats carrying more than 49 passengers for hire	T-Boats that carry more than 12 passengers on an international voyage	T-Boats carrying more than 150 passengers for hire	large excursion vessels on lakes, bays, sounds, and river routes	
4	407	A	Any person maintaining a listening watch on a bridge-to-bridge radiotelephone must be able to _____.	speak English	repair the unit	send Morse Code	speak a language the vessel's crew will understand	
4	408	C	If a person is unconscious from electric shock, you should first remove him from the electrical source and then _____.	administer ammonia smelling salts	check for serious burns on the body	determine if he is breathing	massage vigorously to restore circulation	
4	409	A	What is the reduction in metacentric height due to free surface when a tank 60 feet long and 30 feet wide is partially filled with salt water, and is fitted with a centerline bulkhead? (The vessel has a displacement of 10,000 tons.)	0.1 foot	0.8 foot	1.0 foot	1.2 feet	
4	410	B	The effect of free surface on initial stability depends upon _____.	the amount of liquid in the compartment	the dimensions of the liquid surface and the vessel's displacement	only the length of the compartment	the vertical position of the liquid in the vessel	
4	411	A	Under Annex V to MARPOL 73/78, garbage discharged from vessels that are located between 3 and 12 nautical miles from nearest land must be ground to less than _____.	1"	1-1/4"	1-1/2"	2"	
4	412	B	To get low-velocity fog from an all-purpose nozzle, you would _____.	attach the bronze nozzle tip to the fog outlet of the nozzle	attach an applicator to the nozzle in place of the bronze nozzle tip	attach an applicator to the solid stream outlet on the nozzle	simply move the handle to the vertical position on the nozzle	
4	413	A	Paint and oil lockers on small passenger vessels must be constructed of or lined with _____.	steel or equivalent material	fiberglass	sheetrock, asbestos, or other material that retards the spread of fire	marine plywood	
4	414	B	A vessel in distress should send by radio telephone the two tone alarm signal followed immediately by the _____.	distress position	spoken words "Mayday, Mayday, Mayday"	ship's name	ship's call letters	
4	415	B	What must ocean going vessels of 100 GT to 400 GT be fitted with for oily mixtures?	A fixed system to discharge the slops overboard	A fixed system to discharge oily mixtures to a reception facility	A portable system to discharge the slops overboard	A portable system to discharge oily mixtures to a reception facility	
4	416	B	Under the regulations for cargo vessels, which statement is TRUE concerning fireman's outfits?	If a vessel carries two outfits, they may be stored in the same location.	Each fireman's outfit shall contain a flame safety lamp of an approved type.	Each fireman's outfit shall contain a fresh-air breathing apparatus.	All of the above	
4	417	D	By regulation, you MUST keep a record of the use of your radiotelephone for at least _____.	one month	four months	six months	one year	
4	418	A	Treatment(s) of heat exhaustion consist(s) of _____.	moving to a shaded area and laying down	bathing with rubbing alcohol	placing the patient in a tub of cold water	All of the above	

4	419	A	The SS AMERICAN MARINER will sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the drafts.	FWD 23'-03", AFT 27'-00"	FWD 23'-07", AFT 26'-07"	FWD 24'-01", AFT 26'-02"	FWD 24'-06", AFT 25'-10"	ST-0006
4	420	D	The most important figure in calculating the free surface constant of a tank carrying liquids is _____.	depth	length	displacement	breadth	
4	421	C	After the initial AMVER Position Report, sent by a vessel sailing foreign, subsequent Position Reports must be sent no less frequently than every _____.	24 hours	36 hours	48 hours	Monday, Wednesday, and Friday	
4	422	B	The all-purpose nozzle will produce a fog spray when you _____.	pull the nozzle handle all the way back toward the operator	pull the nozzle handle back to a position where the handle is perpendicular to the plane of the nozzle	push the nozzle handle forward as far as it will go	insert a fog applicator between the fire hose and nozzle	
4	423	A	When you stream a sea anchor, you should make sure that the holding line is _____.	long enough to cause the pull to be more horizontal than downward	long enough to reach bottom	short enough to cause the pull to be downward	short enough to avoid tangling	
4	424	B	What would be used to call all stations in your vicinity by radiotelephone?	Calling all stations	Charlie Quebec	Alpha Alpha	Kilo	
4	425	A	If you must pump bilges while a vessel is in port, you should pump only _____.	if discharge is led to a shore tank or barge	during the hours of darkness	on the outgoing tide	as much as is necessary	
4	426	C	A 2,000 GT tankship is required to carry _____.	emergency outfits only on an international voyage	one oxygen breathing apparatus with enough lifeline to reach from the open deck to any part of the tanks	two self-contained breathing apparati	two canister type gas masks if such vessel is authorized to carry grade A, B, C or D liquids	
4	427	B	Radio station logs involving communications during a disaster shall be kept by the station licensee for at least _____.	4 years from date of entry	3 years from date of entry	2 years from date of entry	1 year from date of entry	
4	428	C	Physical exertion on the part of a person who has fallen into cold water would _____.	be the best thing to try if there was no rescue in sight	increase survival time in the water	increase the rate of heat loss from the body	not affect the heat loss from the body	
4	429	A	You are at sea and not in a special area as defined in ANNEX V of MARPOL. How many nautical miles from land must you be to discharge ground garbage that will pass through a one-inch (25 mm) screen into the sea?	3 nm	6 nm	12 nm	25 nm	
4	430	C	The effects of free surface on a vessel's initial stability do NOT depend upon the _____.	volume of displacement of the vessel	dimensions of the surface of the liquid	amount of liquid in slack tanks	specific gravity of the liquid in the tank	
4	431	C	The SS AMERICAN MARINER arrived in port with drafts of: FWD 28'-04", AFT 31'-10". Cargo was loaded and discharged as shown. Use sheet 2 in the white pages of The Stability Data Reference Book to determine the final drafts.	FWD 29'-01", AFT 31'-04"	FWD 29'-05", AFT 31'-00"	FWD 29'-08", AFT 30'-09"	FWD 29'-11", AFT 30'-07"	ST-0007
4	432	B	One advantage of the "all-purpose nozzle" is that it _____.	can fit any size hose	converts a stream of water into a fog	increases the amount of water reaching the fire	can spray two streams of water at the same time	

4	433	A	If passengers are on board when an abandon ship drill is carried out, they should _____.	take part	watch	go to their quarters	stay out of the way and do what they want	
4	434	B	You are underway in the Gulf of Mexico when you hear a distress message over the VHF radio. The position of the sender is about 20 miles south of Galveston, TX, and you are about 80 miles ESE of Galveston. What action should you take?	Immediately acknowledge receipt of the distress message	Defer acknowledgment for a short interval so that a coast station may acknowledge receipt	Do not acknowledge receipt until other ships nearer to the distress have acknowledged	Do not acknowledge receipt because you are too far away to take action	
4	435	C	If an emergency pump control is used as the emergency shutdown on a tank vessel, it must _____.	stop the flow of oil at the main deck manifold	prevent the oil from leaving the shore facility	prevent the oil from siphoning through the pump	None of the above	
4	437	D	On small passenger vessels bunks installed in overnight passenger accommodation spaces _____.	must be no less than 74" long and 24" wide with 24" of clear space above	must not be located more than 3 high, fitted with a suitable aid to access bunks more than 5' above deck with suitable aids to access bunks more than 5' above deck	must be immediately adjacent to an aisle leading to a means of escape	All of the above	
4	438	A	A crew member has suffered frostbite to the toes of both feet. You should _____.	immerse the feet in warm water	warm the feet with a heat lamp	warm the feet at room temperature	rub the feet	
4	439	B	Fixed CO2 systems would not be used on crew's quarters or _____.	the paint locker	spaces open to the atmosphere	cargo holds	the engine room	
4	440	A	You are making a heavy lift with the jumbo boom. Your vessel displaces 8390 T. The 40 ton weight is on the pier and its center is 55' to starboard of the centerline. The head of the boom is 110' above the base line and the center of gravity of the lift when stowed on deck will be 45' above the base line. As the jumbo boom takes the strain the ship lists to 3.5°. What is the GM with the cargo stowed?	4.58 feet	4.27 feet	3.93 feet	3.68 feet	
4	441	C	Your vessel is broken down and rolling in heavy seas. You can reduce the possibility of capsizing by _____.	moving all personnel aft	constantly shifting the rudder	rigging a sea anchor	moving all personnel forward and low	
4	442	A	On the all-purpose nozzle, the position of the valve when the handle is all the way forward is _____.	shut	fog	solid stream	spray	
4	444	B	A call between any two ship stations on an intership working frequency shall have a maximum duration of _____.	2 minutes	3 minutes	4 minutes	5 minutes	
4	446	C	The number of fire axes required to be carried on a cargo vessel of 14,000 GT and on an international voyage is _____.	4	6	8	12	
4	447	C	According to the "Vessel Bridge-to-Bridge Radiotelephone Act", what is NOT required in the radiotelephone log?	Distress and alarm signals transmitted or intercepted	Times of beginning and end of watch period	Routine navigational traffic	Daily statement about the condition of the required radiotelephone equipment	

4	448	D	Treatment of frostbite includes _____.	rubbing affected area with ice or snow	rubbing affected area briskly to restore circulation	wrapping area tightly in warm cloths	warming exposed parts rapidly	
4	449	B	On a vessel of 9,000 tons displacement there are two slack deep tanks of palm oil (SG .86). Each tank is 40 feet long and 30 feet wide. What is the reduction in metacentric height due to free surface with the vessel in sea water (SG 1.025)?	.27 ft	.48 ft	.57 ft	.74 ft	
4	450	D	Which type of portable fire extinguisher is best suited for putting out a Class D fire?	Dry chemical	CO2	Foam	Dry powder	
4	452	D	When the handle of an all-purpose nozzle is in the forward position, the nozzle will _____.	produce high-velocity fog	produce low-velocity fog	produce a straight stream	shut off the water	
4	453	B	You must shift a weight from the upper 'tween deck to the lower hold. This shift will _____.	make the vessel more tender	make the vessel stiffer	increase the rolling period	decrease the metacentric height	
4	454	B	Marine Operators, when calling a ship on VHF-FM radiotelephone, normally call on channel _____.	13	16	19	23	
4	455	A	Fuel for use on a vessel (300 GT or more constructed before July 1, 1974) may be carried in independent tanks forward of a collision bulkhead if the _____.	tanks were designated, installed, or constructed for fuel oil carrying before July 1, 1974	tank is 18 inches inboard of the hull structure	shell of the tank is of the same thickness or greater than that of the vessel's hull	fuel has a flash point above 180°F	
4	456	C	On a vessel of 900 GT, the minimum number of fire axes required is _____.	2	4	6	8	
4	457	D	According to the "Vessel Bridge-to-Bridge Radiotelephone Act", your radiotelephone log must contain _____.	a record of all routine calls	a record of your transmissions only	the home address of the vessel's Master or owner	a summary of all distress calls and messages	
4	459	B	What is the minimum number of people required to safely handle a 1-1/2 inch fire hose?	1	2	3	4	
4	460	D	A vessel of not more than 65 feet in length must have a collision bulkhead if it carries more than _____.	6 passengers	12 passengers	36 passengers	49 passengers	
4	461	A	Which statement about transmitting distress messages by radiotelephone is INCORRECT?	It is advisable to follow a distress message on 2182 kHz by two dashes of 10 to 15 seconds duration.	Channel 16 (156.8 MHz) may be used for distress messages.	If no answer is received on the designated distress frequencies, repeat the distress call on any frequency available.	Distress messages should first be transmitted on 2182 kHz.	
4	462	A	When the handle of an all-purpose nozzle is in the vertical position and without an applicator, the all-purpose nozzle will _____.	produce high-velocity fog	produce low-velocity fog	produce a straight stream	shut off the water	
4	463	D	When water-cooled engines are installed on small passenger vessels, the cooling system _____.	pump must operate whenever the engine is operating	must have a suitable hull strainer in the raw water intake	may use a closed fresh water system	All of the above	
4	464	D	You are making a telephone call ship-to-shore using the VHF-FM service. You can tell that the working channel is busy if you hear _____.	speech	signaling tones	a busy signal	All of the above	
4	465	A	A cargo hose is marked with the _____.	maximum working pressure	bursting pressure	safety relief valve setting	maximum temperature	

4	466	D	Deficient oxygen content inside a chain locker can be detected with _____.	litmus paper	a combustible gas indicator	an oxygen breathing apparatus	an oxygen indicator	
4	467	A	Which is the required location of the radiotelephone station aboard a vessel to which the "Vessel Bridge-to-Bridge Radiotelephone Act" applies?	On the bridge or in the wheelhouse	In a separate radio compartment	Adjacent to the main power source	As high as possible on the vessel	
4	470	B	A squeeze-grip type carbon-dioxide portable fire- extinguisher has been partially discharged. It should be _____.	replaced in its proper location if weight loss is no more than 15%	labeled empty and recharged as soon as possible	replaced in its proper location regardless of weight	replaced in its proper location if weight loss is no more than 25%	
4	471	C	In how many locations must lifeboats be installed on a mobile offshore drilling unit?	4	3	2	1	
4	472	C	When the handle of an all-purpose nozzle is pulled all the way back, it will _____.	produce high-velocity fog	produce low-velocity fog	produce a straight stream	shut off the water	
4	473	B	Each small passenger vessel that operates on the high seas, or beyond 3 miles from the coastline of the Great Lakes must have a Category 1 406 MHz EPIRB that _____.	is in good operating condition and is stowed near its charger	will float free and clear of a sinking vessel and automatically activate	is protected against all physical hazards	All of the above	
4	474	A	You are making ship-to-shore telephone calls on VHF. You should use the _____.	VHF-FM service	coastal harbor service	high seas service	emergency broadcast service	
4	475	D	The minimum bursting pressure for each cargo hose assembly must be at least _____.	the sum of the relief valve setting and the static head	twice the sum of the relief valve setting and the static head	three times the sum of the relief valve setting and the static head	four times the sum of the relief valve setting and the static head	
4	476	B	What type of gauging is required for a cargo of formic acid?	Open	Restricted	Closed	None of the above	
4	477	D	The radiotelephone required by the "Vessel Bridge-to-Bridge Radiotelephone Act" is for the exclusive use of _____.	the Master or person in charge of the vessel	a person designated by the Master	a person on board to pilot the vessel	All of the above	
4	478	A	A crew member is unconscious and the face is flushed. You should _____.	lay the crew member down with the head and shoulders slightly raised	administer a liquid stimulant	lay the crew member down with the head lower than the feet	attempt to stand the crew member upright to restore consciousness	
4	480	A	A tanker's mean draft is 32'-05". At this draft, the TPI is 178. The mean draft after loading 1200 tons will be _____.	33'-00"	33'-04"	33'-08"	33'-11"	
4	481	D	How should the letter "D" be pronounced when spoken on the radiotelephone?	DUKE	DA VID	DOG	DELL TAH	
4	482	A	The high-velocity fog tip used with the all-purpose fire fighting nozzle should always be _____.	attached by a chain	coated with heavy grease to prevent corrosion	painted red for identity as emergency equipment	stored in the clip at each fire station	
4	483	A	The SS AMERICAN MARINER is ready to load the cargo listed. There is already 4184 tons of cargo on board with a KG of 27.8 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.	KG 25.8 feet	KG 26.6 feet	KG 27.2 feet	KG 28.0 feet	ST-0008
4	484	D	A message warning of a tropical storm should be sent as a(n) _____.	routine message	urgent message	distress message	safety message	
4	485	B	Cargo hose carried on tank vessels must be designed to withstand the pressure of the shutoff head of the cargo pump or pump relief valve setting, but in no case should it be less than _____.	100 psi	150 psi	200 psi	250 psi	

4	486	A	The SS AMERICAN MARINER arrived in port with drafts of: FWD28'-04", AFT 30'-11". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.	FWD 29'-01", AFT 30'-10"	FWD 29'-03", AFT 30'-08"	FWD 29'-07", AFT 30'-08"	FWD 29'-08", AFT 30'-06"	ST-0009
4	487	B	Which statement is TRUE concerning radiotelephones on board towing vessels?	There cannot be a radiotelephone located anywhere except in the wheelhouse.	The officer in charge of the wheelhouse is considered to have the radiotelephone watch.	Only distress messages may be transmitted over channel 13.	Only the Master of the vessel is allowed to speak over the radiotelephone.	
4	488	A	A rescuer can most easily determine whether or not an adult victim has a pulse by checking the pulse at the _____.	carotid artery in the neck	femoral artery in the groin	brachial artery in the arm	radial artery in the wrist	
4	489	B	An extinguisher with 15 lbs. of CO2 or 10 lbs. of dry chemical is a size _____.	I	II	III	IV	
4	490	A	Which statement relating to AMVER (Automated Mutual-assistance Vessel Rescue) is TRUE?	There is no cost to the ship or owner for messages sent within the AMVER system.	An AMVER participant is under greater obligation to render assistance to a vessel in distress than a non-participant.	An AMVER participant is not relieved of the obligation to give 24 hour advance notice to the U.S. Coast Guard before entering a U.S. port from offshore.	The AMVER system does not reduce the time lost for vessels responding to calls for assistance.	
4	491	D	Before starting to hoist provisions, which should be checked?	Hoist rope is not kinked	Multiple part lines are not twisted around each other	The hook is centrally located over the load	All of the above	
4	492	A	The spray of water produced by using the high-velocity fog position on an all-purpose nozzle will have _____.	greater range than low-velocity fog	lesser range than low-velocity fog	about the same range as low-velocity fog	greater range than a solid stream	
4	493	A	Why are lifeboats usually double-enders?	They are more seaworthy and less likely to be swamped or broach to.	They can go forward and backward more easily.	They require less space for stowing aboard ship.	There is no particular reason for this.	
4	494	B	A message giving warning of a hurricane should have which prefix when sent by radiotelephone?	Pan-Pan (3 times)	Securite Securite Securite	TTT TTT TTT	No special prefix	
4	495	A	No vessel may use or carry an oil transfer hose unless it meets certain requirements. Which of the following is NOT among those requirements?	Metallic reinforcement	A bursting pressure that is at least four times the sum of the relief valve setting and the static head	A working pressure that is more than the sum of the relief valve setting and the static head	Identification markings	
4	496	D	The lifeboat releasing gear lever should be marked with the words _____.	"DANGER, DO NOT TOUCH"	"DANGER, BOAT MAY DROP"	"DANGER, LEVER RELEASES BOAT"	"DANGER, LEVER DROPS BOAT"	
4	497	C	The Coast Guard broadcasts routine weather reports on channels _____.	13 or 14	16 or 17	21A or 22A	44 or 45	
4	498	C	An unconscious person should NOT be _____.	placed in a position with the head lower than the body	given an inhalation stimulant	given something to drink	treated for injuries until conscious	

4	499	D	In setting the valves on a steam-smothering system on a tank vessel, the master control valve to cargo tanks should be _____.	open and individual tank valves open	open and the individual tank valves closed	closed and the individual tank valves closed	closed and the individual tank valves open	
4	500	C	Safety shackles are fitted with _____.	a threaded bolt	a round pin, with a cotter pin	a threaded bolt, locknuts, and cotter pins	round pins and locknuts	
4	501	B	The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.	1292 tons	1248 tons	1211 tons	1172 tons	ST-0010
4	502	D	Penetrations and openings in watertight bulkheads in a small passenger vessel less than 100 gross tons must _____.	be kept as high and as far inboard as possible	not contain sluice valves that allow water to flow freely from one watertight compartment to another	have some means to make them watertight	All of the above	
4	503	B	Your vessel has lifeboats on both sides. Lifeboat No. 2 is located _____.	forward of lifeboat No. 4 on the starboard side	forward of lifeboat No. 4 on the port side	aft of lifeboat No. 1 on the starboard side	All of the above	
4	504	C	If you wished to transmit a message by voice concerning the safety of navigation, you would preface it by the word _____.	Mayday	Pan-pan	Securite	Safety	
4	506	B	The capacity of any liferaft on board a vessel can be determined by _____.	examining the Certificate of Inspection	examining the plate on the outside of the raft container	referring to the Muster List ("Station Bill")	referring to the shipping articles	
4	507	D	While underway, if you are required to have a radiotelephone, you must maintain a continuous listening watch on channel _____.	6 (156.3 MHz)	12 (156.6 MHz)	14 (156.7 MHz)	16 (156.8 MHz)	
4	508	A	Which should NOT be a treatment for a person who has received a head injury and is groggy or unconscious?	Give a stimulant.	Elevate his head.	Stop severe bleeding.	Treat for shock.	
4	509	C	Placing a lashing across a hook to prevent a fitting from slipping out of the hook is called _____.	faking	flemishing down	mousing	worming	
4	510	D	A new crew member aboard your fishing vessel, who has not received any safety instructions or participated in any drills, reports on board. The Master must provide a safety orientation _____.	within one week	within 24 hours	on reporting day if it occurs within normal work hours	before sailing	
4	511	A	The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.	696 tons	520 tons	473 tons	444 tons	ST-0011
4	512	B	The SS AMERICAN MARINER arrived in port with drafts of: FWD 28'-08", AFT 29'-05". Cargo was loaded and discharged as shown. Use sheet 2 in the white pages of The Stability Data Reference Book to determine the final drafts.	FWD 28'-10", AFT 29'-04"	FWD 29'-02", AFT 29'-07"	FWD 29'-04", AFT 29'-04"	FWD 29'-05", AFT 29'-08"	ST-0012
4	513	C	Number 3 lifeboat would be _____.	the forward boat on the starboard side	behind boat number 1 on the port side	behind boat number 1 on the starboard side	behind boat number 2 on the port side	

4	514	A	You hear on the radiotelephone the word "Securite" spoken three times. This indicates that _____.	a message about the safety of navigation will follow	a message of an urgent nature about the safety of a ship will follow	the sender is in distress and requests immediate assistance	you should secure your radiotelephone	
4	515	C	Which statement is TRUE concerning the placard entitled "Discharge of Oil Prohibited"?	It is required on all vessels.	It may be located in a conspicuous place in the wheelhouse.	It may be located at the bilge and ballast pump control station.	All of the above	
4	516	C	Which toxic gas is a product of incomplete combustion, and is often present when a fire burns in a closed compartment?	Carbon dioxide	Hydrogen sulfide	Carbon monoxide	Nitric oxide	
4	517	A	The VHF radiotelephone calling/safety/distress frequency is _____.	156.8 MHz (channel 16)	156.7 MHz (channel 14)	156.65 MHz (channel 13)	156.6 MHz (channel 12)	
4	518	B	A person who gets battery acid in an eye should IMMEDIATELY wash the eye with _____.	boric acid solution	water	baking soda solution	ammonia	
4	519	D	A vessel must have at least two fireman's outfits aboard if she _____.	is documented	is over 100 gross tons	is under foreign articles	has more than 49 people aboard	
4	520	A	What is the displacement of a barge which measures 85' x 46' x 13' and is floating in salt water with a draft of ten feet?	1117 tons	1452 tons	500 tons	17.5 tons	
4	521	B	On a vessel of 6,000 tons displacement there are two slack tanks of carbon tetrachloride (SG 1.6). Each tank is 40 feet long and 25 feet wide. What is the reduction in metacentric height due to free surface with the vessel in sea water (SG 1.025)?	.39 ft	.77 ft	.88 ft	.95 ft	
4	522	B	A spanner is a _____.	cross connection line between two main fire lines	special wrench for the couplings in a fire hose line	tackle rigged to support a fire hose	None of the above	
4	523	C	The bottom row of plating next to the keel of a lifeboat is known as the _____.	sheer strake	bilge strake	garboard strake	keel rib	
4	524	B	The radiotelephone safety message urgently concerned with safety of a person would be prefixed by the word _____.	Mayday	Pan	Safety	Interco	
4	525	C	What would you consult to determine the number of persons required on duty while loading a cargo of leaded gasoline on your tanker?	46 CFR Part 15 (Manning)	Certificate of Inspection	Oil Transfer Procedures Manual	IOPP Certificate	
4	526	D	Motor-propelled lifeboats are required to have sufficient fuel to operate continuously at 6 knots for how many hours?	6	12	18	24	
4	527	C	The VHF radiotelephone frequency designated to be used only to transmit or receive information pertaining to the safe navigation of a vessel is _____.	156.8 MHz (channel 16)	156.7 MHz (channel 14)	156.65 MHz (channel 13)	156.6 MHz (channel 12)	
4	528	D	If a person gets something in his or her eye and you see that it is not embedded, you can _____.	get them to rub their eye until the object is gone	remove it with a match or toothpick	remove it with a piece of dry sterile cotton	remove it with a moist, cotton-tipped applicator	

4	529	A	You are ordering ship's stores. Which statement is TRUE?	Up to five gallons of a flammable liquid may be stowed in the engine room.	All stores of line, rags, linens and other similar type stores must be certified by UL as being fire retardant.	Cylinders containing compressed gasses must be constructed and tested in accordance with the Bureau of Standards.	All distress flares when received must be stored in the portable magazine chest.	
4	530	D	The TPI curve, one of the hydrostatic curves in a vessel's plans, gives the number of tons _____.	necessary to change the angle of list 1° at a given draft	necessary to change trim 1 inch at a given draft	pressure per square inch on the vessel's hull at a given draft	necessary to further immerse the vessel 1 inch at a given draft	
4	531	B	A CO2 portable extinguisher is annually checked by _____.	reading the gage pressure	weighing the extinguisher	discharging a small amount of CO2	seeing if the seal has been broken	
4	532	C	Fire hose should be washed with _____.	salt water and a wire brush	caustic soap	mild soap and fresh water	a holystone	
4	533	D	What is the purpose of limber holes?	To allow for air circulation	To allow for stress and strain in rough waters	To allow water in the boat to drain overboard	To allow water in the bilge to get to the boat drain	
4	534	B	Your vessel has been damaged and is taking on water, but you do not require immediate assistance. You would preface a message advising other vessels of your situation with _____.	Mayday-Mayday-Mayday	Pan-Pan (3 times)	Securite-Securite-Securite	SOS-SOS-SOS	
4	535	D	What is NOT required to be contained in the oil transfer procedures?	A line diagram of the vessel's oil transfer piping	The number of persons on duty during oil transfer operations	Any special procedures for topping off tanks	The location and capacity of all fuel and cargo tanks on the vessel	
4	536	B	A fully loaded motor-propelled lifeboat must be capable of attaining a speed of at least _____.	3 knots in smooth water	6 knots in smooth water	3 knots in rough water	6 knots in rough water	
4	537	B	What frequency has the FCC designated for the use of bridge-to-bridge radiotelephone communications?	156.275 MHz channel 65	156.650 MHz channel 13	157.000 MHz channel 28	157.000 MHz channel 20	
4	538	D	A victim is coughing and wheezing from a partial obstruction of the airway. An observer should _____.	perform the Heimlich maneuver	immediately start CPR	give back blows and something to drink	allow the person to continue coughing and dislodge the obstruction on his own	
4	539	D	On a vessel of 10,000 tons displacement, compute the reduction in metacentric height due to free surface in a hold having free water on tank tops. The hold is 50 feet long and 50 feet wide. The reduction in metacentric height is _____.	1.2 feet	1.1 feet	1.3 feet	1.5 feet	
4	540	D	Of the following, the most important consideration for a tank vessel is _____.	GM	the vertical center of gravity	the longitudinal center of gravity	the stress on the hull	
4	541	C	The signal "AS" when used in signaling by the International Code of Signals means "_____".	Over	Finished with transmission	Wait	Repeat this signal	
4	542	D	Before inserting a low-velocity fog applicator into an all-purpose nozzle, you must _____.	install the high-velocity nozzle tip	move the handle to position 2	move the handle to position 1	remove the high-velocity nozzle tip	D004SA
4	543	B	Aluminum lifeboats are subject to damage by electrolytic corrosion (the aluminum being eaten away). In working around boats of aluminum you must be very careful _____.	to keep the boats covered at all times	not to leave steel or iron tools lying in or near these boats	to keep an electric charge on the hull at all times	to rinse these boats regularly with salt water	

4	544	B	In radiotelephone communications, the prefix PAN-PAN indicates that _____.	a ship is threatened by grave and imminent danger and requests immediate assistance	a calling station has an urgent message about the safety of a person	the message following the prefix will be about the safety of navigation	the message following is a meteorological warning	
4	545	A	The oil transfer procedures aboard a tanker transferring oil are NOT required to contain _____.	the name of each person designated as the person in charge of transfer	a line diagram of the vessel's oil transfer piping	special procedures for topping off tanks	a description of the deck discharge containment system	
4	547	D	Channel 13 (156.65 MHz), the designated bridge-to-bridge channel, may NOT be used to _____.	exchange navigational information between vessels	exchange navigational information between a vessel and a shore station	conduct necessary tests	exchange operating schedules with company dispatcher	
4	548	A	A shipmate chokes suddenly, cannot speak, and starts to turn blue. You should _____.	perform the Heimlich maneuver	make the victim lie down with the feet elevated to get blood to the brain	immediately administer CPR	do nothing until the victim becomes unconscious	
4	549	A	If a vessel takes a sudden, severe list or trim from an unknown cause, you should FIRST _____.	determine the cause before taking countermeasures	assume the shift is due to off-center loading	counterflood	assume the cause is environmental forces	
4	550	B	The normal tendency for a loaded tanker is to _____.	hog	sag	have a permanent list	be very tender	
4	551	B	A shaft alley divides a vessel's cargo hold into two tanks, each 20 ft. wide by 60 ft. long. Each tank is filled with saltwater below the level of the shaft alley. The vessel's displacement is 7,000 tons. What is the reduction in GM due to free surface effect?	.29 feet	.33 feet	.38 feet	.42 feet	
4	552	A	When water pressure of 100 psi is used in conjunction with an inline proportioner for the production of the mechanical foam, a 5-gallon can of liquid foam will last _____.	1-1/2 minutes	2-1/2 minutes	5 minutes	15 minutes	
4	553	C	Which statement is TRUE concerning lifeboat gripes?	They must be released by freeing a safety shackle.	They should not be released until the boat is in lowering position.	They may be adjusted by a turnbuckle.	They are normally used only with radial davits.	
4	554	D	When using the International Code of Signals to communicate, the end of a radiotelephone transmission is indicated by the signal _____.	YZ	CQ	WA	AR	
4	555	D	The transfer procedures for oil products are required to be posted _____.	in the pilothouse	in the officer's lounge	in the upper pumproom flat	where they can be easily seen or readily available	
4	556	B	All lifeboats, rescue boats, and rigid-type liferafts shall be stripped, cleaned, and thoroughly overhauled at least once every _____.	6 months	year	18 months	two years	
4	557	B	Under the "Vessel Bridge-to-Bridge Radiotelephone Act" the frequency for bridge-to-bridge communications is 156.65 MHz or channel _____.	12	13	14	16	
4	558	A	A small passenger vessel operating on exposed or partially protected waters may not have a port light below the weather deck unless _____.	its sill is at least 30 inches above the deepest load waterline	it opens and has a solid, inside, hinged cover	it is made of thick transparent plastic	it is sealed shut	

4	559	C	The maximum draft of the SS AMERICAN MARINER cannot exceed 28'-08" in order to cross a bar. The present drafts are: FWD 28'-00", AFT 29'-00". Use the white pages of the Stability Data Reference Book to determine the minimum amount of sea water to ballast the forepeak to achieve this condition.	44.4 tons	58.0 tons	76.7 tons	116.0 tons	
4	560	B	On small passenger vessels each inlet or discharge pipe penetrating the hull less than six inches above the deepest load waterline _____.	must have a check valve to prevent water from entering	except for engine exhausts must have a means to prevent water from entering the vessel if the pipe fails	must be fitted with a gate valve	must be sealed	
4	561	C	The 12-foot low-velocity fog applicator _____.	has a spray pattern 12 feet in diameter	can be used in conjunction with both 1-1/2 inch and 2-1/2 inch all-purpose nozzles	has a 90° bend at its discharge end	has a screw thread end which connects to the all-purpose nozzle	
4	562	D	One gallon of high expansion foam solution will produce _____.	8 to 10 gallons of foam	25 to 50 gallons of foam	100 to 200 gallons of foam	500 to 1000 gallons of foam	
4	563	B	Which item is of the most use in getting a lifeboat away from a moving ship?	The falls	Sea painter	Boat painter	Boat hook	
4	564	B	If you receive the signal over radiotelephone of "Romeo Papa Tango" while using the International Code of Signals, you should _____.	report to the caller	repeat your last transmission	continue since he received your last transmission	end the transmission	
4	565	C	Small oil spills on deck can be kept from going overboard by _____.	driving wooden plugs into the vents	closing the lids on the vents	plugging the scuppers	plugging the sounding pipes	
4	566	C	Which statement is TRUE concerning a motor lifeboat?	It is propelled by engine or hand-propelling gear.	It has a sufficient fuel capacity, if motorized, for 48 hours of operation.	It must be able to maintain a loaded speed of 6 knots.	All of the above	
4	567	A	On small passenger vessels if an item of lifesaving equipment is carried but not required _____.	the equipment must be approved by the Commandant	it must be removed from the vessel as excess equipment	it may remain aboard the vessel as excess equipment regardless of its condition	it must be destroyed in the presence of a marine inspector	
4	568	D	On a small passenger vessel, if an inlet or discharge pipe is not accessible, its shut off valve _____.	must be operable from the weather deck	may be operable from any accessible location above the bulkhead deck	must be labeled at its operating point to show its identity and direction of closing	All of the above	
4	569	C	A shaft alley divides a vessel's cargo hold into two tanks, each 25 ft. wide by 50 ft. long. Each tank is filled with salt water below the level of the shaft alley. The vessel's displacement is 6,000 tons. What is the reduction in GM due to free surface effect?	.56 foot	.58 foot	.62 foot	.66 foot	
4	570	C	On a vessel of 5,000 tons displacement there are two slack tanks of acid (SG 1.8). Each tank is 30 feet long and 20 feet wide. What is the reduction in metacentric height due to free surface with the vessel in sea water (SG 1.025)?	.11 ft	.21 ft	.40 ft	.82 ft	

4	571	B	To increase the extent of flooding your vessel can suffer without sinking, you could _____.	ballast the vessel	increase reserve buoyancy	lower the center of gravity	raise the center of gravity	
4	572	C	Your tankship has 40 gallons of 6% foam concentrate aboard. Approximately how much foam solution can be produced from this supply?	200 gallons	420 gallons	667 gallons	986 gallons	
4	573	A	The sea painter of a lifeboat should be led _____.	forward and outside of all obstructions	forward and inside of all obstructions	up and down from the main deck	to the foremost point on the ship	
4	574	A	You are calling another vessel by radiotelephone using the International Code of Signals. He responds with the words "Alpha Sierra". This indicates that _____.	he cannot accept traffic immediately	you should proceed with your message	you should send your message in International Code	you should send your message in plain language	
4	575	D	Pollution regulations require that each scupper in an enclosed deck area have a _____.	wooden plug	soft rubber plug	two-piece soft patch	mechanical means of closing	
4	576	B	Each lifeboat must be lowered and maneuvered in the water at least once every _____.	2 months	3 months	4 months	5 months	
4	577	B	All towing vessels of 26 feet or longer while navigating are required to carry which item?	At least two lifeboats	A radiotelephone	A radio direction finder	None of the above	
4	578	B	When fighting fires in spaces containing bottles of LPG (liquefied petroleum gas), you should _____.	attempt to isolate the fire from the LPG	cool the bottles or remove them from the fire area	see that the valves on all LPG bottles are closed	place insulating material over the bottles	
4	579	D	The letter R followed by one or more numbers indicates _____.	a vessel's identity	bearing	visibility	distance	
4	580	B	Freeboard is measured from the upper edge of the _____.	bulwark	deck line	gunwale bar	sheer strake	
4	581	B	You are ordering ships' stores that are NOT consumer commodities. Which statement is TRUE?	All flammable liquids must be stowed in the paint locker or specially constructed integral tanks.	The label of a hazardous ships' store must include instructions for safe stowage.	Replacement CO2 cylinders for the fixed fire fighting system must have been tested within 8 years of receipt.	Cartridges for the line throwing appliance must be stored in the portable magazine chest after receipt.	
4	582	B	Extra chemicals for producing chemical foam should be stored _____.	in a freezer	in a cool dry place	at a temperature not less than 80°F	in open bins	
4	583	D	The minimum length of the painter for a lifeboat in ocean service is _____.	60 fathoms	the distance from the main deck to the light waterline	twice the distance from the main deck to the light waterline or 50 feet whichever is greater	two times the distance from the boat deck to the light waterline or 50 feet whichever is greater	
4	584	D	The SS AMERICAN MARINER arrived in port with drafts of: FWD28'-08", AFT 29'-05". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.	FWD 28'-09", AFT 29'-00"	FWD 28'-07", AFT 29'-01"	FWD 28'-05", AFT 29'-08"	FWD 28'-04", AFT 29'-05"	ST-0013
4	585	C	How long must a "Declaration of Inspection" be kept on board?	One week	Two weeks	One month	Three months	
4	586	C	On small passenger vessels, which material must not be used in a valve or fitting for a hull penetration?	Cast bronze	Plastic	Cast iron	Stainless steel	
4	587	D	Which vessel is NOT required to have a radiotelephone?	A 34-foot vessel engaged in towing	A dredge operating in a channel	A vessel of 100 GT carrying 50 passengers for hire	A 12-meter private yacht	

4	588	D	At night while the ship is tied up to the dock, a fire breaks out in a cargo hatch. After sounding the alarm, what should the person on watch do?	Begin fighting the fire immediately.	Await further orders from the Master.	Let go the lines to let the vessel drift to an anchorage.	Send a person to summon the shore authorities.	
4	589	A	Fires are grouped into what categories?	Class A, B, C, and D	Type 1, 2, 3, and 4	Combustible solids, liquids, and gases	Flammable solids, liquids, and gases	
4	590	B	The distance between the waterline of a vessel and the main deck is called _____.	draft	freeboard	buoyancy	camber	
4	591	D	The SS AMERICAN MARINER has the following drafts: FWD 09'-00", AFT 15'-11". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability data Reference Book to determine the minimum GM required to meet a one compartment standard.	2.82 feet	2.97 feet	3.15 feet	3.24 feet	ST-0014
4	592	B	A foam-type portable fire extinguisher would be most useful in combating a fire in _____.	solid materials such as wood or bales of fiber	flammable liquids	a piece of electrical equipment	combustible metallic solids	
4	593	A	The sea painter is secured in the lifeboat by _____.	a turn around a forward thwart with a toggle pin thru the eye	a knot around a thwart	an eye splice placed over one of the hooks of the releasing gear	All of the above	
4	595	C	How long shall the operator of a vessel employed in the transferring of oil to other vessels keep the Declaration of Inspection of those transfers?	1 week from date of signature	2 weeks from date of signature	1 month from date of signature	6 months from date of signature	
4	596	C	The Master of a cargo or tank vessel shall be responsible that each lifeboat, except those free-fall launched, is lowered to the water with crew and maneuvered at least once every _____.	week	month	three months	year	
4	597	D	The "Vessel Bridge-to-Bridge Radiotelephone Act" applies to _____.	every towing vessel of 16 feet or over in length while navigating	every vessel of 50 GT and upward, carrying one or more persons for hire	all aircraft operating on the water	every power-driven vessel of 20 meters and upward while navigating	
4	598	B	A fire must be ventilated _____.	when using an indirect attack on the fire such as flooding with water	to prevent the gases of combustion from surrounding the firefighters	to minimize heat buildup in adjacent compartments	if compressed gas cylinders are stowed in the compartment on fire	
4	599	C	When starting CPR on a drowning victim, you should _____.	start chest compressions before the victim is removed from the water	drain water from the lungs before ventilating	begin mouth-to-mouth ventilations as soon as possible	do not tilt the head back since it may cause vomiting	
4	600	C	The amount of freeboard which a ship possesses has a tremendous effect on its _____.	initial stability	free surface	stability at large angles of inclination	permeability	
4	602	C	What does "EPIRB" stand for?	Emergency Position Indicating Radar Buoy	Electronic Pulse Indicating Radio beacon	Emergency Position Indicating Radio beacon	None of the above	
4	603	C	The painter which is to be attached to the thwart of a lifeboat should _____.	be fitted at the end with an approved safety shackle	have a long eye splice at the end, and a shackle and pin should be attached to the painter with a lanyard	have a long eye splice at the end, and a hardwood toggle should be attached to the thwart with a lanyard	be fitted with a swivel and quick-releasing pelican hook	

4	604	D	To prevent loss of stability from free communication flooding you should _____.	close the cross-connection valve between the off-center tanks	completely flood high center tanks	ballast double bottom wing tanks	close any opening to the sea in an off-center tank	
4	605	D	The operator of a vessel subject to the pollution regulations shall keep a written record available for inspection by the COPT or OCMI containing _____.	the name of each person currently designated as a person in charge	the date and result of the most recent test on the system relief valves	hose information including the minimum design burst pressure for each hose	All of the above	
4	606	B	When lifeboat winches with grooved drums are fitted on a vessel the lead sheaves to the drums shall be located to provide fleet angles of not more than _____.	4°	8°	12°	16°	
4	607	C	The "Vessel Bridge-to-Bridge Radiotelephone Act" applies to which towboat?	A 100 GT towboat, 24 feet in length	A 90-foot towboat tied to the pier	A 60-foot towboat towing by pushing ahead	A 400 GT towboat anchored	
4	608	C	A fire of escaping liquefied flammable gas is best extinguished by _____.	cooling the gas below the ignition point	cutting off the supply of oxygen	stopping the flow of gas	interrupting the chain reaction	
4	609	D	Which small passenger vessel(s) is/are NOT required to carry a Category 1 406 MHz EPIRB?	A coastwise vessel whose route does not take it more than three miles from shore	A vessel operating on lakes, bays, sounds, and rivers	A vessel operating within three miles from the coastline of the Great Lakes	All of the above	
4	610	D	The amount of freeboard which a ship possesses has a tremendous effect on its _____.	initial stability	free surface	permeability	stability at large angles of inclination	
4	611	D	The maximum mean draft to which a vessel may be safely loaded is called _____.	mean draft	calculated draft	deep draft	load line draft	
4	612	A	The service life of distress signals must be not more than _____.	forty two months from the date of manufacture	thirty six months from the date of the last inspection	twenty four months from the date of approval	twelve months from the date of purchase	
4	613	C	The length of the steering oar in a lifeboat is _____.	shorter than the rowing oars	the same length as the rowing oars	longer than the rowing oars	unrelated to the length of the rowing oars	
4	614	C	Your vessel is damaged and listing to port. There is a short rolling period around the angle of list. The port side freeboard is reduced to 1 foot. There is no trim and the weather is calm. You should FIRST _____.	press up a slack double bottom tank on the port side	fill an empty centerline double bottom tank	pump out a slack marine portable tank located on the portside amidships	jettison the anchors and anchor cables	
4	615	C	The operator of each vessel subject to the pollution regulations is NOT required to keep written records of _____.	the name of each person designated as a person in charge	the date and results of the most recent equipment inspection	cargoes carried and dates delivered, including destinations	hose information not marked on the hose	
4	616	D	Winch drums for lifeboat falls shall have a diameter at the base of the groove equal to at least _____.	6 times the diameter of the wire rope	8 times the diameter of the wire rope	12 times the diameter of the wire rope	16 times the diameter of the wire rope	
4	617	B	For the purposes of distress signaling, small passenger vessels that operate on runs of more than 30 minutes duration on lakes, bays and sounds, and river routes must carry _____.	A radiotelephone	Three hand red flare distress signals, and three hand orange smoke distress signals	A "Very" pistol and flare kit	An approved noise-making device	
4	618	C	You are on watch at night in port and discover a fire in #1 hatch. Which action should you take FIRST?	Advise the Chief Mate and Master.	Release carbon dioxide into the hatch.	Sound the general alarm.	Lead a fire hose to the hatch.	
4	619	D	A fire in the galley ALWAYS poses the additional threat of _____.	contaminating food with extinguishing agent	spreading through the engineering space	causing loss of stability	a grease fire in the ventilation system	

4	620	A	A vessel's LCG is determined by _____.	dividing the total longitudinal moment summations by displacement	dividing the total vertical moment summations by displacement	multiplying the MT1 by the longitudinal moments	subtracting LCF from LCB	
4	621	D	The color of the signal flare sent up by a submarine about to surface because of an emergency on board is _____.	white	green	yellow	red	
4	622	B	Most enclosed lifeboats will right themselves after capsizing IF the _____.	lower ballast tanks are filled with water	passengers are strapped to their seats	sea anchor is deployed to windward	fuel tanks are not less than half full	
4	623	B	In how many locations must lifeboats be installed on a mobile offshore drilling unit?	1	2	3	4	
4	624	C	Each EPIRB and SART for lifeboats shall be tested _____.	weekly	every 2 weeks	monthly	every 3 months	
4	625	B	When the Captain of the Port or Officer in Charge, Marine Inspection issues an order of suspension to the operator of a vessel concerning oil transfer operations, it _____.	is always effective immediately	includes a statement of each condition requiring corrective action	must be in writing before it takes effect	All of the above	
4	627	D	Distress flares and smoke signals for small passenger vessels _____.	are not required aboard vessels on runs of less than 30 minutes duration	must be Coast Guard approved and stowed in a portable, watertight container	must be marked with an expiration date not more than 42 months from the date of manufacture	All of the above	
4	628	D	The most likely location for a liquid cargo fire to occur on a tanker would be _____.	in the midships house	at the main deck manifold	at the vent header	in the pumproom	
4	629	B	Sign(s) of respiratory arrest requiring artificial respiration is(are) _____.	vomiting	blue color and lack of breathing	irregular breathing	unconsciousness	
4	630	D	Reserve buoyancy is _____.	also called GM	the void portion of the ship below the waterline which is enclosed and watertight	affected by the number of transverse watertight bulkheads	the watertight portion of a vessel above the waterline	
4	631	A	You are at the helm of a ketch-rigged sailing vessel under sail on the starboard tack, close hauled, with all appropriate sails set and properly trimmed. You are instructed to "bear off quickly". To utilize your sails to assist with the turn, you should _____.	slack the mizzen sheet	trim the mizzen vang	slack the jib sheet	trim the main outhaul	
4	632	B	Portable foam type fire extinguishers are most effective on _____.	mattress fires	oil fires	wood fires	All of the above	
4	633	D	A sweep oar is an oar that is _____.	generally shorter than the others and is used to steer with	is longer than the others and is used as the stroke oar	is raised in the bow of the boat for the steersman to steer by	longer than the others used for steering	
4	634	C	You are fighting a fire in a watertight compartment using hoses and salt water. Stability may be reduced because of _____.	progressive downflooding	reduction of water in the storage tanks	increase in free surface which reduces the metacentric height	reduction of KG to the minimum allowable	
4	635	C	The person in charge on the vessel and the person in charge at the facility must hold a meeting before starting the transfer of oil. Who must decide to start the transfer?	The person in charge on the vessel	The person in charge at the facility	Both persons in charge	The person in charge of either place that is doing the pumping	

4	636	A	What is required by regulations concerning the stowage of lifeboats on cargo vessels?	Each lifeboat must have a launching appliance.	Launching appliances must be of the gravity type.	There may not be more than two launching appliances on the same deck.	All of the above	
4	637	A	The date and time kept in the radiotelephone log shall commence at _____.	midnight	noon	beginning of the watch	any convenient time	
4	638	D	You are on watch at sea, at night, when the ordinary seaman reports a fire in number five upper 'tween deck. Which of the following should NOT be done immediately?	Sound the general alarm	Secure mechanical cargo hold ventilation	Call for water on deck	Release carbon dioxide into the affected compartment	
4	639	A	A fire hose with a nozzle attached must be connected to each hydrant except when exposed to heavy weather or when the _____.	fire hose might be damaged by cargo operations	vessel is in port	fire-main system is not charged	fire pumps are used for purposes other than supplying water to the fire main	
4	640	C	The volume of a vessel's intact watertight space above the waterline is its _____.	free surface	marginal stability	reserve buoyancy	freeboard	
4	641	B	You are on a supply run to an offshore drilling rig. On board is the cargo listed. What is the height above the main deck of the center of gravity of the cargo?	1.76 feet	1.97 feet	2.21 feet	2.32 feet	ST-0015
4	642	A	As an extinguishing agent, foam _____.	conducts electricity	should be directed at the base of the fire	is most effective on burning gases which are flowing	extinguishes by cooling oil fires below ignition temperature	
4	643	C	The steering oar in a lifeboat is usually referred to as the _____.	bumpkin oar	stroke oar	sweep oar	becket oar	
4	644	C	The difference between the forward and aft drafts is _____.	list	heel	trim	flotation	
4	645	D	A tug should not come alongside a tank vessel in way of its cargo tanks while it is loading grade A, B, or C cargo without the permission of the _____.	the cognizant OCMI	superintendent of the shoreside facility	local fire department	person in charge of the transfer	
4	647	A	Under the "Vessel Bridge-to-Bridge Radiotelephone Act", the maximum power of all transmitters used shall be not more than _____.	25 watts	50 watts	75 watts	100 watts	
4	648	C	Ring life buoys used aboard a small passenger vessels on oceans or coastwise routes are required to be what color?	White	White or international orange	Orange	Any highly visible color easily seen from the air	
4	649	D	The lifeline of a life float or buoyant apparatus shall _____.	be at least 3/8 inch diameter and properly secured around the sides and ends of the device	be festooned in bights not longer than three feet long	have a seine float in each bight unless the line is an inherently buoyant material	All of the above	
4	650	D	Which is an indication of reserve buoyancy?	Metacentric height	Righting moment	Rolling period	Freeboard	
4	651	D	Small passenger vessels not limited to service during daylight hours must carry _____.	a radar maintained in good operating condition	a collision bulkhead	a white 20 point anchor light	at least one floating water light	
4	652	C	How does foam extinguish an oil fire?	By cooling the oil below the ignition temperature	By removing the fuel source from the fire	By excluding the oxygen from the fire	By increasing the weight of the oil	

4	653	D	A tank vessel transferring non-flammable hazardous cargo in bulk must display warning signs. These signs must _____.	be visible from both sides and from forward and aft	indicate "NO SMOKING"	be displayed only while transferring cargo and fast to a dock	use black lettering on a white background	
4	654	D	Which of the following statements about transmitting distress messages by radiotelephone is INCORRECT?	Distress messages should first be transmitted on 2182 kHz.	Channel 16 (156.8 MHz) may be used for distress messages.	If no answer is received on the designated distress frequencies, repeat the distress call on any frequency available.	It is advisable to follow a distress message on 2182 kHz by two dashes of 10 to 15 seconds duration.	
4	655	D	The spread of fire is NOT prevented by _____.	shutting off the oxygen supply	cooling surfaces adjacent to the fire	removing combustibles from the endangered area	removing smoke and toxic gases by ensuring adequate ventilation	
4	656	C	The governor brake on a lifeboat winch shall be capable of controlling the speed of lowering a fully equipped lifeboat from a cargo ship at _____.	a safe speed only specified	not less than 120 feet per minute	not more than 120 feet per minute	not more than 90 feet per minute	
4	657	A	What is the normal operating power for ship-to-ship communications on channel 13?	1 watt or less	5 watts	10 watts	20 watts	
4	658	D	The ventilation system of your ship has fire dampers restrained by fusible links. Which statement is TRUE?	A fusible link will automatically open after a fire is extinguished and reset the damper.	Fusible links must be replaced at every inspection for certification.	Fusible links are tested by applying a source of heat to them.	Fusible links must be replaced if a damper is activated.	
4	659	B	A vessel carries three slack tanks of gasoline (SG .68). The vessel's displacement is 8,000 tons. Each tank is 50 ft. long and 20 ft. wide. What is the reduction in GM due to free surface with the vessel floating in sea water (SG 1.026)?	.20 feet	.24 feet	.28 feet	.30 feet	
4	660	A	Reserve buoyancy is _____.	the watertight part of a vessel above the waterline	the void portion of the ship below the waterline which is enclosed and watertight	transverse watertight bulkheads	a measure of metacentric height	
4	661	C	The Master of a fishing vessel must ensure that each crew member participates in at least one fire drill every _____.	day	week	month	3 months	
4	662	C	Foam extinguishes a fire mainly by _____.	cooling	chemical action	smothering	inerting the air	
4	663	C	Stretchers are fitted in lifeboats to provide a _____.	place for people to lie down	means for rigging the sail	place for rowers to brace their feet	suitable means for water to drain below the footings	
4	664	C	Your vessel is in distress and you have made radiotelephone contact with a U.S. Coast Guard vessel. The Coast Guard vessel requests that you give him a long count. This indicates that _____.	your radio transmitter is not working properly	the Coast Guard vessel is testing its receiver	the Coast Guard vessel is taking a radio direction finder bearing on your vessel	the Coast Guard vessel is requesting your position in latitude and longitude	

4	665	A	Who may serve as the "person in charge" of loading and discharge operations aboard a tankship?	A licensed officer who holds a tankerman-PIC endorsement	The pumpman who has a tankerman assistant endorsement	The Master	The bosun	
4	667	A	Failure to comply with, or enforce, the provisions of the "Vessel Bridge-to-Bridge Radiotelephone Act" can result in a _____.	$500 civil penalty charged against the person in charge of the vessel	$1500 civil penalty charged against the person in charge of the vessel	$500 criminal penalty charged against the Master	$1500 criminal penalty charged against the Master	
4	668	C	The midships house of your break bulk ship is constructed with an interior stair tower from the main deck to the bridge. Under what circumstances may the doors from each deck to the stair tower be kept open when underway?	They are to be kept closed at all times.	They may be kept open if the ventilation or air conditioning system is shut down.	They may be kept open if they can be automatically closed from the bridge.	They can be kept open if the Muster List ("Station Bill") has personnel designated to close them in case of fire.	
4	669	D	You are ordering ships' stores. Which statement is TRUE?	Aerosol cans of engine starting fluid must be stowed in either the paint locker or portable magazine after receipt.	Drugs and medicines must be stowed in accordance with the directives of the Food and Drug Administration.	Flammable ship's stores must be certified for use on inspected vessels by Underwriter's Laboratories.	Properly labeled consumer commodities need not be labeled in accordance with Title 46 CFR.	
4	670	C	Which action will affect the trim of a vessel?	Moving high weights lower	Adding weight at the tipping center	Moving a weight forward	All of the above	
4	671	D	When signaling a course using the International Code of Signals, the signal _____.	must be followed by "T", "M" or "C" to indicate if it is true, magnetic or compass	should be preceded by the letters CSE	should include the compass deviation if a compass course is signaled	always indicates a true course unless indicated otherwise in the message	
4	672	B	A foam-type portable fire extinguisher is most useful in fighting a fire in _____.	generators	oil drums	the bridge controls	combustible metals	
4	673	A	The grab rail of a metal lifeboat is normally located _____.	along the turn of the bilge	along each side of the keel	near the top of the gunwale	at the bow and at the stern	
4	674	B	A distress frequency used on radiotelephone is _____.	400 kilohertz	2182 kilohertz	2728 kilohertz	8221 kilohertz	
4	675	C	Who completes the Declaration of Inspection before loading a tank vessel?	The U.S. Coast Guard	The manager of the shore facility	The person(s) designated in-charge	The American Bureau of Shipping	
4	676	C	Your vessel has 3 lifeboats on each side. The middle boat on the starboard side is designated as boat number _____.	2	2 STARBOARD	3	4	
4	677	B	A vessel which violates the "Vessel Bridge-to-Bridge Radiotelephone Act" may be fined up to _____.	$100	$500	$1,000	$1,500	
4	678	D	Fire may be spread by which means?	Conduction of heat to adjacent surfaces	Direct radiation	Convection	All of the above	
4	679	C	All of the following are part of the fire triangle EXCEPT _____.	heat	oxygen	electricity	fuel	
4	680	C	The ship's tanks most effective for trimming are the _____.	deeps	domestics	peaks	settlers	
4	681	D	Size III, IV, and V extinguishers are considered _____.	hand portable	all purpose	fixed extinguishers	semi-portable	

4	682	C	How are lifelines attached to a life float?	By serving	By splicing one end of the line around the apparatus	Securely attached around the outside in bights no longer than three feet	With an approved safety hook or shackle	
4	683	D	The purpose of air tanks in a lifeboat is to _____.	make the boat float higher	provide a stowage place for provisions	add strength to the boat	keep the boat afloat if flooded	
4	684	B	The Coast Guard emergency radiotelephone frequency is _____.	2132 kilohertz	2182 kilohertz	2670 kilohertz	2750 kilohertz	
4	685	B	The operator of each vessel engaged in a vessel-to-vessel oil transfer operation must keep a signed copy of the declaration of inspection for _____.	10 days	1 month	6 months	1 year	
4	686	A	You should be most concerned about a possible explosion or fire in fuel tanks _____.	during fueling when the fuel first strikes the tank bottom	during fueling when the fuel strikes fuel already in the tank	when underway as the fuel is moved by wave action	shortly after fueling when fuel vapors gather	
4	687	D	The Master or person in charge of a vessel subject to the "Vessel Bridge-to-Bridge Radiotelephone Act" who fails to comply with the Act or the regulations thereunder may be fined not more than _____.	$2,000	$1,500	$1,000	$500	
4	688	D	Which may ignite fuel vapors?	Static electricity	An open and running motor	Loose wiring	All of the above	
4	689	C	After a person has been revived by artificial respiration, he should be _____.	walked around until he is back to normal	given several shots of whiskey	kept lying down and warm	allowed to do as he wishes	
4	690	D	Those ship's tanks that are particularly important for trimming the ship are the _____.	domestics	settlers	deeps	peaks	
4	692	D	Why should foam be banked off a bulkhead when extinguishing an oil fire?	To coat the surrounding bulkheads with foam in case the fire spreads	To cool the bulkhead closest to the fire	To prevent any oil on the bulkheads from igniting	To prevent agitation of the oil and spreading the fire	
4	693	B	You are operating a fire hose with an applicator attached. If you put the handle of the nozzle in the vertical position you will _____.	produce high-velocity fog	produce low-velocity fog	produce a straight stream	shut off the water	
4	694	C	What is the international distress frequency for radiotelephones?	500 kHz	1347 kHz	2182 kHz	2738 kHz	
4	695	C	The Declaration of Inspection made before oil transfer operations must be signed by the _____.	Master of the vessel	Captain of the Port	person(s) in charge	All of the above	
4	696	D	For each person it is certified to carry, a lifeboat on an oceangoing passenger vessel must be provided with all of the following EXCEPT _____.	3 liters of water	1 unit of provisions	1 seasickness kit	1 life preserver	
4	697	A	A violation of the "Vessel Bridge-to-Bridge Radiotelephone Act" may result in a _____.	civil penalty of $550 against the Master or person in charge of a vessel	civil penalty of $1,000 against the vessel itself	suspension and/or revocation of an operator's FCC license	All of the above	
4	698	D	The spread of fire is prevented by _____.	cooling surfaces adjacent to the fire	removing combustibles from the endangered area	shutting off the oxygen supply	All of the above	
4	699	B	What is the minimum length of a life floats paddle on a small passenger vessel?	Three feet	Four feet	Five feet	Six feet	

4	700	B	Intact buoyancy is a term used to describe _____.	the volume of all intact spaces above the waterline	an intact space below the surface of a flooded area	an intact space which can be flooded without causing a ship to sink	the space at which all the vertical upward forces of buoyancy are considered to be concentrated	
4	701	D	Which statement about free surface is TRUE?	A partially filled space with 40% surface permeability will have greater free surface effect than one with 60% surface permeability.	Pocketing increases the loss of GM due to free surface effect.	Cargo with a specific gravity of 1.05 has less free surface effect than a cargo with a specific gravity of 0.98.	Pocketing occurs at small angles of inclination when a tank is 98% full.	
4	702	A	Which statement about firefighting foam is TRUE?	Foam conducts electricity.	To be most effective, foam should be directed at the base of the fire.	Foam is most effective on burning liquids which are flowing.	Foam can ONLY be used to extinguish class A fires.	
4	704	D	Which radiotelephone transmission may be sent over channel 16?	Distress signal MAYDAY	Call to a particular station	A meteorological warning	All of the above	
4	705	C	Your vessel is at a dock taking bunkers. If oil begins to flow out of a tank vent, what should you do FIRST?	Open the intake valve to an adjacent tank.	Set out drip pans and sawdust and begin to mop up the spill.	Signal the shore control point to shut down.	Close the valve on the tank vent line.	
4	706	D	The painter on a life float or buoyant apparatus shall _____.	have a minimum breaking strength of 3,000 lbs. if the capacity of the lifesaving gear is 50 persons or greater	be resistant to ultraviolet sunlight deterioration	be stowed to pay out freely if the vessel sinks	All of the above	
4	707	D	If your bridge-to-bridge radiotelephone ceases to operate, you must _____.	immediately anchor your vessel and arrange for repairs to the system	moor your vessel at the nearest dock available and arrange for repairs to the system	arrange for the repair of the system to be completed within 48 hours	exercise due diligence to restore the system at the earliest practicable time	
4	708	D	Removing which will extinguish a fire?	Nitrogen	Carbon dioxide	Sodium	Oxygen	
4	709	B	What is the reduction in metacentric height due to free surface when a tank 60 ft. wide and 60 ft. long is partially filled with saltwater? (The vessel's displacement is 10,000 tons.)	3.00 feet	3.09 feet	3.15 feet	3.20 feet	
4	710	A	Buoyancy is a measure of the ship's _____.	ability to float	deadweight	freeboard	midships strength	
4	711	A	When administering artificial respiration to an adult, the breathing cycle should be repeated about _____.	12 to 15 times per minute	18 to 20 times per minute	20 to 25 times per minute	as fast as possible	
4	712	C	Which statement is TRUE concerning the application of foam on an oil fire?	It cools the surface of the liquid.	It gives protection to fire fighting personnel against the heat of the fire.	It forms a smothering blanket on the surface of the oil.	It should be used at the same time a solid stream of water is being applied.	
4	713	D	Preventer bars are fitted on lifeboat releasing gear to prevent _____.	the falls from unhooking if the releasing gear is operated accidentally	operation of the release lever until the boat is waterborne	the falls from rehooking after they have been released	accidental unhooking when the falls become slack	

4	714	D	A Coast Guard radiotelephone message about an aid to navigation that is off station is preceded by the word _____.	"PAN-PAN"	"MAYDAY"	"SOS"	"SECURITY"	
4	715	D	Your vessel is taking on fuel when a small leak develops in the hose. You order the pumping stopped. Before you resume pumping, you should _____.	notify the terminal superintendent	place a large drip pan under the leak and plug the scuppers	repair the hose with a patch	replace the hose	
4	716	C	The required amount of water for each person in a lifeboat on an oceangoing vessel, on an international voyage, is _____.	1 liter	2 liters	3 liters	4 liters	
4	717	D	If your radiotelephone fails while underway, _____.	you must visually signal oncoming vessels	you must immediately tie up in the nearest port until the radiotelephone is repaired	you must anchor until the radiotelephone is repaired	the loss of the radiotelephone must be considered in navigating the vessel	
4	718	B	Painters fitted to life floats and buoyant apparatus with a capacity of 49 or less persons must _____.	be of manila rope or equivalent, not less than two inches in circumference and not less than four fathoms long	be 100 feet long and have a breaking strength of at least 1500 lbs.	be at least 100 feet long and have a breaking strength of 3,000 lbs.	be made of 90 feet of 3/8" nylon	
4	719	D	A fire hose has a _____.	male coupling at both ends	female coupling at both ends	female coupling at the nozzle end and a male coupling at the hydrant end	male coupling at the nozzle end and a female coupling at the hydrant end	
4	720	A	The center of volume of the immersed portion of the hull is called the _____.	center of buoyancy	center of flotation	center of gravity	tipping center	
4	721	A	Forces within a vessel have caused a difference between the starboard and port drafts. This difference is called _____.	list	heel	trim	flotation	
4	722	B	The SS AMERICAN MARINER will sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the drafts.	FWD 23'-03", AFT 27'-00"	FWD 23'-07", AFT 26'-07"	FWD 24'-01", AFT 26'-02"	FWD 24'-06", AFT 25'-10"	ST-0016
4	723	A	The color of the signal flare sent up by a submarine to indicate an emergency condition within the submarine is _____.	red	white	yellow	green	
4	724	C	Messages concerning weather conditions transmitted by radiotelephone are preceded by _____.	MAYDAY	PAN-PAN	SECURITE	SOS	
4	725	A	You notice oil on the water near your vessel while taking on fuel. You should FIRST _____.	stop fueling	notify the senior deck officer	notify the terminal superintendent	determine whether your vessel is the source	
4	726	C	On an oceangoing vessel, for each person a lifeboat (without desalting kits) is certified to carry, the boat must be supplied with _____.	2 pounds of condensed milk	a signaling whistle	3 liters of water	a life preserver	
4	727	D	Under the "Vessel Bridge-to-Bridge Radiotelephone Act", failure of a vessel's radiotelephone equipment _____.	constitutes a violation of the Act	obligates the operator to moor or anchor the vessel immediately	requires immediate, emergency repairs	does not, in itself, constitute a violation of the Act	

4	728	B	When water is used to fight a fire on board a ship, the effect of the weight of the water must be taken into account. How much sea water will increase the weight displacement by one ton?	64 cubic feet	35 cubic feet	100 gallons	500 liters	
4	729	B	At what rate would you render mouth to mouth or mouth to nose artificial respiration to an adult?	4 to 6 times per minute	12 to 15 times per minute	20 to 30 times per minute	At least 30 times per minute	
4	730	C	The percentage of the total surface area or volume of a flooded compartment that can be occupied by water caused by damage is known as _____.	one compartment standard	center of flotation	permeability	form gain	
4	731	A	If Annex V to MARPOL 73/78 applies to your vessel, you will not be able to discharge _____ anywhere at sea.	plastic	metal	glass	paper	
4	732	A	Which statement(s) is(are) TRUE concerning the use of dry chemical extinguishers?	You should direct the spray at the base of the fire.	You should direct the spray directly into the fire.	You should direct the spray at a vertical bulkhead and allow it to flow over the fire.	All of the above	
4	733	B	Lifeboat hatchets should be _____.	kept in a locker	secured at each end of the boat with a lanyard	kept next to the boat coxswain	kept in the emergency locker on the ship and brought to the lifeboat when needed	
4	734	B	On small passenger vessels painters fitted to life floats shall be at least _____.	20.0 meters (65.5 feet) in length	30.5 meters (100 feet) in length	10 fathoms (60 feet) in length	90 feet (27.5 meters) in length	
4	735	B	You are fueling your vessel when you notice oil in the water around your vessel. You should immediately stop fueling and _____.	begin cleanup operations	notify the U. S. Coast Guard	leave the area	notify the Corps of Engineers	
4	736	D	How many liters of water per person must be carried in lifeboats on a tankship sailing a coastwise route?	None	One	Two	Three	
4	737	D	When using the Code of Federal Regulations (CFR's) for Tank Vessels, you see T/O and B/C. What do the T and B tell you?	The waters in which vessels may operate	Special construction limitations	Grades of cargo which may be carried	Type of vessel to which the regulation applies	
4	738	B	There is a fire aft aboard your vessel. To help fight the fire, you should _____.	put the wind off either beam	head the bow into the wind and decrease speed	put the stern into the wind and increase speed	put the stern into the wind and decrease speed	
4	739	C	A 7,000 ton displacement tankship carries two slack tanks of alcohol with a S.G. of 0.8. Each tank is 50 ft. long and 30 ft. wide. What is the reduction in GM due to free surface with the vessel floating in sea water, S.G. is 1.026?	.36 ft	.46 ft	.72 ft	.82 ft	
4	740	C	What is NOT a motion of the vessel?	Pitch	Roll	Trim	Yaw	
4	741	C	You are ordering ship's stores. Which statement is TRUE?	Stores such as line, rags, mattresses, linens, etc. must be treated to be fire retardant.	Stores certified for use on uninspected vessels may be identified by the certification number used by Underwriter's Laboratories.	A portable container of a flammable liquid used as fuel for portable auxiliary equipment must be stowed in a paint locker or at a designated open location.	Acetylene may be in a ship's storeroom in quantities not exceeding 6000 cubic feet.	

4	742	B	An advantage of an ABC dry chemical over a carbon dioxide extinguisher is _____.	lack of toxicity	the multipurpose extinguishing ability	burn-back protection	cooling ability	
4	743	B	In order for the automatic lifeboat drain to operate properly _____.	the cap should be removed to drain the boat when it is waterborne	the cage must be free of rubbish or the ball may not seat properly	there is an automatic ball check located in a siphon tube	the small lever to release the rubber ball float must be turned counterclockwise	
4	744	B	You are using VHF channel 16 (156.8 MHz) or 2182 kHz. You need help but are not in danger. You should use the urgent signal _____.	"ASSISTANCE NEEDED"	"PAN-PAN"	"MAYDAY"	"SECURITE"	
4	745	D	You detect oil around your tank vessel while discharging. The FIRST thing to do is _____.	try to find out where the oil is coming from	call the Master	have the pumpman check the discharge piping	shut down operations	
4	746	A	The quantity of fuel required to be carried in a motor lifeboat is _____.	the quantity needed for 24 hours continuous operation	the quantity needed for 48 hours continuous operation	55 gallons	90 gallons	
4	747	C	Which statement about the use of portable electric lights in petroleum product tanks is TRUE?	The fixture must be explosion-proof and the line must have a ground wire.	They can be used only when the compartment is gas free.	They must be explosion-proof, self-contained, battery-fed lamps.	No portable electric equipment of any type is allowed.	
4	748	B	A fire has broken out on the stern of your vessel. You should maneuver your vessel so the wind _____.	blows the fire back toward the vessel	comes over the bow	comes over the stern	comes over either beam	
4	749	A	Small passenger vessels on rivers routes in cold water must be provided with life floats of an aggregate capacity to accommodate _____.	at least 50% of all persons on board or meet certain construction standards	100% of the crew and 50% of all passengers allowed to be carried	not less than 50% of all passengers on board at the time	All persons on board (100% of all passengers and crew)	
4	750	B	The center of flotation of a vessel is _____.	the center of volume of the immersed portion of the vessel	the center of gravity of the water plane	that point at which all the vertical downward forces of weight are considered to be concentrated	that point at which all the vertical upward forces of buoyancy are considered to be concentrated	
4	752	B	Which statement describes the primary process by which fires are extinguished by dry chemical?	The stream of dry chemical powder cools the fire.	The dry chemical powder attacks the fuel and oxygen chain reaction.	The powder forms a solid coating over the surface.	The dry chemical smothers the fire.	
4	753	D	How should signal flares be used after you have abandoned ship and are adrift in a liferaft?	Immediately use all the signals at once.	Use all the signals during the first night.	Employ a signal every hour after abandoning ship until they are gone.	Use them only when you are aware of a ship or plane in the area.	
4	754	D	"PAN-PAN" repeated three times over the radiotelephone indicates which type of message will follow?	Distress	Safety	All clear	Urgency	
4	755	A	While your vessel is taking on fuel you notice oil on the water around the vessel. What should you do FIRST?	Stop the fueling.	Notify the Coast Guard.	Notify the terminal superintendent.	Determine the source of the oil.	
4	756	C	A motor lifeboat shall carry sufficient fuel to operate continuously for a period of _____.	12 hours	18 hours	24 hours	36 hours	
4	757	B	Which tank vessel must carry a signaling lamp?	A 1,000 GT tanker on a coastwise voyage	A 200 GT tanker on an international voyage	A 300 GT tanker on an intercoastal voyage	All of the above	

4	758	B	A fire is discovered in the forepeak of a vessel at sea. The wind is from ahead at 35 knots. You should _____.	remain on course and hold speed	change course and put the stern to the wind	change course to put the wind on either beam and increase speed	remain on course but slack the speed	
4	759	B	Determine the free surface correction for a fuel oil tank 30 ft. long by 40 ft. wide by 15 ft. deep, with a free surface constant of 3794. The vessel is displacing 7,000 tons in saltwater.	0.35 foot	0.54 foot	0.65 foot	1.38 feet	
4	760	A	With certain exceptions a suitable rescue boat is required _____.	on most "T-Boats" more than 65 feet in length	on most "T-Boats" regardless of length	only on "K-Boats"	None of the above	
4	761	A	Which when removed, will result in the extinguishment of a fire?	Oxygen	Carbon dioxide	Sodium	Nitrogen	
4	762	A	The most effective extinguishing action of dry chemical is _____.	breaking the chain reaction	the CO2 that is formed by heat	smothering	shielding of radiant heat	
4	763	A	Which item of lifeboat equipment would be most suitable for night signaling to a ship on the horizon?	A red parachute flare	A red hand-held flare	A flashlight	A lantern	
4	764	B	Which word is an international distress signal when transmitted by radiotelephone?	Securite	Mayday	Breaker	Pan	
4	765	B	Hoses used for cargo transfer operations must be tested and inspected at specified intervals by _____.	a representative of the Captain of the Port	the operator of the vessel or facility	a representative of the National Cargo Bureau	a representative of the American Bureau of Shipping	
4	767	A	On every vessel, distress signals must be stowed _____.	on or near the navigating bridge	on the flying bridge not closer than 15 feet to any bulkhead	above the freeboard deck away from heat	in an enclosed space below the freeboard deck away from heat	
4	768	D	Which statement is TRUE concerning carbon dioxide?	It is heavier than air.	It is non-conductive.	It is used on class B and C fires.	All of the above are true.	
4	769	A	A life float on a fishing vessel must be equipped with _____.	a painter	red smoke flares	a jackknife	a signal mirror	
4	770	D	A vessel is described as a two compartment vessel when it _____.	has no more than two compartments	has two compartments in addition to the engine room	will sink if any two compartments are flooded	will float if any two adjacent compartments are flooded	
4	771	B	You are approaching another vessel and see that she has the signal flag "F" hoisted. What should you do?	Continue on your present course since the vessel is signaling for a pilot.	Attempt to call the vessel on VHF radiotelephone because she is disabled.	Stop your vessel instantly.	Change course to keep clear of the vessel because she is maneuvering with difficulty.	
4	772	C	What do the small passenger vessel regulations require when installing a hydraulic accumulator or other unfired pressure vessel?	It be operated at one and one half times normal operating pressure for ten minutes.	Safety and/or relief valves settings be checked at two and one half times normal operating pressures.	It be installed to the satisfaction of the cognizant OCMI	All of the above	
4	773	D	When using the lifeboat compass, you must be careful to _____.	set it on the centerline of the boat	apply the correction for compass error	keep metal objects away from it	All of the above	
4	774	D	If you send a flag hoist of MAJ 8, what information are you conveying?	The least depth of water in the channel is 8 meters.	Derelict dangerous to navigation to the north.	Navigation is closed. You should navigate with caution.	I have a male age 8 years.	

4	775	D	During the annual inspection by the owner, each nonmetallic oil transfer hose must not burst, bulge, leak, or abnormally distort under static liquid pressure of at least _____.	100 pounds per square inch	the relief valve setting pressure	the shoreside pump discharge pressure	1½ times the maximum allowable working pressure	
4	776	B	When dry chemical extinguishers are used to put out class B fires, there is a danger of reflash because dry chemical_____.	is not an effective agent on Class B fires	does little or no cooling	dissipates quickly	is rapidly absorbed by the liquid	
4	777	D	On small passenger vessels a gasoline engine must be fitted with _____.	A means of backfire flame control	A lubricating oil pressure gauge and a tachometer	Jacket water discharge temperature gauges	All of the above	
4	778	D	An aluminum powder fire is classified as class _____.	A	B	C	D	
4	779	C	A bulk freighter 680 ft. in length, 60 ft. beam, with a waterplane coefficient of .84, is floating in salt water at a draft of 21'. How many long tons would it take to increase the mean draft by 1"?	64.3 tons	69.6 tons	81.6 tons	116 tons	
4	780	A	The change in trim of a vessel may be found by _____.	dividing the trim moments by MT1	subtracting the LCF from the LCB	looking at the Hydrostatic Properties Table for the draft of the vessel	dividing longitudinal moments by the displacement	
4	781	C	How is the external flotation bladder of an immersion suit inflated?	It is inflated by a small CO2 bottle that is automatically tripped when the front zipper is at the top of the zipper track.	It is inflated by a small CO2 bottle that is manually tripped.	It is inflated by blowing through an inflation tube.	It inflates by sea water bleeding into the flotation bladder and reacting with a chemical therein.	
4	782	A	On small passenger vessels what device must you install under carburetors, other than the downdraft type, to allow ready removal of fuel leakage?	A drip collector	A funnel and a tin can	A sponge	Suitable absorbent material	
4	783	D	A person referring to the stern sheets of a lifeboat is speaking of _____.	the line attached to the tack of the lugsail	the emergency rudder	a canvas awning	the aftermost seating	
4	784	D	While communicating with a shore station concerning an injured female, your message should indicate the subject's age is 32. Which code would your message contain?	MAO 32	MAJ 32	MAL 32	MAK 32	
4	785	A	33 CFR 156 deals with matters concerning _____.	oil and hazardous material transfer operations	vessel construction and design	operation of nautical school ships	lifesaving and firefighting equipment	
4	786	A	Which statement is TRUE concerning distress signals in a lifeboat?	Hand held flares and orange smoke signals are required.	If hand-held rocket-propelled parachute flares are provided, they are the only distress signals required.	Two hand-held smoke signals shall be provided.	A Very pistol with twelve flares is required.	
4	787	A	To determine which grades of cargo a tank vessel is permitted to carry you should _____.	refer to the vessel's Certificate of Inspection	examine the cargo tanks and fittings	ask the terminal supervisor or his representative	check the loading order	
4	788	B	Fires of which class would most likely occur in the engine room of a vessel?	Classes A and B	Classes B and C	Classes C and D	Classes A and D	

4	789	A	An inflatable liferaft equipped with a SOLAS B pack must be stowed _____.	so as to float free	with the vessel's emergency equipment	near the wheelhouse	as far forward as possible	
4	790	D	Which would NOT provide extra buoyancy for a vessel with no sheer?	Lighter draft	Raised fo'c'sle head	Raised poop	Higher bulwark	
4	791	A	During a training exercise a submarine indicating that a torpedo has been fired will send up smoke from a float. The smoke's color will be _____.	black	red	orange	yellow	
4	792	D	What is an advantage of a dry chemical extinguisher as compared to a carbon dioxide extinguisher?	It has a greater duration.	It provides a heat shield for the operator.	It is nontoxic.	It offers lasting, effective protection against burn-back.	
4	793	B	Which of the following represents the maximum percent of oxygen, by volume, required to be achieved by a ship's inert gas system, prior to the commencement of crude oil tank washing?	6%	8%	10%	12%	
4	794	B	An oiler was badly burned and you are communicating with a passenger ship that has a doctor and hospital on board. You want to rendezvous in a certain position so the oiler can be evacuated for medical treatment. Which code should your message contain?	MAF	MAB	MAA	MAE	
4	795	D	The authority to grant an alternate procedure for oil transfer operations rests with the _____.	nearest Coast Guard office	Officer-in-Charge, Marine Inspection	Area Commander	Captain of the Port	
4	796	B	When discharging a portable CO2 fire extinguisher, you should NOT hold the horn of the extinguisher because the horn _____.	becomes extremely hot	becomes extremely cold	could come off in your hands	is placed directly in the flames	
4	797	D	Which statement about the hospital space on a cargo ship is TRUE?	The hospital may be used for disciplinary confinement if it is not being used for treatment.	The hospital space must have both a bathtub and shower.	A hospital is required on all vessels with a crew of 12 or more if it makes overnight voyages.	If a ship has a crew of forty-five who do not have their own room, the hospital must have four berths.	
4	798	C	A fire starts in a switchboard due to a short circuit. This is which class of fire?	A	B	C	D	
4	799	D	Lines or gear NOT in use should be _____.	conspicuously marked	stowed anywhere	left on deck	secured or stowed out of the way	
4	800	D	The "trimming arm" of a vessel is the horizontal distance between the _____.	LCB and LCF	LCF and LCB	forward perpendicular and LCG	LCB and LCG	
4	801	C	No person on board any vessel to which Annex V to MARPOL 73/78 applies may discharge garbage of any type when _____.	less than 12 nautical miles from the United States	less than 12 nautical miles from nearest land	in the navigable waters of the United States	less than 25 nautical miles from nearest land	
4	802	B	A portable dry chemical fire extinguisher discharges by _____.	gravity when the extinguisher is turned upside down	pressure from a small CO2 cartridge on the extinguisher	air pressure from the hand pump attached to the extinguisher	pressure from the reaction when water is mixed with the chemical	
4	803	C	The abandon ship signal on the ship's whistle is _____.	6 short blasts and 1 long blast	more than 6 short blasts	more than 6 short blasts and 1 long blast	1 long blast of at least 10 seconds	
4	804	C	You have an AB who has become violently ill, and you are requesting urgent medical advice. Your message should contain which code?	MAB	MAD	MAA	MAF	

4	805	C	Application for a waiver of any requirements of the regulations for oil transfer operations must be submitted to the _____.	District Commander	Commandant	Captain of the Port	nearest Coast Guard office	
4	806	D	On small passenger vessels electrical equipment in spaces that contain gasoline powered machinery must be _____.	explosion-proof	intrinsically safe	ignition protected for use in a gasoline atmosphere	All of the above	
4	807	C	The space containing carbon dioxide cylinders shall be properly ventilated and designed to prevent an ambient temperature in excess of _____.	75°F	100°F	130°F	165°F	
4	808	A	A fire in a pile of canvas is classified as class _____.	A	B	C	D	
4	809	D	If the patient vomits during mouth-to mouth resuscitation, the rescuer should FIRST _____.	ignore it and continue mouth-to-mouth ventilation	pause for a moment until the patient appears quiet again, then resume ventilation mouth-to-mouth	switch to mouth-to-nose ventilation	turn the patient's body to the side, sweep out the mouth and resume mouth-to-mouth ventilation	
4	810	A	When a vessel's LCG is aft of her LCB, the vessel will _____.	trim by the stern	trim by the head	be on an even keel	be tender	
4	811	B	Your vessel is broken down and rolling in heavy seas. You can reduce the possibility of capsizing by _____.	constantly shifting the rudder	rigging a sea anchor	moving all personnel aft	moving all personnel forward and low	
4	812	A	You are fighting a class "B" fire with a portable dry chemical extinguisher. The discharge should be directed _____.	at the seat of the fire, starting at the near edge	to bank off a bulkhead onto the fire	over the top of the fire	at the main body of the fire	
4	813	C	You hear the general alarm and ship's whistle sound for over 10 seconds. Traditionally, this is the signal for _____.	abandon ship	dismissal from fire and emergency stations	fire and emergency	man overboard	
4	814	D	In the International Code of signals, a group of three letters indicates _____.	urgency or an emergency	the vessel's national identity signal	a group from the general signal code	a group from the medical signal code	
4	815	D	Applications for waivers of any requirements of the regulations for oil transfer operations must be submitted _____.	the day before the operations	5 days before the operations	10 days before the operations	30 days before the operations	
4	816	B	You are crude oil washing on a tanker with an inert gas system. What percentage of oxygen must the inert gas system produce and deliver to the tanks?	0%	5%	8%	11%	
4	817	B	An accommodation ladder or other equally safe and convenient means must be provided for a pilot whenever the distance from the sea level is more than _____.	20 feet	30 feet	40 feet	50 feet	
4	818	C	A fire in a transformer terminal would be classified as class _____.	A	B	C	D	
4	819	A	Providing you are not in a special area, such as the Mediterranean or Red Sea, how many nautical miles from land must you be to throw wooden dunnage into the sea?	25 nm	12 nm	6 nm	3 nm	
4	820	B	The two points that act together to trim a ship are the _____.	LCF and LCB	LCG and LCB	metacenter and LCG	VCG and LCG	
4	821	A	Bleeding from a vein is _____.	dark red and has a steady flow	bright red and slow	bright red and spurting	dark red and spurting	

4	822	A	When electrical equipment is involved in a fire, the stream of dry chemicals should be _____.	aimed at the source of the flames	fogged above the equipment	shot off a flat surface onto the flames	used to shield against electrical shock	
4	823	B	Traditionally, the signal for fire aboard ship is _____.	more than 6 short blasts and 1 long blast on the whistle, and the same signal on the general alarm	continuous sounding of the ship's whistle and the general alarm for at least 10 seconds	1 short blast on the whistle	alternating short and long blasts on the ship's whistle	
4	824	A	You receive a medical message that contains the code MSJ. This means "_____."	Place patient in hot bath	The wound should be stitched	You should pass a stomach tube	The wound should not be stitched	
4	825	B	ABYC equipment standards are published by the _____.	Association of Boat and Yacht Classifiers	American Boat and Yacht Council	American Boat and Yacht Convention 1991	American Boat and Yacht Club	
4	827	D	A small passenger vessel's Official Number must be marked_____.	in block type Arabic numerals not less than 3 inches high	or mounted so that any alteration, removal, or replacement would be obvious	on some clearly visible interior structural hull part	All of the above	
4	828	A	A fire in a pile of dunnage would be classified as class _____.	A	B	C	D	
4	829	C	A fire starting by spontaneous combustion can be expected in which condition?	Paints, varnish, or other liquid flammables are stowed in a dry stores locker.	Inert cargoes such as pig iron are loaded in a wet condition.	Oily rags are stowed in a metal pail.	Clean mattresses are stored in contact with an electric light bulb.	
4	830	C	Your vessel has a midships engine room and the cargo is concentrated in the end holds. The vessel is _____.	sagging with tensile stress on main deck	sagging with compressive stress on main deck	hogging with tensile stress on main deck	hogging with compressive stress on main deck	
4	831	C	The spread of fire is prevented by _____.	heating surfaces adjacent to the fire	leaving combustibles in the endangered area	shutting off the oxygen supply	All of the above	
4	832	A	Which statement is TRUE concerning the use of a dry chemical extinguisher?	You should direct the stream at the base of the fire.	You should direct the stream directly into the fire.	You should direct the stream at a vertical bulkhead and allow it to flow over the fire.	All of the above	
4	833	B	While reading the muster list you see that "3 short blasts on the whistle and 3 short rings on the general alarm bells" is the signal for _____.	abandon ship	dismissal from fire and emergency stations	fire and emergency	man overboard	
4	834	B	After sending a message describing the symptoms of an ill crew member, you receive a message containing the code MRL. This means "_____".	Apply ice-cold compress and renew every 4 hours	Commence artificial respiration immediately	Give enema	Pass catheter into bladder	
4	835	D	No person may serve as the person in charge of both the vessel and the facility during oil transfer operations unless _____.	there is ready access between the two	the vessel and facility are immediately adjacent	the person in charge has a rapid means of transportation between the two	the Captain of the Port authorizes such procedure	
4	836	B	What size bilge pump is required for a lifeboat which has a capacity of 675 cubic feet?	1	2	3	4	
4	837	B	The largest crew a cargo vessel may carry without having a hospital space is _____.	6	11	12	16	
4	838	D	A class C fire would be burning _____.	fuel oil	wood	celluloid	electrical insulation	

4	839	B	A small passenger vessel's Official Number must be marked_____.	in block type Arabic numerals not less than 1-1/2 inch high	or mounted so its alteration, removal, or replacement would be obvious	on some clearly visible exterior structural hull part	All of the above	
4	840	A	If a vessel is sagging, what kind of stress is placed on the sheer strake?	Compression	Tension	Thrust	Racking	
4	841	C	Blood flowing from a cut artery appears _____.	dark red with a steady flow	bright red with a steady flow	bright red and in spurts	dark red and in spurts	
4	842	C	As compared to carbon dioxide, dry chemical has which advantage?	Cleaner	Effective on metal fires	Greater range	More cooling effect	
4	843	B	The signal given to commence lowering the lifeboats is _____.	3 short blasts of the ship's whistle	specified on the muster list (station bill)	3 long blasts of the ship's whistle	1 long blast of the ship's whistle	
4	844	B	If a crew member that was ill has died, which code should your message contain?	MPO	MPR	MPK	MPJ	
4	845	D	Each pressure gage used in an oil transfer operation must be accurate to within _____.	1 percent	3 percent	5 percent	10 percent	
4	846	A	If a lifeboat is stowed 40 feet above the light water draft and 200 feet from the bow, how long must the sea painter be?	80 feet	160 feet	Sufficiently long enough to reach the water when the vessel has an adverse list of 15°	One third the length from the bow to where the lifeboat is stowed	
4	848	B	The class of fire on which a blanketing effect is essential is class _____.	A	B	C	D	
4	849	C	You are testing the external inflation bladder on an immersion suit and find it has a very slow leak. Which action should be taken?	Replace the suit.	Replace the inflation bladder.	Take it out of service and repair in accordance with the manufacturers instructions.	Some leakage should be expected and a topping off tube is provided; no other action is necessary.	
4	850	B	When a vessel is stationary and in a hogging condition, the main deck is under _____.	compression stress	tension stress	shear stress	racking stress	
4	851	D	The preferred agent used in fighting a helicopter crash fire is _____.	CO2	dry chemical	water	foam	
4	852	A	Which statement concerning the application of dry chemical powder is FALSE?	At temperatures of less than 32°F, the extinguisher must be recharged more often.	When possible, the fire should be attacked from windward.	The stream should be directed at the base of the fire.	Directing the stream into burning flammable liquid may cause splashing.	
4	853	B	When whistle signals are used for launching lifeboats, one short blast means _____.	"use the float-free method only"	"lower all boats"	"raise all boats"	"drill is over, secure all boats"	
4	854	C	If an ill crew member is beginning to show signs of improvement, what code should your message contain?	MVP	MPH	MPF	MSO	
4	855	D	The term, "cargo tank length", as used in part 157 of the Pollution Regulations, means the _____.	length of any individual cargo space, from bulkhead to bulkhead	greatest distance between two opposite cargo tank bulkheads	diagonal measurement of a cargo tank	length from the forward bulkhead of the forwardmost cargo tanks to the after bulkhead of the aftermost cargo tanks	

4	856	C	Which statement about immersion suits is TRUE?	Immersion suits should be worn during routine work on deck to provide maximum protection.	After purchasing, the suit should be removed from its storage bag and hung on a hanger where readily accessible.	Immersion suits must have a PFD light attached to the front shoulder area.	Small leaks or tears may be repaired using the repair kit packed with the suit.	
4	857	A	Who must ensure that the emergency lighting and power systems on cargo vessels are operated at least weekly?	Master	Chief Engineer	Deck officer assigned	Engineering officer assigned	
4	858	A	A fire in trash and paper waste is classified as class _____.	A	B	C	D	
4	860	C	A ship's forward draft is 22'-04" and its after draft is 24'-00". The draft amidships is 23'-04". This indicates a concentration of weight _____.	at the bow	in the lower holds	amidships	at the ends	
4	861	A	The SS AMERICAN MARINER will sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the drafts.	FWD 26'-09", AFT 28'-00"	FWD 27'-00", AFT 27'-10"	FWD 27'-03", AFT 27'-07"	FWD 27'-06", AFT 27'-04"	ST-0017
4	862	D	Dry chemical extinguishers extinguish class B fires to the greatest extent by _____.	cooling	smothering	oxygen dilution	breaking the chain reaction	
4	863	B	A tank 36 ft. by 36 ft. by 6 ft. is filled with water to a depth of 5 ft. If a bulkhead is placed in the center of the tank running fore-and-aft along the 36-foot axis, how will the value of the moment of inertia of the free surface be affected?	The moment of inertia would remain unchanged.	The moment of inertia would be 1/4 its original value.	The moment of inertia would be 1/2 the original value.	None of the above	
4	864	C	A crew member suddenly becomes blind in both eyes. Which code should your message contain?	MNJ	MNM	MNO	MNI	
4	865	D	On board a small passenger vessel, fuel tank vents should _____.	be connected at the highest point in the tank	terminate in a U-bend fitted with a single corrosion resistant wire screen of at least 30x30 mesh	be installed with an upward gradient to prevent fuel from being trapped in the line	All of the above	
4	866	C	The number of rowing oars that must be carried in a motor-propelled open lifeboat on a cargo vessel is _____.	determined by the Master	specified by the Coast Guard	specified by the manufacturer	None	
4	867	B	Cargo vessels being navigated, and fitted with emergency lighting and power systems, shall have their emergency systems tested at least once _____.	a month	in each week	in every 6 months	in every 12 months	
4	868	A	Burning wood is which class of fire?	A	B	C	D	
4	869	B	As a last resort, a tourniquet can be used to _____.	hold a victim in a stretcher	stop uncontrolled bleeding	hold a large bandage in place	restrain a delirious victim	
4	870	A	The forward draft of your ship is 27'-11" and the after draft is 29'-03". The draft amidships is 28'-05". Your vessel is _____.	hogged	sagged	listed	trimmed by the head	
4	871	A	The bilge pump on a fishing vessel _____.	must be fixed if the vessel exceeds 12 meters in length	may be used as a fire pump	must be portable if there are more than 4 watertight compartments	must be capable of pumping at least 450 gpm	
4	872	D	The safety discs on carbon dioxide cylinders are set to release at 2,700 psi. Under normal circumstances this pressure will be reached at a temperature of _____.	70°F	100°F	125°F	135°F	

4	873	D	On small passenger vessels which parts of a water-cooled gasoline or diesel engine must be water-jacketed and cooled?	The engine's head	The block	The exhaust manifold	All of the above	
4	874	C	If you were being assisted by an icebreaker and he sent you the single letter "Q", he would be telling you _____.	that he has his engines in reverse	that he is shortening the distance between vessels	to shorten the distance between vessels	that his vessel is healthy	
4	875	B	How many bolts are required in a temporarily connected standard ANSI coupling?	2	4	6	8	
4	876	D	Which person may command a lifeboat in ocean service?	Licensed deck officer	Able seaman	Certificated person	All of the above	
4	877	D	A marine chemist issues gas free certificates and is certified by the _____.	Mine Safety Appliance Association	American Chemical Society	Marine Chemists Association	National Fire Protection Association	
4	878	A	A fire in a pile of linen is a class _____.	A	B	C	D	
4	879	A	To operate a portable CO2 extinguisher continuously in the discharge mode _____.	slip the "D yoke" ring in the lower handle over the upper handle	reinsert the locking pin	open the discharge valve	invert the CO2 extinguisher	
4	880	C	A ship's forward draft is 22'-04" and its after draft is 23'-00". The draft amidships is 23'-04". This indicates a concentration of weight _____.	at the bow	in the lower holds	amidships	at the ends	
4	881	B	You should FIRST treat a simple fracture by _____.	attempting to set the fracture	preventing further movement of the bone	applying a tourniquet	alternately applying hot and cold compresses	
4	882	B	Fire in an engine compartment is best extinguished with carbon dioxide gas (CO2) and by _____.	closing the compartment except for the ventilators	completely closing the compartment	leaving the compartment open to the air	increasing the air flow to the compartment by blowers	
4	883	D	On a vessel of 15,000 tons displacement, compute the reduction in metacentric height due to free surface in a hold having free water in the tank tops. The hold is 50 feet long and 60 feet wide. The reduction in metacentric height is _____.	1.54 feet	1.59 feet	1.63 feet	1.71 feet	
4	884	C	The single letter G, sent by an icebreaker to an assisted vessel, means _____.	"I require a pilot"	"Longitude follows"	"I am going ahead; follow me"	"Do not follow me"	
4	885	C	Which type of marine sanitation device (MSD) is used solely for the storage of sewage and flush water at ambient air pressure and temperature?	Type I	Type II	Type III	Type IV	
4	886	A	What is the minimum number of deck officers, able seaman or certificated persons required for a lifeboat on a vessel in ocean service?	Two	Three	Four	Five	
4	887	A	Carbon dioxide as a fire fighting agent has which advantage over other agents?	It causes minimal damage.	It is safer for personnel.	It is cheaper.	It is most effective on a per unit basis.	
4	888	B	An oil fire is classified as class _____.	A	B	C	D	
4	889	D	Small quantities of flammable liquids needed at a work site should be _____.	used only under the supervision and direction of a ship's officer	tightly capped and stowed with other tools near the job site when securing at the end of the day	used only when a pressurized fire hose is laid out ready for immediate use	in a metal container with a tight cap	
4	890	C	All of the following can be determined by use of a stabilogauge EXCEPT _____.	metacentric height	mean draft	moment to trim one inch	deadweight	

4	891	A	On small passenger vessels, cooling water for the exhaust lines from an internal combustion engine must be _____.	obtained from the engine's cooling water system or from a separate engine-driven pump	chemically treated to prevent corrosion	flushed and changed periodically	obtained from a fresh water storage tank or an expansion tank	
4	892	C	While you are working in a space, the fixed CO2 system is accidentally activated. You should _____.	secure the applicators to preserve the charge in the cylinders	continue with your work as there is nothing you can do to stop the flow of CO2	retreat to fresh air and ventilate the compartment before returning	make sure all doors and vents are secured	
4	893	D	On a vessel of 12,000 tons displacement, a tank 60 feet long, 50 feet wide, and 20 feet deep is half filled with fresh water (SG 1.000) while the vessel is floating in saltwater (SG 1.026) What is the reduction in metacentric height due to free surface?	0.97 ft.	1.01 ft.	1.35 ft.	1.44 ft.	
4	894	D	Signals between an icebreaker and an assisted vessel may NOT be given by _____.	whistle	flag hoist	radiotelephone	radiotelegraph	
4	895	B	Air-cooled gasoline auxiliary engines are allowed on vessels not more than 65 feet in length, carrying not more than 12 passengers if _____.	it is not practicable to supply water to the engine	they have a self-contained fuel system and are installed on an open deck	they are rated at not more than 4.5 horsepower	All of the above	
4	897	B	Which statement is TRUE concerning carbon dioxide?	It is lighter than air.	It is an inert gas.	It is used mostly on class A fires.	All of the above	
4	898	B	A galley grease fire would be classified as which class of fire?	A	B	C	D	
4	899	B	EXCEPT when suffering from a head or chest injury a patient in shock should be placed in which position?	Head up and feet down	Head down and feet up	Flat on back with head and feet elevated	Arms above the head	
4	900	B	All of the following can be determined by use of a stabilogauge EXCEPT _____.	mean draft	trim	displacement	deadweight	
4	901	C	A squeeze-grip type carbon dioxide portable fire extinguisher has been partially discharged. It should be _____.	replaced in its proper location if weight loss is no more than 15%	replaced in its proper location if weight loss is no more than 25%	labeled empty and recharged as soon as possible	labeled empty and replaced in its proper location regardless of weight	
4	902	C	Your vessel is equipped with a fixed CO2 system and a fire main system. In the event of an electrical fire in the engine room what is the correct procedure for fighting the fire?	Use the CO2 system and evacuate the engine room.	Use the fire main system and evacuate the engine room.	Evacuate the engine room and use the CO2 system.	Evacuate the engine room and use the fire main system.	
4	903	A	On a vessel displacing 8,000 tons, what is the reduction in metacentric height due to free surface when a tank 45 feet long and 45 feet wide is partly filled with salt water?	1.22 feet	1.16 feet	1.13 feet	1.10 feet	
4	904	D	If you are on the beach and are signaling to a small boat in distress that your present location is dangerous and they should land to the left, you would _____.	fire a green star to the left	send the letter K by light and point to the left	place an orange signal to your left as you signal with a white light	send the code signal S followed by L	
4	905	C	The color of the signal flare sent up by a submarine coming to periscope depth is _____.	white	green	yellow	red	

4	906	C	Inflatable liferafts shall be serviced at an approved servicing facility every 12 months or not later than the next vessel inspection for certification. However, the total elapsed time between servicing cannot exceed _____.	12 months	15 months	17 months	18 months	
4	907	A	An advantage of a dry chemical over a carbon dioxide fire extinguisher is its _____.	greater range	effectiveness on all types of fires	cleanliness	All of the above	
4	908	D	If ignited, which material would be a class B fire?	Magnesium	Paper	Wood	Diesel Oil	
4	909	C	Which part of the inert gas system is designed to relieve sudden large overpressures that exceed the capacity of the mechanical P/V valves?	Pressure control valve	Deck water seal	Liquid filled P/V breaker	Isolation valve	
4	910	C	When using a stabilogauge, unless the density correction is applied, the center of gravity of a loaded compartment is assumed to be located _____.	on the deck of the compartment	at one-third the height of the compartment	at the geometric center of the compartment	at one-half the height of the compartment	
4	911	C	You are on a supply run to an offshore drilling rig. On board is the cargo listed. What is the height above the main deck of the center of gravity of the cargo?	3.75 feet	3.02 feet	2.22 feet	0.83 foot	ST-0018
4	912	A	A "fifteen-pound" CO2 extinguisher is so called because _____.	there are fifteen pounds of CO2 in the container	the container, when full, weighs fifteen pounds	the pressure at the discharge nozzle is l5 psi	the empty container weighs fifteen pounds	
4	913	A	On a vessel of 8,000 tons displacement, compute the reduction in metacentric height due to free surface in a hold having free water in the tank tops. The hold is 40 feet long and 20 feet wide. The reduction in metacentric height is _____.	0.1 ft	0.3 ft	0.5 ft	0.9 ft	
4	914	B	What is the lifesaving signal for "You are seen - Assistance will be given as soon as possible"?	Red star rocket	Orange smoke signal	Green star rocket	Vertical motion of a flag	
4	915	D	Which is/are required for engine exhaust pipe installations on small passenger vessels?	Protection where people or equipment can contact the pipe.	Piping must be arranged so that water backflow cannot reach the engine exhaust ports	Dry exhaust pipe ending at the transom should be located as far outboard as possible	All of the above	
4	917	B	Foam-type portable fire extinguishers are most useful in combating fires involving _____.	solid materials such as wood or bales of fiber	flammable liquids	electrical equipment	metallic solids	
4	918	C	Fires which occur in energized electrical equipment, such as switchboard insulation, are class _____.	A	B	C	D	
4	919	C	After an accident the victim may go into shock and die. What should be done to help prevent shock?	Slightly elevate the head and feet.	Keep the person awake.	Keep the person lying down and at a comfortable temperature.	Give the person a stimulant to increase blood flow.	
4	920	A	If a vessel lists to port, the center of buoyancy will _____.	move to port	move to starboard	move directly down	stay in the same position	
4	921	D	You can determine that a CO2 fire extinguisher is fully charged by _____.	looking at the gauge	checking the nameplate data	weighing by hand	weighing on a properly calibrated scale	
4	922	C	An upright vessel has negative GM. GM becomes positive at the angle of loll because the _____.	free surface effects are reduced due to pocketing	KG is reduced as the vessel seeks the angle of loll	effective beam is increased causing BM to increase	underwater volume of the hull is increased	

4	923	C	You are at sea on a vessel whose beam is 60 feet and full period of roll is 20 seconds. What is the estimated metacentric height of the vessel?	1.3 ft	1.5 ft	1.7 ft	1.9 ft	
4	924	A	What is the lifesaving signal for "You are seen - Assistance will be given as soon as possible"?	3 white star signals	Horizontal motion with a white flag	Vertical motion of a white light	Code letter "K" by blinker light	
4	925	D	The center of flotation of a vessel is the geometric center of the _____.	underwater volume	above water volume	amidships section	waterplane area	
4	926	B	Inflatable liferafts must be overhauled and inspected at a U.S. Coast Guard approved service facility every _____.	six months	twelve months	eighteen months	twenty-four months	
4	927	A	The extinguishing agent most effective for combating wood fires is _____.	water	carbon dioxide	foam	dry chemical	
4	928	C	A fire in the radio transmitter would be of what class?	A	B	C	D	
4	929	A	According to Annex V to MARPOL 73/78, garbage containing plastic is permitted to be disposed of by _____.	incinerating offshore	discharging when at least 12 nautical miles from nearest land	grinding to less than 1" and discharging at least 12 nautical miles from nearest land	grinding to less than 1" and discharging at least 25 nautical miles from nearest land	
4	930	C	Semi-portable extinguishers used on inspected vessels are sizes _____.	II, III, and IV	I, II, and III	III, IV, and V	IV and V	
4	931	D	The major cause of shock in burn victims is the _____.	high level of pain	emotional stress	increase in body temperature and pulse rate	massive loss of fluid through the burned area	
4	932	D	Portable CO2 fire extinguishers should NOT be used to inert a space containing flammable liquids due to the danger of _____.	the CO2 being inhaled by personnel	reflash of burning liquids	vapor condensation on the extinguisher	the discharge causing a static spark	
4	933	C	You are at sea on a vessel whose beam is 40 feet and the full rolling period is 20 seconds. What is the estimated metacentric height of the vessel?	0.3 ft.	0.5 ft.	0.8 ft.	1.1 ft.	
4	934	A	The signal used with shore lifesaving equipment to indicate, "Affirmative" is _____.	vertical motion of the arms	code signal "C" sent by light or sound signaling apparatus	firing of a red star signal	None of the above	
4	935	C	If an airplane circles a vessel 3 times, crosses the vessel's course close ahead while rocking the wings, and heads off in a certain direction, what does this indicate?	The plane is in distress and will have to ditch.	The plane is going to drop a package and wishes the vessel to recover it.	Someone is in distress in that direction and the vessel should follow and assist.	There is danger ahead and the best course is indicated by the direction of the aircraft.	
4	936	C	If your vessel is equipped with inflatable liferafts, how should they be maintained?	Have your crew check them annually.	They do not need any maintenance.	Have them sent ashore to an approved maintenance facility annually.	Have them serviced by the shipyard annually.	
4	937	B	On a class "B" fire, which portable fire extinguisher would be the LEAST desirable?	Carbon dioxide	Water (stored pressure)	Dry chemical	Foam	
4	938	D	A magnesium fire is classified as class _____.	A	B	C	D	
4	939	D	CO2 cylinders forming part of a fixed fire extinguishing system must be pressure tested at least every _____.	year	2 years	6 years	12 years	

4	940	C	When a vessel is inclined by an external force, the _____.	shape of the vessel's underwater hull remains the same	vessel's center of gravity shifts to the center of the vessel's underwater hull	vessel's center of buoyancy shifts to the center of the vessel's underwater hull	vessel's mean draft increases	
4	941	B	You are on a supply run to an offshore drilling rig. On board is the cargo listed. What is the height above the main deck of the center of gravity of the cargo?	0.96 foot	1.45 feet	1.96 feet	2.96 feet	ST-0019
4	942	A	A fifteen-pound CO2 extinguisher _____.	contains 15 pounds of CO2	weighs 15 pounds when full of CO2	has 15 pounds of pressure at the nozzle	weighs 15 pounds when empty	
4	943	B	You are at sea on a vessel that has a beam of 60 feet, and you calculate the period of roll to be 25 seconds. What is the vessel's metacentric height?	0.8 ft	1.1 ft	1.4 ft	1.6 ft	
4	944	D	The lifesaving signal indicating "You are seen - Assistance will be given as soon as possible" is the _____.	vertical motion of white flags	vertical motion of a white light or flare	firing of a green star signal	None of the above	
4	945	C	The color of rockets, shells, or rocket parachute flares used to indicate that the vessel is in distress and requires immediate assistance is _____.	white	green	red	yellow	
4	946	A	What material is allowed in construction of the hull of a vessel with an integral diesel fuel tank ?	Steel or aluminum	Sandwich style fiberglass with a natural rubber core	Copper-nickel or copper silicon alloys	Any or all of the above	
4	947	B	When fighting an oil or gasoline fire in the bilge, which of the following should NOT be used?	Foam	Solid stream water nozzle	All-purpose nozzle	Carbon dioxide	
4	948	D	Fires in combustible metals, such as sodium or magnesium, are classified as class _____.	A	B	C	D	
4	950	A	Your vessel has taken a slight list from off-center loading of material on deck. The _____.	list should be easily removed	mean draft is affected	vessel may flop	vessel is trimmed	
4	951	D	If a crewman suffers a second-degree burn on the arm, you should _____.	drain any blisters	apply antiseptic ointment	scrub the arm thoroughly to prevent infection	immerse the arm in cold water	
4	952	C	Which is the proper method of determining whether a portable CO2 fire extinguisher needs recharging?	Check the tag to see when the extinguisher was last charged.	Release a small amount of CO2; if the CO2 discharges, the extinguisher is acceptable.	Weigh the extinguisher and compare the weight against that stamped on the valve.	Recharge the extinguisher at least once each year.	
4	953	B	You are at sea on a vessel that has a beam of 50 feet, and you calculate the period of roll to be 22 seconds. What is the vessel's metacentric height?	0.8 ft	1.0 ft	1.2 ft	1.4 ft	
4	954	C	Which is the lifesaving signal for, "This is the best place to land"?	Red star rocket	Orange smoke signal	Green star rocket	Horizontal motion of a flag	
4	955	C	If another station sent you the signal "KG", he would be _____.	telling you to stay clear	telling you he has flooded a hold	asking you if you needed a tug	telling you he found an aircraft wreckage	
4	957	D	An engine compartment gasoline fire requires which type of extinguisher?	Carbon dioxide	Dry chemical	Foam	All of the above	
4	958	D	Which substance might be subject to spontaneous combustion?	Coal	Scrap rubber	Leather	All of the above	
4	959	C	You are on a supply run to an offshore drilling rig. On board is the cargo listed. What is the height above the main deck of the center of gravity of the cargo?	2.32 feet	2.21 feet	1.97 feet	1.76 feet	ST-0020

4	960	D	Your vessel has just finished bunkering and has a small list due to improper distribution of the fuel oil. This list will cause _____.	a decrease in reserve buoyancy	a decrease in the maximum draft	the vessel to flop to port and starboard	None of the above	
4	961	B	Safety is increased if _____.	extra line and wire are laid out on deck for emergency use	all lashings are made up, and the decks are clean and clear	power tools are kept plugged in for immediate use	spare parts are kept on deck for ready access	
4	962	B	A carbon dioxide fire extinguisher should be recharged _____.	at least annually	whenever it is below its required weight	only if the extinguisher has been used	before every safety inspection	
4	963	D	Your vessel has a displacement of 19,800 tons. It is 464 feet long, and has a beam of 64 feet. You have timed its full rolling period to be 21.0 seconds. What is your vessel's approximate GM?	1.1 ft	1.3 ft	1.6 ft	1.8 ft	
4	964	B	Which signal is used by a rescue unit to indicate, "Avast hauling"?	Firing of a green star signal	Firing of a red star signal	An orange smoke signal	Three white star rockets fired at one-minute intervals	
4	965	B	What statement about immersion suits is TRUE?	Immersion suits should be worn while performing routine work on deck.	No stowage container for immersion suits may be capable of being locked.	During the annual maintenance, the front zipper should be lubricated using light machine oil or mineral oil.	Any tear or leak will render the suit unserviceable and it must be replaced.	
4	967	A	Gasoline fuel tanks on small passenger vessels must be installed _____.	independent of the hull	on a level higher than the engine	in a cool and insulated place	so the fuel line to the engine leads from a shut-off valve at the bottom of the tank	
4	968	D	Which condition is necessary for a substance to burn?	The temperature of the substance must be equal to or above its fire point.	The air must contain oxygen in sufficient quantity.	The mixture of vapors with air must be within the "explosive range."	All of the above	
4	969	A	That center around which a vessel trims is called the _____.	tipping center	center of buoyancy	center of gravity	turning center	
4	970	C	During cargo operations, your vessel develops a list due to the center of gravity rising above the transverse metacenter. To correct the list, you should _____.	shift weight to the high side	shift weight to the centerline	add weight in the lower holds or double bottoms	remove weight from the lower holds or double bottoms	
4	971	B	When should you first have any food or water after boarding a lifeboat or liferaft?	After 12 hours	After 24 hours	Within 48 hours	Some food and water should be consumed immediately and then not until 48 hours later	
4	972	D	Which statement concerning carbon dioxide is FALSE?	It displaces the oxygen in the air.	It cannot be seen.	It cannot be smelled.	It is safe to use near personnel in a confined space.	
4	973	D	You are on a vessel that has a metacentric height of 1.0 foot and a beam of 40 feet. What can you expect the rolling period of the vessel to be?	15.2 seconds	15.9 seconds	17.0 seconds	17.6 seconds	
4	974	B	On board small passenger vessels the minimum fill pipe size for a gasoline or diesel tank is _____.	2 1/2 inches nominal pipe size	1 1/2 inches nominal pipe size	Not specified by the Regulations	Large enough so it does not cause backpressure and fuel spillage	

4	975	B	The waiting signal in code for all forms of signaling is _____.	AR	AS	C	RQ	
4	976	D	Inflatable liferafts carried on passenger vessels must be annually _____.	overhauled by the ship's crew	sent to the Coast Guard for servicing	sent to the steamship company shore repair facility	sent to a Coast Guard approved service facility	
4	977	A	Which type of fire is the foam (stored-pressure type) fire extinguisher effective on?	Classes A & B	Classes A & C	Classes B & C	All of the above	
4	978	B	You have carbon tetrachloride as part of the cargo. If a fire breaks out in the general area, what is the major danger from the carbon tetrachloride?	It will explode if exposed to a flame.	Phosgene gas may be formed if it comes in contact with hot metal.	It will burn rapidly once ignited.	You cannot use water to fight the fire because it will react with the carbon tetrachloride.	
4	979	B	When should you first have any food or water after boarding a lifeboat or liferaft?	After 12 hours	After 24 hours	Within 48 hours	Some food and water should be consumed immediately and then not until 48 hours later.	
4	980	A	Assuming an even transverse distribution of weight in a vessel, which condition could cause a list?	Empty double-bottoms and lower holds, and a heavy deck cargo	Flooding the forepeak to correct the vessel's trim	Having KG smaller than KM	Having a small positive righting arm	
4	981	B	Oily rags stored in a pile that is open to the atmosphere are a hazard because they may _____.	deteriorate and give off noxious gasses	spontaneously heat and catch fire	attract lice and other vermin and serve as a breeding ground	None of the above	
4	982	B	In continuous operation, the effective range of the 15 pound CO2 extinguisher is limited to _____.	2 to 4 feet	3 to 8 feet	9 to 12 feet	10 to 15 feet	
4	983	C	Your vessel has a metacentric height of 1.12 feet and a beam of 60 feet. Your average rolling period will be _____.	20 seconds	23 seconds	25 seconds	35 seconds	
4	984	D	The lifesaving signal indicated by a horizontal motion of a white light or white flare means _____.	"Landing here highly dangerous"	"Negative"	"Avast hauling"	All of the above	
4	985	D	What should be used to send the group "Bearing 074° True"?	A074T	B074	B074T	A074	
4	986	B	According to Coast Guard Regulations (CFR 33), the shipboard Oil Pollution Emergency Plan must include _____.	all information ordinarily provided in the Oil Record Book	an explanation and purpose of the plan	a one-line schematic of the plan to be implemented	the operating instructions for any and all oily-water separators installed aboard the vessel	
4	987	B	Which extinguishing agent will cool down a heated bulkhead in the least amount of time?	Water stream	Water fog or spray	Steam	Dry chemical	
4	988	A	Which portable fire extinguisher should be used on a class C fire on board a vessel?	Carbon dioxide	Water (stored pressure)	Foam	Carbon tetrachloride	
4	989	C	First-, second-, and third-degree burns are classified according to the _____.	area of the body burned	source of heat causing the burn	layers of skin affected	size of the burned area	
4	990	A	If your vessel will list with equal readiness to either side, the list is most likely caused by _____.	negative GM	off-center weight	pocketing of free surface	excessive freeboard	
4	991	C	Fire extinguishing agents used on Class C fires must be _____.	able to absorb heat	water based	nonconducting	nontoxic	

4	992	D	On small passenger vessels gasoline tanks must be _____.	electrically bonded to a common ground	fitted with vertical baffle plates if the tank is longer than 30 inches in any horizontal dimension	built without flanged-up top edges	All of the above	
4	993	D	If your vessel has a GM of one foot and a breadth of 50 feet, what will be your full rolling period?	11 seconds	15 seconds	20 seconds	22 seconds	
4	994	B	The signal to guide vessels in distress, which indicates, "This is the best place to land" is the _____.	horizontal motion of a white flag	letter K in Morse code given by light	code flag S as a hoist	firing of a white star signal	
4	995	A	If you receive a message "A243" by any method of signaling, it would be referring to _____.	bearing	altitude	diving	speed	
4	996	A	What is the penalty for failure to enforce, or comply with, the vessel bridge-to-bridge radiotelephone regulations?	Civil penalty of no more than $500	Civil penalty of no more than $5,000	$5,000 fine and imprisonment for not more than one year, or both	$1,000 fine or imprisonment for not more than two years	
4	997	A	Which fire-fighting agent is most effective at removing heat?	Water spray	Foam	Carbon dioxide	Dry chemical	
4	998	B	Fire extinguishers of sizes III, IV, and V are designated as _____.	portable	semi-portable	fixed	disposable	
4	999	A	A documented vessel operating over 50 miles offshore must carry an inflatable liferaft with a _____.	SOLAS A pack	SOLAS B pack	coastal pack	small vessel pack	
4	1000	D	A vessel continually lists to one side and has a normal rolling period. Which statement is TRUE?	The vessel has negative GM.	The center of gravity is on the centerline.	The list can be corrected by reducing KM.	The vessel has asymmetrical weight distribution.	
4	1001	B	Which statement about entering into a tank which has been sealed for a long time is TRUE?	The tank should be tested only once to ensure the oxygen content is at least 14% before entry.	The tank must be tested at frequent intervals to ensure that hazardous gasses have not regenerated.	The tank need not be tested for oxygen content if it is ventilated for more than 24 hours.	If the oxygen content tests at less than 12% you should wear an approved gas mask.	
4	1002	D	How do you operate a portable CO2 fire extinguisher?	Point the horn down.	Turn cylinder upside-down.	Break the rupture disc.	Pull pin, squeeze grip.	
4	1003	C	You are on a vessel that has a metacentric height of 4 feet, and a beam of 50 feet. What can you expect the rolling period of the vessel to be?	10.0 seconds	10.5 seconds	11.0 seconds	11.5 seconds	
4	1004	B	The lifesaving signal used to indicate, "Landing here highly dangerous" is _____.	firing of a white star signal	firing of a red star signal	vertical motion of a red light	code letter "K" given by light or sound signaling apparatus	
4	1005	C	Which signal should be used to send the group "Distance 750 nautical miles"?	D750	D750N	R750	R750N	
4	1006	C	An immersion suit must be equipped with a(n) _____.	air bottle for breathing	orange smoke canister	whistle, light and retroreflective material	sea dye marker	
4	1007	D	What is the BEST conductor of electricity?	Carbon dioxide	Distilled water	Fresh water	Salt water	
4	1008	A	A minor heat burn of the eye should be treated by _____.	gently flooding with water	warming the eye with moist warm packs	laying the person flat on his back	mineral oil drops directly on the eye	

4	1009	C	The SS AMERICAN MARINER has the following drafts: FWD 09'-00", AFT 15'-11.5". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.	1.80 feet	1.89 feet	1.98 feet	2.05 feet	ST-0021
4	1010	A	Which action will best increase the transverse stability of a merchant vessel at sea?	Ballasting the double bottom tanks	Deballasting the deep tanks	Positioning a heavy lift cargo on the main deck	Raising the cargo booms to the upright position	
4	1011	C	Which vessel(s) is(are) required to comply with the vessel bridge-to-bridge radiotelephone regulations while navigating?	All towing vessels 25 feet or less in length	All passenger vessels of 50 gross tons or less, carrying one or more passengers	Power-driven vessels 20 meters in length or longer	An intermittently manned floating plant under the control of a dredge	
4	1012	A	The discharge from a carbon dioxide fire extinguisher should be directed _____.	at the base of the flames	at the center of the flames	to the lee side of the flames	over the tops of the flames	
4	1013	A	If it is impractical to use the fill line to sound the fuel tank, then the tank should be fitted with _____. (Small Passenger Vessel Regulations)	a separate sounding tube or an installed marine type fuel gauge	An extra five gallon tank for reserve fuel	A good air vent of sufficient diameter	A glass tube to visually observe the fuel	
4	1014	B	Which signal would be used by a shore rescue unit to indicate "Landing here highly dangerous"?	The firing of a white star signal	Horizontal motion with a white flag	Vertical motion of a white light	Code letter "K" by blinker light	
4	1015	C	Which group should be used to send the signal Longitude 109°34'West?	D0934	LO10934W	G10934	L10934	
4	1016	C	What is the maximum length of time that distress flares are approved for?	1 and 1/2 years	2 years	3 and 1/2 years	5 years	
4	1017	A	The extinguishing agent most likely to allow reignition of a fire is _____.	carbon dioxide	foam	water fog	water stream	
4	1019	D	You are operating 10 miles offshore with three people aboard. What kind of survival craft must you carry?	An inflatable liferaft with a coastal pack	A life float	An inflatable buoyant apparatus	No survival craft is required.	
4	1020	B	Which vessels must comply with the vessel bridge-to-bridge radiotelephone regulations while navigating?	Towing vessels 25 feet in length or less	Passenger vessels of 100 gross tons or greater, carrying one or more passengers for hire	Power-driven vessels 12 meters or less in length	All of the above	
4	1021	D	Which vessel(s) is(are) required to comply with the vessel bridge-to-bridge radiotelephone regulations while navigating?	Towing vessel 25 feet or less in length	Passenger vessel of 50 GT or less, carrying one or more passengers for hire	Power-driven vessels 12 meters or less in length, operating on inland waters	Dredges engaged in operations likely to restrict navigation of other vessels in or near a channel or fairway	
4	1022	A	When fighting a fire on a bulkhead using a portable carbon dioxide extinguisher, the stream should be directed at the _____.	base of the flames, moving the horn from side to side, following the flames upward as they diminish	top of the flaming area, moving the horn from side to side, following the flames downward as they diminish	center of the flaming area, moving the horn vertically from top to bottom	bottom of the flaming area, moving the horn vertically to the top following the flames upward as they diminish	

4	1023	D	Providing you are not in a special area, such as the Mediterranean or Red Sea, how many nautical miles from land must you be to throw packing materials that will float into the sea?	3 nm	6 nm	12 nm	25 nm	
4	1024	D	The firing of a red star signal may mean _____.	"This is the best place to land"	"You are seen - assistance will be given as soon as possible"	"Tail block is made fast"	"Slack away"	
4	1025	B	Which group should be used to send the signal "Latitude 73°25'North"?	G17325N	L7325N	LA7325N	N7325	
4	1026	C	A liferaft with a capacity of 8 people used in ocean service is required by regulations to carry _____.	8 liters of fresh water	12 units of provisions	12 liters of fresh water	24 units of provisions	
4	1027	C	What is the most important characteristic of the extinguishing agent in fighting a class "C" fire?	Weight	Temperature	Electrical nonconductivity	Cost	
4	1028	D	Symptoms of heat stroke are _____.	cold and moist skin, high body temperature	cold and dry skin, low body temperature	hot and moist skin, high body temperature	hot and dry skin, high body temperature	
4	1029	D	Which vessel(s) is(are) required to comply with the vessel bridge-to-bridge radiotelephone regulations while navigating?	Towing vessel 26 feet in length or greater	Passenger vessels of 100 gross tons or greater, carrying one or more passengers for hire	Power-driven vessels 20 meters in length or greater	All of the above	
4	1030	C	Which vessel(s) is(are) required to comply with the "Vessel Bridge-to-Bridge Radiotelephone Regulations" while navigating?	Towing vessels 25 feet or less in length, engaged in towing operations	Passenger vessel 50 gross tons or less, carrying passengers for hire	Dredges engaged in operations likely to restrict navigation of other vessels in or near a channel or fairway	An intermittently manned floating plant under the control of a dredge	
4	1031	B	What is the major function of the deck water seal in an inert gas system?	Relieves excessive pressures from the system.	Isolates hazardous areas from nonhazardous areas.	Prevents the flow of inert gas into closed or isolated tanks.	Removes any leftover water or soot after the gas has been scrubbed.	
4	1032	A	When used to fight fire, carbon dioxide _____.	is effective if used promptly on an oil fire	has a greater cooling effect than water	is lighter than air	is harmless to cargo and crew	
4	1033	C	Your vessel has been in a collision. After assessing the damage, you begin down flooding. This will cause the KB to do what?	Fall	Remain stationary	Rise	Shift to the high side	
4	1034	A	Which vessels must comply with the vessel bridge-to-bridge radiotelephone regulations while navigating?	All towing vessels 26 feet in length or greater	All passenger vessels less than 100 gross tons	All power-driven vessels 12 meters or less in length	All of the above	
4	1035	D	The letter G, when sent with a complement, may be followed by _____.	two numerals	two letters	three or four numerals	four or five numerals	
4	1036	B	Life preservers must be marked with the _____.	stowage space assigned	vessel's name	vessel's home port	maximum weight allowed	
4	1037	C	What is the minimum size power-driven vessel, not engaged in towing, required to comply with the vessel bridge-to-bridge radiotelephone regulations?	50 meters	25 meters	20 meters	12 meters	

4	1038	D	You are piloting a vessel, which is required to have a radiotelephone, on the navigable waters of the United States. You must _____.	maintain a listening watch and communicate in English	use the bridge-to-bridge VHF-FM designated frequency only to exchange navigational information or necessary tests	have on board an operator who holds a restricted radiotelephone operator permit or higher license, as well as a FCC ship station license	All of the above	
4	1039	A	On board small passenger vessels, fill lines and sounding pipes of gasoline tanks must extend directly _____.	to within one-half of their diameter from the bottom of the tank	To within one-half foot from the bottom of the tank	To the tank top	Midway between the top and bottom of the tank	
4	1040	D	General requirements for a vessel's radiotelephone station log are that _____.	logs must be kept in an orderly manner	erasures are not allowed	it must identify the vessel's name and official number	All of the above	
4	1041	B	The SS AMERICAN MARINER is ready to load the cargo listed. There is already 2685 tons of cargo on board with a KG of 27.4 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.	KG 25.4 feet	KG 26.0 feet	KG 26.6 feet	KG 27.2 feet	ST-0022
4	1042	D	Which danger exists to people when CO2 is discharged into a small enclosed space?	Damaged eardrums	Electric shock	Frostbite	Respiratory arrest	
4	1043	A	Your vessel is damaged and on an even keel. There is no trim. The freeboard is reduced to less than 1 foot. The rolling period is very long, and the vessel is sluggish in returning from a roll. Which action would you take FIRST to improve stability?	In calm seas lower the lifeboats to the water and keep them alongside.	Rig the jumbo boom and use it to jettison heavy deck cargo.	Press up a centerline double bottom that is now filled to 15% capacity.	Pump out the peak tanks simultaneously.	
4	1044	C	What is the lifesaving signal for "You are seen - Assistance will be given as soon as possible"?	Green star rocket	Red star rocket	Orange smoke signal	Horizontal motion of a flag	
4	1045	C	Which group would be used to send the signal Greenwich mean time 11:35 pm?	GMT 1135PM	T 2335 GMT	Z 2335	G 2335	
4	1046	D	On small passenger vessels a gasoline tank vent pipe must _____.	have a cross sectional area not less than that of 19 millimeters OD tubing.	be connected to the tank at its highest point	terminate in a U-bend as high above the weather deck as practicable	All of the above	
4	1047	A	The main advantage of a steady stream of water on a class "A" fire is that it _____.	breaks up and cools the fire	protects the firefighting crew	removes the oxygen	washes the fire away	
4	1048	A	The angle of maximum righting arm corresponds approximately to the angle of _____.	deck edge immersion	the load line	downflooding	loll	
4	1049	D	The SS AMERICAN MARINER has the following drafts: FWD 09'-00", AFT 15'-11". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.	2.62 feet	2.82 feet	2.97 feet	3.15 feet	ST-0023

4	1050	D	A gasoline fuel tank vent on a small passenger vessel should terminate _____.	As close to the deck plates as possible	Below the waterline to eliminate the accumulation of explosive vapors	Midway between the fuel tank and the engine	On the hull exterior as high above the waterline as practicable and remote from any hull opening	
4	1051	B	The fresh air intake of the inert gas system _____,	prevents the flue gas from falling below an oxygen content of 3%	allows the inert gas piping to be used for gas freeing the tanks	opens when there is excessive vacuum on the deck water seal	enables outside air to mix with and to cool the hot flue gasses	
4	1052	C	The danger associated with using carbon dioxide in an enclosed space is _____.	frostbite	skin burns	asphyxiation	an explosive reaction	
4	1053	D	Your vessel is damaged and listing to port. The rolling period is long, and the vessel will occasionally assume a starboard list. Which action should you take FIRST?	Fill an empty double bottom tank on the starboard side	Transfer all possible movable weights from port to starboard	Pump out ballast from the port and starboard double bottom tanks	Press up a slack centerline double bottom tank	
4	1054	B	By day, the signal meaning, "This is the best place to land" is a _____.	vertical motion of a red flag	vertical motion of a white flag or the arms	white smoke signal	white star rocket	
4	1055	D	The signal K4 sent by any method means _____.	a distance of 4 miles	a speed of 4 knots	the wind is from the south	"I wish to communicate with you by sound signals"	
4	1056	D	U.S.C.G. approved buoyant work vests are considered to be items of safety equipment and may be worn by members of the crew _____.	in lieu of life preservers during fire drills	in lieu of life preservers during boat drills	in lieu of life preservers during an actual emergency	when carrying out duties near a weather deck's edge	
4	1057	B	The primary method by which water spray puts out fires is by _____.	removing the oxygen	cooling the fire below the ignition temperature	removing combustible material	diluting combustible vapors	
4	1058	C	Which statement describes the relationship between flash point and auto-ignition temperature?	Both are higher than normal burning temperatures.	The flash point is always higher.	The ignition temperature is always higher.	They are not necessarily related.	
4	1059	B	Provided every effort is made to preserve body moisture content by avoiding perspiration, how long is it normally possible to survive without water?	Up to 3 days	8 to 14 days	15 to 20 days	25 to 30 days	
4	1060	C	The SS AMERICAN MARINER will sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the drafts.	FWD 26'-06", AFT 28'-10"	FWD 26'-10", AFT 28'-05"	FWD 27'-00", AFT 28'-03"	FWD 27'-03", AFT 28'-00"	ST-0024
4	1061	B	What are the symptoms of sun stroke?	Temperature falls below normal, pulse is rapid and feeble, skin is cold and clammy.	Temperature is high, pulse is strong and rapid, skin is hot and dry.	Temperature is high, pulse is slow and feeble, skin is clammy.	Temperature falls below normal, pulse is rapid, skin is clammy.	
4	1062	A	Weight is considered during the periodic required inspection and servicing of _____.	CO2 (carbon dioxide) fire extinguishers	foam fire extinguishers	water (stored pressure) fire extinguishers	All of the above	
4	1063	D	Gasoline tank vent lines on board small passenger vessels must be fitted with removable flame screens _____.	and 30 square inches of louvers	three inches in diameter with a check valve to prevent water from entering in heavy weather	three inches in circumference inside the fill pipe	consisting of a single screen of at least 30 X 30 mesh, corrosion resistant wire	
4	1064	C	By day, the horizontal motion of a white flag, or arms extended horizontally, by a person on the beach indicates _____.	"Haul away"	"Tail block is made fast"	"Negative"	"Affirmative"	

4	1065	C	Upon hearing the abandon ship signal, you put on your life jacket and report to your station. After the cover is removed you board your open lifeboat. The FIRST thing to do is to _____.	release the gripes	release tricing pendants	put the cap on the drain	lift the brake handle	
4	1066	D	Coast Guard approved buoyant work vests _____.	may be substituted for 10 percent of the required life preservers	should be stowed adjacent to lifeboats and emergency stations	may be used by boat crews and line handlers during lifeboat drills	should be used when carrying out duties near a weather deck's edge	
4	1067	B	A large oil fire on the deck of a ship can be fought most effectively with _____.	dry chemical	foam	high-velocity fog	Water (cartridge-operated)	
4	1068	B	The "flammable limits" of an atmosphere are the _____.	two temperatures between which an atmosphere will self ignite	upper and lower percentage of vapor concentrations in an atmosphere which will burn if an ignition source is present	upper and lower pressures between which an atmosphere will not burn	two temperatures between which an atmosphere will burn if an ignition source is present	
4	1069	B	After the initial AMVER Position Report, sent by a vessel sailing foreign, subsequent Position Reports must be sent no less frequently than every _____.	Monday, Wednesday, and Friday	48 hours	36 hours	24 hours	
4	1070	D	On small passenger vessels, fuel lines may be made of _____.	plastic, rubber, or seamless steel tubing	stainless steel, iron, or brass	copper, plastic, stainless steel, or galvanized iron	annealed tubing of copper, nickel-copper, or copper nickel	
4	1071	D	Aboard small passenger vessels, which material may be used for diesel fuel line installations but not for gasoline fuel lines?	Annealed copper tubing	Nickel-copper tubing	Copper-nickel tubing	Seamless steel pipe or tubing	
4	1073	A	Your vessel is damaged and partially flooded. It is listing 12° to port and trimmed 8 feet down by the head. It has a long, slow, sluggish roll. Which action should you take FIRST?	Press up an after, slack, centerline double bottom tank	Pump out the forepeak tank	Jettison the anchors and anchor cables	Jettison deck cargo from the port side	
4	1074	A	Which one of the following signals is made at night by a lifesaving station to indicate "Landing here highly dangerous"?	Horizontal motion of a white light or flare	Vertical motion of a white light or flare	White star rocket	Vertical motion of a red light or flare	
4	1075	C	Prior to lowering the lifeboat, the most important item to check is the _____.	oars	sail	boat plug	life preservers	
4	1076	C	The life jackets on all vessels shall be _____.	inspected weekly	worn at all times	readily available	tested yearly	
4	1077	B	A vessel's KG is determined by _____.	dividing the total longitudinal moment summation by displacement	dividing the total vertical moment summation by displacement	multiplying the MT1 by the longitudinal moments	subtracting LCF from LCB	
4	1078	B	The explosive range of Bunker C mixed with air is _____.	0% to 1% by volume	1% to 5% by volume	5% to 10% by volume	10% to 20% by volume	
4	1079	A	Which alarm is NOT found on an inert gas system?	Low oxygen alarm	Low pressure alarm	Scrubber high water level alarm	Deck seal low water alarm	
4	1080	D	A vessel to which Annex V to MARPOL 73/78 applies is located in a MARPOL designated special area, 14 nautical miles from nearest land. What type of garbage is permitted to be discharged?	Paper products	Glass ground to less than 1"	Metal ground to less than 1"	Food waste	
4	1081	D	All of the following are part of the fire triangle EXCEPT _____.	heat	oxygen	fuel	electricity	

4	1082	B	Which statement is TRUE concerning combustible gas indicators?	One sample of air is adequate to test a tank.	They do not work properly where there is a lack of oxygen.	They will detect a lack of oxygen.	They are calibrated to read the percentage chance of explosion.	
4	1083	A	On board small passenger vessels, fittings used in a gasoline supply line must be _____.	made of non-ferrous metal, and be a flare or non-bite flareless type	an interlocking type	a silver-soldered type	an asbestos covered type	
4	1084	D	On small passenger vessels, what type of devices are required at both the tank and engine connections of all internal combustion engine fuel lines?	Clean out plates	Fuel gauges	Drain valves	Shut-off valves	
4	1085	C	When lowering lifeboats in heavy seas, a good practice is to rig frapping lines _____.	on only the forward falls	on only the after falls	with a lead of about 45 degrees to the boat	from the falls to the main deck of the vessel	
4	1086	D	Required lifesaving equipment on existing vessels may be continued in use on the vessel if _____.	kept on board no more than 2 years	inspected and serviced every 6 months	destroyed if more than 5 years old	maintained in good and serviceable condition	
4	1087	D	A combination or all-purpose nozzle produces _____.	low-velocity fog only	a solid stream only	a solid stream and foam	a solid stream and fog	
4	1088	A	The flash point of a liquid means the temperature _____.	at which a liquid will give off flammable vapors	at which a liquid will burn steadily	at which a liquid will explode	that a liquid must reach before it will flow readily	
4	1089	C	During counterflooding to correct a severe list aggravated by an off-center load, your vessel suddenly takes a list or trim to the opposite side. You should _____.	continue counterflooding in the same direction	continue counterflooding, but in the opposite direction	immediately stop counterflooding	deballast from the low side	
4	1090	D	The SS AMERICAN MARINER has the following drafts: FWD 09'-00", AFT 15'-11.5". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.	1.80 feet	1.89 feet	1.98 feet	2.05 feet	ST-0025
4	1091	B	The SS AMERICAN MARINER has the following drafts: FWD 09'-00", AFT 15'-11.5". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.	2.49 feet	2.38 feet	2.27 feet	2.05 feet	ST-0026
4	1092	A	Which statement is TRUE concerning a combustible gas indicator?	Several seconds will elapse between the taking of a sample and the reading appearing on the dial.	The instrument will operate in any atmosphere.	Toxicity of the atmosphere is measured by the instrument.	All of the above	
4	1093	B	On small passenger vessels, which device(s) must be fitted to a fuel line's tank connection?	A fuel strainer	A shut-off valve	A tubular glass gauge to indicate the fuel level	All of the above	
4	1094	C	A small craft advisory forecasts winds of up to what speed?	16 kts.	24 kts.	33 kts.	48 kts.	
4	1095	C	When launching a lifeboat, frapping lines should be rigged _____.	before the gripes are released	before the boat is moved from the davits	at the embarkation deck	after the boat is in the water	

4	1096	A	What is the minimum number of ring life buoys required on board a 275-foot cargo vessel engaged in coastwise trade, under the alternatives for cargo vessels in a specified service?	6	8	12	14	
4	1097	A	Foam extinguishes a fire by _____.	shutting off the air supply	cooling the fuel to below ignition temperature	dispersing the fuel	removing the source of ignition	
4	1098	A	Which statement is TRUE concerning the "flash point" of a substance?	It is lower than the ignition temperature.	It is the temperature at which a substance will spontaneously ignite.	It is the temperature at which a substance, when ignited, will continue to burn.	It is the temperature at which the released vapors will fall within the explosive range.	
4	1099	A	On small passenger vessels, shut-off valves must be installed on both gasoline and diesel fuel supply lines _____.	at the tank and the engine end of the fuel line	outside the engineroom on the fill and vent lines	only at the tank end of the fuel line	only at the engine end of the fuel line	
4	1100	C	The maximum speed of lowering for a lifeboat on gravity davits is controlled by the _____.	limit switches	emergency disconnect switch	governor brake	position of the counterweight on the brake handle	
4	1101	A	A crew member has suffered frostbite to the toes of the right foot. Which is NOT an acceptable first aid measure?	Rub the toes briskly.	Elevate the foot slightly.	Rewarm rapidly.	Give aspirin or other medication for pain if necessary.	
4	1102	D	While using a combustible gas indicator, if the hydrocarbon content of the atmosphere exceeds the U.E.L., the needle of the indicator will _____.	remain at zero without moving	move to the maximum reading and stay there	move halfway up the scale	move to the maximum reading and immediately return to zero	
4	1103	A	A vessel is "listed" when it is _____.	inclined due to an off-center weight	inclined due to the wind	down by the head	down by the stern	
4	1104	C	When there is a small craft advisory winds are predicted up to _____.	15 knots	24 knots	33 knots	42 knots	
4	1105	D	In launching a lifeboat, when should the tricing pendants be released?	Before the boat is lowered from the stowage position	As soon as the boat-fall blocks clear the davit head	After the limit switch is activated	After all people have been embarked	
4	1106	C	On small passenger vessels, when may a flexible hose be used in gasoline or diesel fuel lines?	In diesel installations only	In gasoline installations only	In both diesel and gasoline installations	In neither diesel nor gasoline installations	
4	1107	B	In the production of chemical foam by a continuous-type generator _____.	the maximum water pressure to be used is 50 psi	the speed of foam production is slower at lower water temperatures	each pound of foam powder produces about 800 gallons of chemical foam	fresh water only should be used	
4	1108	A	The vapor pressure of a substance _____.	increases with the temperature	decreases as temperature increases	is not affected by temperature	may increase or decrease as the temperature rises	
4	1109	D	On small passenger vessels, drains or outlets for drawing off diesel fuel from water traps or strainers _____.	must be located at the lowest portion of the tank	must have only a gravity-forced flow	must be extended to an external area of the hull	are permitted	
4	1110	C	Limit switches on gravity davits should be tested by _____.	the engineers, from a panel in the engine room	shutting off the current to the winch	pushing the switch lever arm while the winch is running	All of the above	
4	1111	D	On small passenger vessels, outlets in fuel lines are permitted _____.	to tap fuel for cleaning parts and engine wash down	for inspection purposes only	to bleed fuel lines	under no circumstances in gasoline installations	

4	1112	D	A combustible gas indicator meter is calibrated to read the percentage of _____.	vapor to oxygen	the flammable limit concentration	the autoignition concentration	the lower explosive limit concentration	
4	1114	D	The National Weather Service differentiates between small craft, gale, whole gale, and hurricane warnings by the _____.	amount of rain forecasted	wave heights forecasted	amount of cloud cover forecasted	wind speed forecasted	
4	1115	C	When launching a lifeboat, the tricing pennants should be released _____.	before the boat is lowered from the stowed position	as the boat-fall blocks break clear of the davit head	before the boat is lowered from the embarkation level	after the boat is released into the water	
4	1116	C	Line throwing apparatus aboard ship must contain _____.	two rockets, one of which shall be the buoyant type	three rockets, one of which shall be the buoyant type	four rockets, two of which shall be the buoyant type	five rockets, two of which shall be the buoyant type	
4	1117	D	Production of mechanical foam by a portable in-line foam proportioner _____.	increases the size of foam bubbles formed	increases the rate of foam production	improves the extinguishing properties of foam	gives the nozzleman more freedom of movement, since it can be placed anywhere in the hose line	
4	1118	B	The volatility of a flammable liquid is indicated by its _____.	ignition temperature	flash point	flammable range	conversion index	
4	1119	D	A fill pipe for a gasoline tank on board a small passenger vessel must be _____.	arranged so neither liquid gasoline nor its vapors can overflow or escape inside the vessel	terminated on the weather deck and extend to within one-half of its diameter from the bottom of the tank	fitted with a suitably marked watertight deck plate or screw cap	All of the above	
4	1120	D	You will find a limit switch on a _____.	liferaft cradle	radial davit	sheath-screw davit	gravity davit	
4	1121	D	In shown, number 1 operates the _____.	releasing gear	McCluny hook	sea painter	Fleming gear	D011SA
4	1122	A	A combustible gas indicator will operate correctly ONLY when the _____.	hydrocarbon content of the atmosphere is less than the U.E.L.	atmosphere is deficient in oxygen	compartment to be tested is free of CO2	All of the above	
4	1123	B	On small passenger vessels, all spaces containing gasoline-powered machinery or gasoline storage tanks must be ventilated with _____.	mechanical air supply fans and natural exhaust	natural air supply and mechanical exhaust fans	cowls and scoops which can be closed during foul weather	air conditioning to control moisture	
4	1124	D	Spaces containing gasoline-powered machinery or gasoline storage tanks on small passenger vessels should have ventilator ducts that extend to the bilges because _____.	air is heavier than gas fumes	oil and water mix there	it prevents air from entering or leaving the space	Gasoline vapors are heavier than air, tend to settle in the bilges, and create an explosion hazard	
4	1125	B	What is the best procedure for picking up a lifeboat at sea while utilizing the lifeboat's sea painter?	Place the lifeboat ahead and to windward of your vessel with the wind about broad on the bow of your ship.	Place the lifeboat ahead and to leeward of your ship with the wind about broad on the bow of your ship.	Place your ship to windward of the lifeboat with the wind on the quarter to allow your ship to drift down to the lifeboat.	Place the lifeboat ahead and to windward of your ship with the wind about broad on the quarter of your ship.	
4	1126	A	Aboard small passenger vessels which type(s) of ventilation must be provided for enclosed spaces containing gasoline engines or gasoline fuel tanks?	Natural supply and mechanical exhaust	At least one opening to the exterior of the hull	Mechanical supply and natural exhaust	Any of the above	

4	1127	C	Compared to the amount of concentrated foam liquid used, the amount of low expansion mechanical foam produced is _____.	97 times greater	94 times greater	10 times greater	2 times greater	
4	1128	C	Most small passenger vessels have an auxiliary steering arrangement. According to the regulations, which is acceptable as a substitute for the auxiliary steering system?	A threefold purchase, rove to advantage	A spare rudder, stowed so it can be readily mounted	A suitable hand tiller, approved by the OCMI	All of the above	
4	1129	C	Which function is NOT provided by the scrubber of an inert gas system?	Cools the inert gas.	Removes particulate matter like soot.	Maintains gas pressure in the tanks.	Removes chemical impurities from the gas.	
4	1130	C	What is the purpose of the limit switch on gravity davits?	To cut off the power when the davits hit the track safety stops	To stop the davits from going too fast	To cut off the power when the davits are about 12 inches or more from the track safety stops	None of the above	
4	1131	C	If you observe any situation which presents a safety or pollution hazard during fuel transfer operations, what action should you take FIRST?	Close the valves at the transfer manifold	Notify the person in charge of the shore facility	Shut down the transfer operation	Sound the fire alarm	
4	1132	C	According to 46 CFR Subchapter T, how long should exhaust blowers be operated in enclosed spaces containing gasoline powered machinery before starting the engine?	For at least four to five minutes	Long enough to achieve a minimum of two complete air changes	Long enough to achieve at least one complete change of air	No fixed amount, but the blower should run until you don't smell any gas	
4	1133	B	If you must enter water on which there is an oil fire, you should _____.	protect your life preserver by holding it above your head	enter the water on the windward side of the vessel	keep both hands in front of your face to break the water surface when diving head first	wear very light clothing	
4	1134	D	On board small passenger vessels, ducts for compartments which contain gasoline powered machinery or gasoline storage tanks _____.	must not allow any appreciable vapor flow except through their normal openings	must be of rigid, permanent construction	must lead as directly as possible and be properly fastened and supported	All of the above	
4	1135	C	Which statement about the bilge piping system of "T-Boats" that are more than 26 feet in length is NOT correct?	Each watertight compartment must have its own bilge suction line or pump	Each space's bilge suction connection to a manifold must have stop and check valves, or a stop-check valve	All bilge piping must be at least 2" inside-diameter brass pipe	Bilge suction strainers must have an open area not less than three times the area of the bilge pipe	
4	1136	B	The breaking strength of the service lines of the rockets used with an impulse-projected, rocket type line throwing appliances is _____.	300 lbs	500 lbs	1000 lbs	1500 lbs	
4	1137	A	One gallon of low expansion foam solution will produce about _____.	10 gallons of foam	25 gallons of foam	100 gallons of foam	500 gallons of foam	
4	1138	D	What is LEAST likely to cause ignition of fuel vapors?	Static electricity	An open running electric motor	Loose wiring	Explosion proof lights	
4	1139	D	You are at the helm of a sloop-rigged sailing vessel under sail on the port tack, on a beam reach, with all appropriate sails set and properly trimmed. You are instructed to "head up quickly". To utilize your sails to assist with the turn, you should _____.	slack the main sheet	slack the main outhaul	trim the foreguy	slack the jib sheet	

4	1140	B	Limit switches are used on which davits?	Sheath-screw davits	Gravity davits	Radial davits	Quadrantal davits	
4	1141	D	You are on a supply run to an offshore drilling rig. On board is the cargo listed. What is the height above the main deck of the center of gravity of the cargo?	2.15 feet	2.05 feet	1.85 feet	1.52 feet	ST-0027
4	1142	B	While testing a cargo tank, your oxygen indicator reads 25% oxygen in the tank. You would then _____.	enter the tank safely	suspect the accuracy of the reading	ventilate the tank	test for nitrogen	
4	1143	D	For pumping the bilges, a 54 foot long "T-Boat", which is not a ferry, but is certificated to carry 30 passengers, must be fitted with at least _____.	one fixed power pump and one portable hand pump	one fixed hand pump and one portable hand pump	two portable hand pumps	either "A" or "B"	
4	1144	A	Aboard a 60 foot long small passenger vessel (other than a ferry) which is certificated to carry 33 persons, the minimum capacity required per bilge pump is _____.	10 gallons per minute	19 gallons per minute	38 gallons per minute	50 gallons per minute	
4	1145	C	When hoisting a boat on gravity type davits using an electric motor driven winch, the davit arms should be brought up _____.	to their final position with the winch operating at slow speed	to the bar stop, and then hand cranked to their final position	until just before they make contact with the limit switch, and then hand cranked to their final position	to the embarkation deck, and then hand cranked to their final position	
4	1146	A	Which vessel is NOT required to carry a rocket-type line throwing appliance?	An ocean-going vessel of 140 GT	A coastwise vessel of 550 GT	A river-going vessel of 760 GT	All of the above	
4	1147	C	In addition to a portable hand-operated bilge pump, a 55 foot long ferry must have a fixed power operated bilge pump capable of pumping at least _____.	5 GPM	10 GPM	25 GPM	50 GPM	
4	1148	A	Spontaneous combustion is most likely to occur in _____.	rags soaked in linseed oil	overloaded electrical circuits	dirty swabs and cleaning gear	partially loaded fuel tanks	
4	1149	A	If the metacentric height is small, a vessel will _____.	be tender	have a quick and rapid motion	be stiff	yaw	
4	1150	B	After the boat is at the top of the davit heads, the davit arms begin moving up the tracks and are stopped by the _____.	hoist man	limit switch	brake handle	preventer bar	
4	1151	A	Treatment of sunstroke consists principally of _____.	cooling, removing to shaded area, and lying down	bathing with rubbing alcohol	drinking ice water	All of the above	
4	1152	C	Hand tillers are only accepted as an auxiliary means of steering if _____.	they are at least 6 feet long	they are not operated through a reduction gear	they are found satisfactory by the cognizant OCMI	Both A and C above	
4	1153	C	According to 46 CFR Subchapter T, rigid plastic and other nonmetallic piping materials _____.	may replace metal pipe or tubing in any installation	may not be used on inspected vessels	may only be used in non-vital systems	are preferable to steel pipe	
4	1154	D	On a small passenger vessel, backfire flame arrestors are installed on a/an _____.	oil fired turbine or reciprocating steam engine	turbocharged diesel engine	natural gas (propane) engine	gasoline powered engine	
4	1155	A	When picking up a lifeboat at sea with way on the ship, the sea painter should be secured _____.	well forward in the lifeboat	about amidships in the lifeboat	well aft in the lifeboat	only after the falls have been attached	
4	1156	B	Which statement is TRUE concerning the testing of the line-throwing appliance?	It shall be fired at least once in every three months.	A drill in its use shall be held once in every 3 months.	Drills shall be held quarterly and it shall be fired annually.	No drills are required.	
4	1157	B	When using the combustible gas indicator, a special filter for filtering the incoming sample must be used if the atmosphere being tested contains vapors of _____.	sour crude	leaded gasoline	CO2	chlorine	

4	1158	C	Spontaneous combustion is caused by _____.	an outside heat source heating a substance until it ignites	conduction of heat through a wall of material to the substance	chemical action within a substance	All of the above	
4	1159	C	The SS AMERICAN MARINER is ready to load the cargo listed. There is already 3315 tons of cargo on board with a KG of 27.0 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.	KG 26.2 feet	KG 27.4 feet	KG 28.6 feet	KG 30.1 feet	ST-0028
4	1161	D	You are approaching another vessel and see that she has the signal flag "A" hoisted. What should you do?	Give the vessel a wide berth as she is carrying dangerous goods.	Attempt to call the vessel on VHF radiotelephone because she is disabled.	Stop your vessel instantly.	Slow your vessel and keep well clear because she has a diver down.	
4	1162	B	Which instrument is suitable for determining the presence of explosive concentrations of fuel oil vapors in tanks?	A flame safety lamp	A combustible gas indicator	A liquid cargo meter	All of the above	
4	1163	C	Individual wires, used in systems greater than 50 volts, _____.	should be supported at 24 inch intervals with plastic tie wraps	should never be located in a tank	must be installed in conduit	All of the above	
4	1164	B	A drill must be conducted in the use of the line throwing appliance at least once in every _____.	2 months	3 months	4 months	5 months	
4	1165	C	When in command of a lifeboat under oars, the command "Backwater" means to _____.	lift oars to vertical position, trim blades fore and aft with handles resting on footings	complete the stroke, come to "Oars", raise oars smartly to vertical, rest handles on footing, trim blades fore and aft	row in astern motion	complete stroke, stop rowing, dip blade about halfway into water, hold water to stop the way on the boat	
4	1167	D	A pumproom is suspected of accumulating gases after a ventilation machinery breakdown. Where should the combustible gas indicator case be placed when testing the pumproom atmosphere for combustible gases?	In the lower level of the pumproom	In the middle level of the pumproom	In the upper level of the pumproom	On the deck outside the pumproom	
4	1168	C	What is the maximum oxygen content below which flaming combustion will no longer occur?	1%	10%	15%	21%	
4	1169	B	Your vessel's draft is 24'-06" forward and aft. The MT1 of your vessel is 1000 ft-tons. How many tons of cargo must be loaded in number 4 hold, which is 100 feet abaft the tipping center, if she is to have a 2 foot drag?	120 tons	240 tons	300 tons	480 tons	
4	1170	B	When operating gravity davits, the _____.	gripes should be released after the boat is moving	davits should always be hand cranked the last 12 inches into the final stowed position	boats are generally lowered by surging the falls around cruciform bitts	tricing pendant should be tripped prior to releasing the gripes	
4	1171	C	The SS AMERICAN MARINER has the following drafts: FWD 09'-00", AFT 15'-11". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.	2.62 feet	2.82 feet	2.97 feet	3.15 feet	ST-0029

4	1172	B	What could result in an incorrect oxygen concentration reading on the oxygen indicator?	Exposure to carbon dioxide for no more than 1 minute	Exposure to carbon dioxide for more than 10 minutes	Exposure to a very low concentration of sulfur dioxide for no more than 2 minutes	None of the above	
4	1173	A	On small passenger vessels all connections to electrical conductors MUST be _____.	made within enclosures	served and parceled with the lay, turned and wormed the other way	installed only by a licensed marine electrician	inspected annually by the Coast Guard	
4	1174	D	In general, batteries aboard small passenger vessels should be _____.	as high above the bilge as practicable	stowed in well-ventilated spaces to allow dissipation of any gases generated	accessible for maintenance and removal	All of the above	
4	1176	C	Your vessel is required to have an impulse-projected line throwing appliance. The auxiliary line must _____.	be of a light color	be 250 meters in length	have a breaking strength of 9000 lbs	be made of synthetic material	
4	1177	C	You are on a supply run to an offshore drilling rig. On board is the cargo listed. What is the height above the main deck of the center of gravity of the cargo?	1.20 feet	1.64 feet	2.26 feet	3.00 feet	ST-0030
4	1178	C	The lowest temperature required to cause self-sustained combustion of a substance independent of any outside source of ignition is called _____.	explosive range	flash point	ignition temperature	combustion temperature	
4	1179	B	Storage batteries on "T-Boats" must be located _____.	in sight of the main engine(s)	in a tray lined with suitable material that resists damage from the electrolyte	in locked closets with restricted ventilation	near the bilge to lower the center of gravity and improve stability	
4	1181	A	The SS AMERICAN MARINER is ready to load the cargo listed. There is already 4145 tons of cargo on board with a KG of 25.5 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.	KG 25.0 feet	KG 25.6 feet	KG 26.2 feet	KG 26.8 feet	ST-0031
4	1182	A	An oxygen indicator can be used to determine if there is _____.	sufficient oxygen in a compartment to support life	combustible gases present	hydrogen gas present	All of the above	
4	1183	C	The engine in a covered lifeboat is fueled with _____.	leaded gasoline	unleaded gasoline	diesel oil	liquefied gas	
4	1184	B	If an inflatable liferaft is to be released manually, where should the operating cord be attached before throwing the raft overboard?	Do not attach the cord to anything but throw it overboard with the raft container.	Attach the cord to a fixed object on the ship.	You should stand on the cord.	Attach the cord to the special pad eye on the "raft davit launcher".	
4	1185	D	If the steersman of your lifeboat gives the command "Way enough", you should _____.	complete the stroke, hold your oar out from the boat and level with the water	dip the blade of your oar into the water and leave it there	lift your oar to a vertical position	complete the stroke, raise your oar slightly, swing it forward, and place it in the boat	
4	1187	C	A self-contained breathing apparatus is used to _____.	make underwater repairs to barges	determine if the air in a tank is safe for men	enter areas that may contain dangerous fumes or lack oxygen	resuscitate an unconscious person	
4	1188	B	The most effective way to apply a foam stream if the fire is on deck or is a running fire, is to direct the stream _____.	onto the surface of the burning liquid	ahead of the burning liquid and bounce it on the fire	at the base of the burning liquid in a sweeping motion	just above the surface of the burning liquid	

4	1189	B	The SS AMERICAN MARINER has the following drafts: FWD 09'-00", AFT 15'-11". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.	2.62 feet	2.82 feet	2.97 feet	3.15 feet	ST-0032
4	1190	D	What could be a result of insufficient lubrication of lifeboat winches and davits?	Moisture accumulation in winch motor damaging the electrical wiring	Freezing of gears in cold weather	Corroding of sheaves on the davits so they will not rotate	All of the above	
4	1191	B	According to the T-Boat regulations the reason for providing adequate ventilation for a battery storage area is to prevent _____.	accumulation of carbon dioxide gas that chokes the battery	accumulation of explosive and toxic gases the battery can generate	mildew or dry rot in the battery box	battery failure including battery case meltdown caused by excessive heat	
4	1192	C	Which statement is TRUE concerning the oxygen indicator?	Exposure to flue gas has no effect on the instrument.	Only one level of the tested space need be sampled by the instrument.	Prolonged exposure to CO2 can result in false readings.	The instrument can detect hydrogen gas.	
4	1193	C	On small passenger, vessels spaces containing batteries require good ventilation because it _____.	adds as much as 2 volts to battery performance	supplies extra nitrogen for the battery	helps dissipate flammable gas accumulations	allows less soda water to be used in the diodes	
4	1194	C	Which operation should be done when launching an inflatable liferaft by hand?	Open the liferaft casing.	Turn the valve on the CO2 cylinder to start inflation.	Make sure the operating cord is secured to the vessel before throwing it over the side.	After inflation, detach operating cord from liferaft.	
4	1195	B	The command "Oars" means to _____.	lift the oars to a vertical position	complete the stroke and bring the oars horizontal, blades feathered	place the oars in the boat with blades forward	place the oars in the rowlocks directly from the boated position	
4	1196	B	The knife on an inflatable liferaft will always be located _____.	in one of the equipment bags	in a special pocket near the forward entrance	on a cord hanging from the canopy	in a pocket on the first aid kit	
4	1197	D	A squeeze-grip type carbon-dioxide portable fire- extinguisher has been partially discharged. It should be _____.	replaced in its proper location if weight loss is no more than 15%	replaced in its proper location if weight loss is no more than 25%	replaced in its proper location regardless of weight	labeled empty and recharged as soon as possible	
4	1198	B	Lead-acid batteries used aboard "T-Boats" must have terminal connections that are _____.	the spring slip style	a permanent type	located so as to be easily greased	temporarily clamped on the top of the battery	
4	1199	D	To prevent damage by and to storage batteries aboard small passenger vessels they should be located _____.	in trays constructed of material that is resistant to the electrolyte	so as to prevent movement when the vessel pitches and rolls	in a well ventilated area	All of the above	
4	1200	A	What is TRUE concerning frapping lines?	They are used to steady a lifeboat when lowered.	They are normally attached to the davit span.	They are needed only on radial davits.	They are used to clear the puddings.	
4	1201	D	While taking on fuel oil, the transfer hose leaks causing a sheen on the water. You should _____.	apply dispersants to the sheen	repair the leak with duct tape	reduce the rate of transfer	shut down operations	

4	1202	B	Which is the most accurate instrument for measuring the amount of oxygen in the atmosphere of a confined space?	Combustible gas indicator	Oxygen indicator	Flame safety lamp	All of the above	
4	1203	D	You are discharging cargo and the inert gas system is in operation to inert the tanks. The pressure in a tank being discharged starts to drop below the allowable limit. What action should you take?	Cut in another IG fan to increase gas flow.	Open the pressure control valve until the pressure increases.	Open the tank isolation valve to the fully open position.	Reduce the pumping rate.	
4	1204	A	Generally, when lifting an inflatable liferaft back aboard ship you would use the _____.	towing bridle	main weather cover	external lifelines	righting strap	
4	1205	B	On board small passenger vessels, storage batteries containing an electrolyte must be set in trays constructed of _____.	a fireproof material	a material resistant to damage by the electrolyte	a porous material that permits drainage of any acid overflow	suitably strong to hold the weight of the batteries	
4	1206	D	Inflatable liferafts are provided with a _____.	knife	towing connection	lifeline	All of the above	
4	1207	D	Which extinguishing agent is most effective on a mattress fire?	CO2	Foam	Dry Chemical	Water	
4	1208	D	A vessel aground may have negative GM since the _____.	decrease in KM is equal to the loss of draft	virtual rise of G is directly proportional to the remaining draft	lost buoyancy method is used to calculate KM, and KB is reduced	displacement lost acts at the point where the ship is aground	
4	1209	B	According to 46 CFR Subchapter T the purpose of fuses in electric wiring is to _____.	allow for cutting out branch circuits	prevent overloading the circuits	reduce voltage to the branch circuits	permit the use of smaller wiring for lighting circuits	
4	1210	C	The tricing pendants should be released _____.	before the gripes are removed	before loading the passengers	after loading the passengers	after the boat is afloat	
4	1211	B	A crew member suffering from hypothermia should be given _____.	a small dose of alcohol	treatment for shock	a large meal	a brisk rub down	
4	1212	D	Ambient air, which you normally breathe, contains what percent of oxygen?	6%	10%	15%	21%	
4	1213	B	When a wind force causes a vessel to heel to a static angle, the _____.	centers of buoyancy and gravity are in the same vertical line	righting moment equals the wind-heeling moment	center of buoyancy remains the same	deck-edge immersion occurs	
4	1214	C	An inflatable liferaft should be lifted back aboard the ship by using _____.	the single hook at the top of the raft	two lines passed under the raft	the towing bridle	All of the above	
4	1215	C	According to the regulations for small passenger vessels, fuses and circuit breakers are used in electrical circuits to _____.	keep equipment from shutting off unexpectedly	prevent voltage fluctuations	keep the circuit from becoming overloaded or overheated	make the operator inspect his wiring periodically after the fuses blow	
4	1216	D	After launching, an inflatable raft should be kept dry inside by _____.	opening the automatic drain plugs	draining the water pockets	using the electric bilge pump	using the bailers and cellulose sponge	
4	1217	A	Which types of portable fire extinguishers are designed for use on electrical fires?	Dry chemical and carbon dioxide	Foam (stored pressure) and soda-acid	Carbon dioxide and foam (stored pressure)	Dry chemical and soda-acid	
4	1218	D	To safely enter a compartment where CO2 has been released from a fixed extinguishing system, you should _____.	wear a canister type gas mask	test the air with an Orsat apparatus	test the air with a pure air indicator	wear a self-contained breathing apparatus	

4	1219	D	46 CFR Subchapter T requires that rigid plastic or other nonmetallic piping _____.	only be used in non-vital systems	not be used in gasoline or diesel fuel systems	have approved metallic fittings and cutoff valves where it penetrates a watertight deck or bulkhead	All of the above	
4	1220	B	Lines passed around the falls to hold the boat while passengers are boarding are _____.	life lines	frapping lines	tricing lines	tripping lines	
4	1221	B	Which operation may cause the pressure in an inert tank to fall below the prescribed limits?	Loading	Discharging	Crude oil washing	Steaming tanks	
4	1222	B	After each reading of an oxygen indicator, the instrument should be purged with _____.	CO2	fresh air	the tested compartment's air	water	
4	1223	A	The survival craft carried aboard a commercial fishing vessel must safely accommodate _____.	all of the people aboard	the number of people required by the certificate of inspection	the entire crew	None of the above are correct.	
4	1224	D	In order to retrieve an inflatable liferaft and place it on deck, you should heave on the _____.	lifelines	righting strap	sea anchor	towing bridle	
4	1225	D	If the coxswain of your lifeboat gives the command "Hold water" you should _____.	complete the stroke, raise your oar slightly, swinging the oar slightly forward, and place it in the boat	lift the oar in a vertical position	complete the stroke and hold the oar out of the water	dip the blade of your oar into the water vertically and hold it perpendicular to the keel line	
4	1226	D	For what purpose may gasoline be used on small passenger vessels?	Heating	Lighting	Cooking	None of the above	
4	1227	B	Which type of portable fire extinguishers is NOT designed for use on flammable liquid fires?	Foam (stored-pressure)	Water (cartridge-operated)	Dry chemical	Carbon dioxide	
4	1228	B	When approaching a fire from leeward, you should shield firefighters from the fire by using _____.	low-velocity fog	high-velocity fog	a straight stream of water	foam spray	
4	1229	C	Which T-Boat must be fitted with a suitable compass?	A vessel in river service	A vessel operating on a short, restricted route on lakes, bays, and sounds	A vessel engaged in ocean or coastwise service	The regulations do not require a compass on any vessel	
4	1230	D	The purpose of the tricing pendants is to _____.	control the fore and aft motion of a lifeboat during lowering	control the outboard swing of a lifeboat during lowering	provide suspensions for the manropes	hold a lifeboat next to the embarkation deck while loading	
4	1231	B	A "T-Boat" accident resulting in loss of life, serious injury or more than $25,000 property damage must be reported to _____.	the Maritime Administration (MARAD)	the Coast Guard	the owner or his insurance agent	All of the above	
4	1232	D	A marine chemist issues gas free certificates and is certified by which organization?	Mine Safety Appliance Association	American Chemical Society	Marine Chemists Association	National Fire Protection Association	
4	1233	D	The owner, agent, Master or person-in-charge of a small passenger vessel involved in a marine casualty is NOT required to notify the Coast Guard in cases where there is _____.	property damage less than $25,000	no injury which requires more than first aid treatment	death or injury to a shipyard worker or harbor worker not resulting from the vessel casualty	All of the above	

4	1234	D	When landing a lifeboat through heavy surf with a strong current running parallel to the beach (from right to left when facing from seaward) the recommended procedure is to _____.	approach while coming to the left to take advantage of the current	drop an anchor outside the surf line, then pay out anchor line over the bow while the seas carry the boat toward the beach	approach slow enough so that the boat can be brought around to meet breaking seas on the bow	rig a drogue with tripping line over the bow, back ashore with drogue tripped between breakers	
4	1235	D	Which procedure should NOT be done for a person who has fainted?	Revive the person with smelling salts.	Loosen the clothing.	Lay the person horizontally.	Give pain reliever.	
4	1236	D	Inflatable liferafts are provided with _____.	a portable radio	an oil lantern	canned milk	a towing connection	
4	1237	A	Portable-foam fire extinguishers are designed for use on what classes of fires?	A and B	A and C	B and C	A, B, and C	
4	1238	C	When attempting to enter a compartment containing a fire, which method of applying water is best?	High-velocity fog stream directed toward the overhead	Straight stream directed into the center of the fire	Sweeping the compartment with a fog stream	Solid stream directed toward the overhead	
4	1239	C	With the air supply on, the air pressure in an enclosed lifeboat will be _____.	changing in relation to the speed of the craft	less than outside air pressure	greater than outside air pressure	equal to outside air pressure	
4	1240	D	On open lifeboats, the purpose of the wire stretched between the davit heads is to _____.	keep the movement of the davits at the same speed	keep the davits from slipping when they are in the stowed position	prevent vibration during lowering of the boat	support the manropes	
4	1241	D	Your ship of 12,000 tons displacement has a center of gravity of 21.5 feet above the keel. You run aground and estimate the weight aground is 2500 tons. The virtual rise in the center of gravity is _____.	1.26 feet	3.80 feet	4.80 feet	5.66 feet	
4	1242	A	The bosun has thrown the liferaft into the water before abandoning the vessel. The operating cord _____.	serves as a sea painter	detaches from the liferaft automatically	is used to rig the boarding ladder	is cut immediately as it is of no further use	
4	1243	D	What is TRUE about hoisting operations?	Personnel may work beneath suspended loads, as long as they are alert and wear hard hats.	If a suspended load with no tag begins to spin, personnel should attempt to stop the spinning if the load is within reach.	If tag lines are used to control a suspended load, they should be secured to the deck.	Personnel not involved in the hoisting operation should be kept clear of the transfer area.	
4	1245	A	The Master of a small passenger vessel fitted with loading doors must ensure that the doors are closed, watertight and secured _____.	at all times when underway unless operating on protected or partially protected waters	when leaving the dock	when loading cargo	at all times, at the dock or underway when the loading door is not actually being used for passage	
4	1246	B	Inflatable liferafts are provided with _____.	a Very pistol	a towing connection	a portable radio	canned milk	
4	1247	B	The BEST method of applying foam to a fire is to _____.	spray directly on the base of the fire	flow the foam down a nearby vertical surface	sweep the fire with the foam	spray directly on the surface of the fire	
4	1248	A	In the event of fire in a machinery space, _____.	the fixed carbon dioxide system should be used only when all other means of extinguishment have failed	the fixed carbon dioxide system should be used immediately, as it is the most efficient means of extinguishment	water in any form should not be used as it will spread the fire	the space should be opened 5 minutes after flooding CO_2 to prevent injury to personnel	

4	1249	C	Which area is designated a special area by Annex V to MARPOL 73/78?	Gulf of Saint Lawrence	Sargasso Sea	Red Sea	Great Lakes	
4	1250	C	The falls on gravity davits are _____.	manila	nylon	wire	All of the above	
4	1251	D	The proper stimulant for an unconscious person is _____.	tea	coffee	whiskey and water	ammonia inhalant	
4	1252	D	When fighting a fire with a portable dry chemical fire extinguisher, the stream should be directed _____.	over the top of the flames	off a bulkhead into the fire	in front of the fire	at the base of the fire	
4	1253	C	If there are no alternatives for escape, what is the maximum height that the survival craft could be dropped into the water?	2 ft.	6 ft.	10 ft.	14 ft.	
4	1255	B	The color of the signal flare sent up by a submarine indicating that a torpedo has been fired in a training exercise is _____.	white	green	yellow	red	
4	1256	B	The water pockets located on the underside of inflatable liferafts _____.	stow rainwater; these 4 spaces do not take up valuable space	act as stabilizers by filling with sea water as soon as the raft is inflated and upright	hold the freshwater required by regulation to be provided in the raft when packed	None of the above	
4	1257	C	Providing you are not sailing in the Red Sea or another special area as listed in ANNEX V of MARPOL, how many miles from land must you be to throw garbage including bottles, rags, and glass that has not been ground up into the sea?	3 nm	6 nm	12 nm	25 nm	
4	1258	C	On a bulk chemical carrier, water should NOT be used as an extinguishing agent to fight a fire if the water may come into contact with the chemical called _____.	acrylic acid	benzene	oleum	vinyl toluene	
4	1259	C	When an autopilot is being used aboard small passenger vessels, who must make or supervise the changeover from automatic to manual steering and vice versa?	A licensed state or federal pilot	A certified quartermaster	The Master or Mate on watch	A qualified Engineer	
4	1260	A	The type of davit on which you must turn a crank in order to swing the lifeboat out over the ship's side is a _____.	sheath-screw davit	gravity davit	radial davit	bruckner davit	
4	1261	C	On small passenger vessels, when must watchmen patrol throughout the vessel to guard against and give alarm in case of fire or other danger?	At all times outside normal work hours	At all times when the vessel is underway	During the nighttime when the vessel carries overnight passengers	When the rest of the crew is asleep	
4	1262	D	Which portable fire extinguisher is normally recharged in a shore facility?	Dry chemical (cartridge-operated)	Water (cartridge-operated)	Water (pump tank)	Carbon dioxide	
4	1263	C	When chipping rust on a vessel, the MOST important piece of safety gear is _____.	a hard hat	gloves	goggles	a long sleeve shirt	
4	1264	D	The operating cord on an inflatable liferaft should be renewed by _____.	removing the top half of the shell, cutting the line at its source, and renewing completely	cutting the line where it enters the case and replacing that portion	leaving the original line and tying another one to it so the two lines will take the strain	an approved servicing facility ashore	
4	1265	D	The Master of a small passenger vessel must conduct sufficient drills and give sufficient instruction as necessary _____.	At each crew change	Every week	Every month	To ensure that all crew members are familiar with their duties during emergencies	
4	1266	D	A life line must be connected to the liferaft _____.	at the bow	at the stern	in the middle	all around	

4	1268	D	Where must the draft marks be placed on a small passenger vessel?	On each side of the stem	Near the stern post or rudder post	At each end of the vessel	All of the above	
4	1269	A	Life floats and buoyant apparatus used aboard small passenger vessels shall be marked in clearly legible letters and numbers _____.	with the parent vessels name in 3" high letters and the number of persons allowed with 1 1/2" high numbers	by a Coast Guard inspector after inspecting the equipment	by the American Bureau of Shipping (ABS), another recognized, authorized classification society or the vessels underwriters	by all of the above	
4	1270	C	The most common type of davit found on merchant vessels today is the _____.	radial	sheath-screw	gravity	quadrantal	
4	1271	A	The primary danger in helicopter fires is _____.	burning jet fuel running on to quarters or other areas	loss of stability	rotating and flying debris	heat damage to helicopter structure	
4	1272	A	When approaching a fire from windward, you should shield firefighters from the fire by using _____.	low-velocity fog	high-velocity fog	a straight stream of water	foam spray	
4	1273	D	In launching a covered lifeboat, what would safely lower the lifeboat from inside the lifeboat cabin?	Frapping line	Tricing line	Rottmer release	Winch remote control wire	
4	1274	B	On inflatable liferafts, the operating cord should be renewed by _____.	cutting the old line off and renewing same	an approved servicing facility ashore	opening the case and replacing the entire line	one of the ship's officers	
4	1275	C	A documented vessel's name is marked on a clearly visible exterior area of both sides of the bow and on the stern in block letters not less than _____.	6 inches in height	5 inches in height	4 inches in height	3 inches in height	
4	1276	D	The lights on the outside of the canopy on an inflatable liferaft operate _____.	by turning the globe clockwise	by a switch at each light	by a light sensor	automatically when the raft is inflated	
4	1277	B	When possible, what is the FIRST step in fighting an engine fuel-pump fire which results from a broken fuel line?	Secure all engine room doors, hatches, and vents.	Close the fuel line valve.	Check the spread of the fire with foam.	Cast the barge off the wharf.	
4	1278	D	An extinguishing agent which effectively cools, dilutes combustible vapors, removes oxygen, and provides a heat and smoke screen is _____.	carbon dioxide	Halon 1301	dry chemical	water fog	
4	1279	B	On a documented small passenger vessel, what information must be permanently affixed in block-type letters and/or numerals to the main beam or other clearly visible interior structural part of the hull?	The vessel's name and gross tonnage	The vessel's official number	Draft markings	The vessel's name and home port	
4	1280	A	On which type davit does the davit head stay at the same height?	Radial	Sheath-screw	Quadrantal	Gravity	
4	1281	C	You are in the process of righting an inflatable liferaft that has inflated in an upside down position. Which statement is TRUE?	As the raft flips to the upright position, you will be thrown clear.	After the raft is in the upright position on top of you, dive down to prevent your life preservers from fouling as you come out.	Swim out from under the raft in a face up position to keep your life preservers clear of the raft.	You should remove your life preservers before attempting to right an inflatable raft.	
4	1282	C	When approaching a fire from leeward you should shield fire fighters from the fire by using _____.	a straight stream of water	foam spray	high-velocity fog	low-velocity fog	

4	1283	B	The liquid-filled PV breaker has acted to relieve a vacuum in a tank. What action must be taken in regards to the PV-breaker before continuing operations?	Check to make certain that it has reset itself.	Refill the breaker with liquid.	Manually reset the vacuum side of the breaker.	Install a new rupture disc.	
4	1284	B	The operating cord on an inflatable liferaft also serves as a _____.	lifeline	painter	drogue	marker	
4	1285	C	You have abandoned ship and find yourself aboard a lifeboat in a heavy sea. Your boat is able to make way through the water. To prevent broaching, you should _____.	put the sea on your stern and run as fast as the boat will go	take no action to prevent broaching as this is a recommended maneuver in a heavy sea	head the boat into the swells to take them at a 30 to 40 degree angle on either bow and run as slow as possible without losing steerage	place everyone as far forward in the boat as possible to keep the bow heavy	
4	1286	A	The inside light in an inflatable liferaft is turned on _____.	automatically as the liferaft inflates	with a switch near the boarding handle	at night because the light has a photosensitive switch	by screwing the bulb in after the raft is inflated	
4	1287	D	When possible, what should be the FIRST step in combating a fire on deck resulting from a cargo overflow or a leaking cargo line?	Blanket the cargo spill with foam.	Prevent the spread of fire with a foam dam.	Apply CO2 on burning fuel at its source.	Shut off the transfer of cargo.	
4	1288	B	Which extinguishing agent is the best for use on electrical fires?	Foam	CO2	Dry chemical	Water fog	
4	1289	A	An undocumented vessel with 10 people aboard and operating 25 miles off the seacoast must carry a survival craft of the _____.	inflatable buoyant apparatus type	buoyant apparatus type	life float type	Any of the above types are acceptable.	
4	1290	B	Which davit type may be operated by one man?	Quadrantal	Gravity	Sheath-screw	Radial	
4	1291	A	The SS AMERICAN MARINER has the following drafts: FWD 09'-00", AFT 15'-11.5". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.	1.82 feet	1.96 feet	2.05 feet	2.17 feet	ST-0033
4	1292	B	What is the MOST important consideration when determining how to fight an electrical fire?	Whether the fire is in machinery or passenger spaces	Danger of shock to personnel	The amount of toxic fumes created by the extinguisher	Maintaining electrical power	
4	1293	A	The SS AMERICAN MARINER has the following drafts: FWD 09'-00", AFT 15'-11". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.	2.62 feet	2.82 feet	2.97 feet	3.15 feet	ST-0034
4	1294	A	According to the "T-Boat" regulations, the permanent marks placed on each side of a vessel forward, aft, and amidships to indicate the maximum allowable draft and trim are called _____.	loading marks	the air draft	depth marks	Plimsoll marks	
4	1295	C	If you must land on a beach with an oar-propelled lifeboat through a heavy surf, the recommended method is to _____.	keep the bow directly in toward the beach, and tow the sea anchor off the stern	ride in on the back of a large breaker	keep the bow into the seas with the sea anchor out over the bow, and row to meet the breaking waves	head directly into the beach by staying between the crests of the waves	

4	1296	A	Hand holds or straps on the underside of an inflatable liferaft are provided _____.	to right the raft if it capsizes	to carry the raft around on deck	for crewmen to hang on to	to hang the raft for drying	
4	1297	D	A small passenger vessel of not more than 65 feet in length must have a collision bulkhead if it _____.	operates on exposed waters	carries more than 49 passengers	is more than 40 feet in length and operates on partially exposed waters	All of the above	
4	1298	A	If a powdered aluminum fire is being fought, the correct extinguishing agent would be _____.	dry powder	water fog	CO2	steam	
4	1299	A	In reviving a person who has been overcome by gas fumes, what would you AVOID doing?	Giving stimulants	Prompt removal of the patient from the suffocating atmosphere	Applying artificial respiration and massage	Keeping the patient warm and comfortable	
4	1300	C	Blocks and falls used as lifeboat gear must be designed with a minimum safety factor of _____.	4, based on the breaking strength	5, based on the maximum allowable stress	6, based on the maximum working load	8, based on the normal working load	
4	1301	D	A vessel to which Annex V to MARPOL 73/78 applies is 24 nautical miles from the nearest land. Which type of garbage is prohibited from being discharged?	Glass	Crockery	Metal	Dunnage	
4	1302	A	A class B fire is most successfully fought by _____.	preventing oxygen from reaching the burning material	cooling the burning material below its ignition temperature	using the extinguishing agent to make the burning material fire-resistant	using the extinguishing agent to absorb the heat	
4	1303	A	According to 46 CFR Subchapter T, where practicable carburetor drip collectors should drain to _____.	the engine air intakes	the fuel tanks	a separate pipe leading to the bilges	a suitable absorbant material	
4	1304	C	The painter of an inflatable liferaft should be _____.	free running on the deck	faked out next to the case	secured to a permanent object on deck	stowed near the raft	
4	1305	B	When backing a motor propelled lifeboat (right-hand propeller) with the rudder amidships, the stern will back _____.	straight	to port	to starboard	None of the above	
4	1306	B	Water pockets on the underside of an inflatable liferaft are for _____.	catching rain water	stability	easy drainage	maneuverability	
4	1307	D	Firefighting foam is only effective when the foam _____.	penetrates to the bottom of the fire	is kept saturated with low velocity water fog	mixes with the burning fuel oil	completely covers the top of the burning liquid	
4	1308	B	What would be the most effective agent to use to extinguish a fire in drums of flammable liquids stowed on the weather deck of a vessel?	Carbon dioxide	Foam	Steam	Water fog	
4	1309	D	On small passenger vessels which type of internal combustion engine carburetor does not require a drip collector?	Updraft	Two barrel	Four barrel	Downdraft	
4	1310	A	Frapping lines are fitted to lifeboat davits to _____.	reduce the swinging of the lifeboat as it is being lowered from the embarkation level	secure the lifeboat in the davits when in the stowed position	hold the lifeboat to the ship's side until the tricing lines are passed	be used as a safety line in an emergency	

4	1311	A	Which statement about pneumatic chipping tools is TRUE?	The operator must wear safety goggles or glasses.	The equipment must be grounded to prevent shock hazard.	The chipping mechanism is made of a non-sparking material that is safe to use near explosive atmospheres.	The needles of the needle-type chipping gun must be replaced when they have been blunted more than 1/2 of their diameter.	
4	1312	B	The best method of extinguishing a class A fire is to _____.	remove oxygen from the area	cool fuel below ignition temperature	smother with CO2	smother fire with foam	
4	1313	D	The SS AMERICAN MARINER is ready to load the cargo listed. There is already 3224 tons of cargo on board with a KG of 29.8 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.	KG 27.2 feet	KG 27.8 feet	KG 28.4 feet	KG 29.0 feet	ST-0035
4	1314	D	Under normal conditions a liferaft is released from its cradle by _____.	cutting the restraining strap	unscrewing the turnbuckle on the back of the cradle	lifting one end of the raft	pushing the plunger on the center of the hydrostatic release	
4	1317	B	The most effective way of applying carbon dioxide from a portable extinguisher to a fire is by _____.	forming a cloud cover over the flames	directing the gas at the base of the flames in a slow sweeping motion	discharging the carbon dioxide into the heart of the flames	bouncing the discharge off an adjacent bulkhead just above the burning surface	
4	1318	A	The most effective fire extinguishing agent to use on burning linen is _____.	water	carbon dioxide	dry chemical	foam	
4	1319	D	Where should muster lists be posted?	In crew's accommodation spaces	On the navigating bridge	In the engine room	All of the above	
4	1320	B	Fire extinguishers on inspected vessels are numbered by size I through V, with I being _____.	used for electrical fires only	the smallest	the most accessible	the most effective	
4	1321	A	How should the lifeboat sea painter be rigged?	Secured to the inboard side of a forward thwart and led inboard of the falls	Spliced into the ring on the stem post	Secured by a toggle to the stem post and led outboard of the falls	Secured by a toggle around the outboard side of a forward thwart	
4	1322	B	How should the lifeboat sea painter be rigged?	Spliced into the ring on the stem post	Secured to the inboard side of a forward thwart and led inboard of the falls	Secured by a toggle to the stem post and led outboard of the falls	Secured by a toggle around the outboard side of a forward thwart	
4	1323	A	How should latitude 51°48.7'S be written when preparing an AMVER report?	5149S	51.8S	0578S	52S	
4	1324	D	A hydrostatic release mechanism for a liferaft _____.	must be wet before it will release	should be kept in a watertight cover except in an emergency	will inflate the raft in its cradle if operated manually	must be submerged to a certain depth to release automatically	
4	1326	D	All inflatable liferafts have _____.	safety straps from the overhead	built in seats	releasing hooks at each end	water stabilizing pockets	
4	1327	A	If you are forced to abandon ship in a liferaft, your course of action should be to _____.	remain in the immediate vicinity	head for the nearest land	head for the closest sea-lanes	let the persons in the boat vote on what to do	
4	1328	D	Any extinguishing agent used on a Class "C" fire must have which important property?	Cooling ability	Leaves no residue	Penetrating power	Nonconductivity	

4	1329	A	The sprinkler system of an enclosed lifeboat is used to _____.	cool the craft in a fire	cool the engine	spray oil on the sea to calm it	spray personnel during a fire	
4	1330	C	How should the lifeboat sea painter be rigged?	Spliced into the ring on the stem post	Secured by a toggle around the outboard side of a forward thwart	Secured to the inboard side of a forward thwart and led inboard of the falls	Secured by a toggle to the stem post and led outboard of the falls	
4	1331	A	A Certificate of Financial Responsibility attests that the vessel _____.	has financial backing to meet any liability resulting from the discharge of oil	has the minimum required amount of P & I and hull insurance	will assume the responsibility for any damage or loss to the shipper	has financial reserves to meet reasonable expected crew costs of an intended voyage	
4	1332	C	An important step in fighting any electrical fire is to _____.	stop ventilation	stop the vessel	de-energize the circuit	apply water to extinguish the fire	
4	1333	D	If you reef a marconi mainsail, the sail area _____.	moves forward and up	moves aft and down	becomes larger	becomes smaller	
4	1334	D	An inflatable liferaft should be manually released from its cradle by _____.	cutting the straps that enclose the container	removing the rubber sealing strip from the container	loosening the turnbuckle on the securing strap	pushing the button on the hydrostatic release	
4	1335	D	What prevents an inflated liferaft from being pulled under by a vessel which sinks in water over 100 feet in depth?	The hydrostatic release	Nothing	A Rottmer release	The weak link in the painter line	
4	1336	C	A feature of an inflatable raft which helps keep people stationary in rough weather is _____.	lashings on the floor of the raft for the passenger's feet	straps from the overhead	lifelines on the inside of the raft	ridges in the floor of the raft	
4	1337	D	It is desirable to have screens on the vents of potable water tanks to _____.	filter the incoming air	prevent explosions	prevent backups	stop insects from entering	
4	1338	D	Regular foam can be used on all but which flammable liquid?	Motor gasoline	Jet fuel	Crude petroleum	Alcohol	
4	1339	B	The static stability curve for a given vessel peaks at 34°. For this ship, the danger angle for a permanent list would be about _____.	8.5°	17°	34°	51°	
4	1340	D	When compared to a high-expansion foam, a low-expansion foam will _____.	be dryer	be lighter	be less heat resistant	not cling to vertical surfaces	
4	1341	A	Persons who have swallowed a non-petroleum based poison are given large quantities of warm soapy water or warm salt water to _____.	induce vomiting	absorb the poison from the blood	neutralize the poison in the blood	increase the digestive process and eliminate the poison	
4	1342	B	If there's a fire aboard your vessel, you should FIRST _____.	notify the Coast Guard	sound the alarm	have passengers put on life preservers	cut off air supply to the fire	
4	1343	B	The SS NORTHLAND is loaded to drafts: FWD 26'-09", AFT 28'-03". The KG is 25.4 feet. Use the salmon pages of the Stability Data Reference Book to determine the angle of list if #6 starboard tank is fully loaded with 1624 tons of salt water ballast (VCG is 36.5 feet off the centerline).	3.0°	4.5°	5.0°	6.5°	
4	1344	A	What is the purpose of the hydrostatic release on an inflatable liferaft?	To release the raft from the cradle automatically as the ship sinks	To inflate the raft automatically	To test the rafts hydrostatically	None of the above	

4	1345	C	An inflatable liferaft can be launched by _____.	the float-free method ONLY	breaking the weak link on the painter	throwing the entire container overboard and then pulling on the operating cord to inflate the raft	removing the securing straps	
4	1346	A	The canopy of an inflatable liferaft should _____.	go into place as the raft is inflated	be put up after everyone is aboard	be put up only in severe weather	be used as a sail if the wind is blowing	
4	1347	A	A quick and rapid motion of a vessel in a seaway is an indication of a(n) _____.	large GM	high center of gravity	excessive free surface	small GZ	
4	1348	D	Dry chemical fire extinguishers are effective on which type(s) of fire?	Burning oil	Electrical	Paint	All of the above	
4	1349	B	What type of liquid is used in the liquid P/V breaker?	Hydraulic oil	Water-antifreeze mixture	Distilled water	Oil from the cargo	
4	1350	C	You are on a supply run to an offshore drilling rig. On board is the cargo listed. What is the height above the main deck of the center of gravity of the cargo?	2.45 feet	1.95 feet	1.05 feet	0.90 foot	ST-0036
4	1351	A	While operating off the coast of Greece, a seaman is injured. What indicator should be in the preamble of a radio telegram asking for medical advice from a Greek station?	RADIO MEDICAL	DH MEDICO	MEDICO ELLAS	MAYDAY	
4	1352	B	If you have a fire in the engine room, your FIRST act should be to _____.	discharge the fixed CO2 system into the engine room	secure the fuel supply and ventilation to the engine room	maneuver your vessel into the wind	have all of your crew get into the liferaft	
4	1353	A	In heavy seas the helmsman should steer the motor lifeboat _____.	into the seas	broadside to the seas	in the same direction as the seas	in a series of figure-eights	
4	1354	C	If the hydrostatic release mechanism for an inflatable liferaft is not periodically serviced and becomes inoperative, it will NOT _____.	set the water lights on immersion	release the dye-marker from the liferaft	free the liferaft from a sinking vessel	break the seal on the carbon dioxide cylinder	
4	1355	B	As a vessel sinks to a depth of 15 feet, the hydrostatic trip releases the liferaft container from its cradle by _____.	breaking the weak link	releasing the tie-down strap	pulling the operating cord	releasing the CO2 canister	
4	1356	A	What is placed on the under side of an inflatable liferaft to help prevent it from being skidded by the wind or overturned?	Water pockets	A keel	Strikes	Sea anchor	
4	1357	A	The SS AMERICAN MARINER is partially loaded with a GM of 2.9 feet and drafts of: FWD 17'-10", AFT 19'-04". Use the white pages of the Stability Data Reference Book to determine what tanks you should ballast to increase the GM to 3.9 feet.	Tanks: DB4, DT6	Tanks: DB3, DB5, DT8	Tanks: DB6, DT7	Tanks: DB2, DT1, DT6	
4	1358	B	Which extinguishing agent is best for use on a magnesium fire?	Water	Sand	CO2	Dry chemical	
4	1359	D	Your vessel has 3 lifeboats on each side. The middle lifeboat on the port side is designated as boat number _____.	2	2 PORT	3	4	
4	1360	B	When lowering a boat with gravity davits, it will be pulled into the embarkation deck by the _____.	falls	tricing pendants	frapping lines	boat hooks	
4	1361	B	What is the minimum diameter allowed for bilge piping on small passenger vessels which are more than 65 feet in length?	1"	1-1/2"	2"	2-1/2"	

4	1362	C	On small passenger vessels, backfire flame arrestors are installed on _____.	all electric motors	turbocharged diesel engines	gasoline engines	both A and C	
4	1363	D	Before entering the chain locker, you should _____.	have someone standing by	make sure there is sufficient air within the locker	de-energize the windlass	All of the above	
4	1364	B	Signaling devices required on inflatable liferafts include a(n) _____.	Very pistol	orange smoke signal	air horn	lantern	
4	1365	C	The most important thing to remember when launching an inflatable liferaft by hand is to _____.	open the CO2 inflation valve	open the raft container	ensure that the operating cord is secured to the vessel	inflate the raft on the vessel, then lower it over the side	
4	1366	D	The air spaces in the floor of an inflatable liferaft will provide protection against _____.	asphyxiation from CO2	loss of air in the sides of the raft	rough seas	cold water temperatures	
4	1367	C	Determine the free surface constant for a fuel oil tank 30 ft. long by 40 ft. wide by 15 ft. deep. The specific gravity of the fuel oil is .85 and the ship is floating in saltwater (S.G. 1.026).	0.83	42.7	3787	4571	
4	1368	D	A fire in electrical equipment should be extinguished by using _____.	salt water	foam	low-velocity fog	CO2	
4	1369	D	A cargo of 50 tons is to be loaded on deck 20 feet from the ship's centerline. The vessel's displacement including the 50 ton cargo will be 3,000 tons and the GM three feet. The list of the vessel after loading this cargo will be _____.	5.35°	5.80°	6.10°	6.35°	
4	1371	D	Which statement about immersion suits is TRUE?	The suit's oil resistance is such that it will be serviceable after exposure to gasoline or mineral spirits.	The suit seals in body heat and provides protection against hypothermia indefinitely.	The suit is flameproof and provides protection to the wearer while swimming through burning oil.	All models will automatically turn an unconscious person face-up in the water.	
4	1372	C	It is necessary to secure the forced ventilation to a compartment where there is a fire to _____.	allow the exhaust fans to remove smoke	extinguish the fire by carbon monoxide smothering	prevent additional oxygen from reaching the fire	protect fire fighting personnel from smoke	
4	1373	C	You are reading draft marks on a vessel. The water level is halfway between the bottom of the number 5 and the top of the number 5. What is the draft of the vessel?	4'-09"	5'-09"	5'-03"	5'-06"	
4	1374	A	Puncture leaks in the lower tubes or bottom of an inflatable liferaft should FIRST be stopped by using _____.	sealing clamps	repair tape	a tube patch	sail twine and vulcanizing kit	
4	1375	D	To launch a liferaft by hand you should _____.	cut the casing bands, throw the liferaft over the side, and it will then inflate	detach the operating cord, throw the raft over the side, and it will then inflate	cut the casing bands, throw the raft over the side, and pull the operating cord	throw the liferaft over the side and pull the operating cord	
4	1376	C	Which distress signal is required for a liferaft in ocean service and could be effectively used to attract the attention of aircraft at night?	The water light	Smoke marker	Red flares	Orange dye marker	
4	1377	C	On a vessel of 34,000 tons displacement, a tank 80 ft. long, 60 ft. wide and 30 ft. deep is half filled with fresh water (SG 1.000) while the vessel is floating in saltwater (SG 1.026). What is the free surface constant for this tank?	2661	2819	40100	42213	

4	1378	A	The most effective cooling agent among those normally used to fight fires is _____.	water fog or spray	chemical foam	mechanical foam	carbon dioxide	
4	1379	B	Which statement about inert gas pressures in a cargo tank is TRUE?	The pressures of the inert gas in the tank may create excessive pressure at the pump while discharging.	Gas pressures should be maintained at the highest permissible level throughout the discharging process.	High gas pressures may cause pyrophoric oxidation in the tank.	High gas pressures may cause loss of suction when stripping.	
4	1380	B	A cargo of 100 tons is to be loaded on deck 20 feet from the ship's centerline. The ship's displacement including the 100 tons of cargo will be 10,000 tons and the GM two feet. The list of the vessel after loading this cargo will be _____.	5.4°	5.7°	5.9°	6.1°	
4	1381	C	Large volumes of carbon dioxide are safe and effective for fighting fires in enclosed spaces, such as in a pumproom, provided that the _____.	persons in the space wear gas masks	persons in the space wear damp cloths over their mouths and nostrils	ventilation system is secured and all persons leave the space	ventilation system is kept operating	
4	1382	A	Ventilation systems connected to a compartment in which a fire is burning are normally closed to prevent the rapid spread of the fire by _____.	convection	conduction	radiation	spontaneous combustion	
4	1383	D	Which statement about entry into a water ballast tank that has been sealed for a long time is TRUE?	A "buddy system" should be used where someone enters the tank with you.	Sea water acts on the ship's metal and generates chlorine gas which may accumulate in poisonous quantities.	You should always wear a gas mask.	After ventilation and testing, and the tank is found safe for entry, someone should stand by at the tank entrance while you are inside.	
4	1384	C	According to 46 CFR Subchapter T, rigid plastic or other nonmetallic piping _____.	may only be used for gasoline fuel piping	may only be used for diesel fuel piping	may not be used for diesel or gasoline fuel piping	may be used for gasoline or diesel fuel piping	
4	1385	D	An inflatable liferaft is hand-launched by _____.	pulling a cord	cutting the wire restraining bands	removing the rubber packing strip	throwing the entire container overboard	
4	1386	C	If the metacentric height is large, a vessel will _____.	be tender	have a slow and easy motion	be stiff	have a tendency to yaw	
4	1387	B	In painting a lifeboat following its overhaul, which parts must be painted bright red?	the top 2-1/2 inches of each side	the releasing gear lever	the fuel tanks	the thwarts	
4	1388	C	Which extinguishing agent will absorb the most heat?	CO2	Foam	Water	Dry chemical	
4	1389	A	Which statement about the inert gas system is TRUE?	Boiler soot blowers should never be used when the IG system is operating.	The boiler will produce the best quality of flue gas for the IG system when the boiler load is very light.	The boiler will produce the most quantity of flue gas for the IG system when the boiler load is very light.	Flue gas with excessive oxygen content is de-oxygenated in the scrubber.	
4	1390	D	Which sequence is correct when launching a lifeboat stowed in gravity davits?	Release gripes, turn on emergency disconnect switch, release frapping lines	Release tricing pennants, turn on emergency disconnect switch, release frapping lines	Operate limit switches, release gripes, lift brake	Release gripes, lift brake, release tricing pennants	
4	1391	D	Halon extinguishes fire primarily by _____.	cooling	smothering	shielding of radiant heat	breaking the chain reaction	

4	1392	C	Except in rare cases, it is impossible to extinguish a shipboard fire by _____.	removing the heat	removing the oxygen	removing the fuel	interrupting the chain reaction	
4	1393	A	You are reading the draft marks. The water level is about 4 inches below the bottom of the number 11. What is the draft?	10'-08"	10'-10"	11'-04"	11'-08"	D032DG
4	1394	C	In each inflatable liferaft, what equipment is provided to make quick, emergency, temporary repairs to large holes in the raft?	No equipment is provided.	Glue and rubber patches	Several various-sized sealing clamps	Self-adhesive rubberized canvas patches	
4	1395	A	After you have thrown the liferaft and stowage container into the water, you inflate the liferaft by _____.	pulling on the painter line	forcing open the container which operates the CO2	hitting the hydrostatic release	using the hand pump provided	
4	1396	B	If you find an inflatable liferaft container with steel bands around the case, you should _____.	tell the Master	leave the bands in place	tell the Mate	remove the bands yourself	
4	1397	C	To reduce mild fever the MOST useful drug is _____.	bicarbonate of soda	paregoric	aspirin	aromatic spirits of ammonia	
4	1398	B	The size of fire hydrant hose connections on a cargo vessel must be either 1-1/2 inches or _____.	1 inch	2-1/2 inches	3 inches	3-1/2 inches	
4	1399	B	How should longitude 116°24.3'W be written when preparing an AMVER report?	116°24.3W	11624W	116.4W	116W	
4	1400	A	In rough weather, when a ship is able to maneuver, it is best to launch a lifeboat _____.	on the lee side	on the windward side	with the wind dead ahead	with the wind from astern	
4	1401	B	Which statement about transmitting distress messages by radiotelephone is INCORRECT?	Distress messages should first be transmitted on 2182 kHz.	It is advisable to follow a distress message on 2182 kHz by two dashes of 10 to 15 seconds duration.	If no answer is received on the designated distress frequencies, repeat the distress call on any frequency available.	Channel 16 (156.8 MHz) may be used for distress messages.	
4	1402	A	When using carbon dioxide to fight a fire on a bulkhead, the CO2 should be applied _____.	first to the bottom of the flaming area, sweeping from side to side, and following the flames upward	in a circular motion from the middle of the bulkhead outward	to the top of the flaming area, sweeping from side to side, and working toward the bottom	in an up-and-down motion from one side of the bulkhead to the other	
4	1403	C	Which action must be taken when an individual cargo tank is closed off from the inert gas system by the tank isolation valve?	The tank must be gas freed.	The tank must be ballasted.	The tank must be vented to the atmosphere.	The bypass valve must also be closed.	
4	1404	C	Signaling devices which are required on inflatable liferafts include _____.	a rocket shoulder rifle	an oil lantern	red flares	an air horn	
4	1405	A	When launching an inflatable liferaft, you should make sure that the operating cord is _____.	fastened to some substantial part of the vessel	not fastened to anything	secured to the hydrostatic release	fastened to the raft container	
4	1406	D	The principal danger from ice collecting on a vessel is the_____.	decrease in capabilities of radar	decrease in displacement	adverse effect on trim	loss of stability	
4	1407	D	You are in a lifeboat when you sight the stars shown. You will be heading due north when you head for Polaris which is indicated by what letter?	C	D	E	F	D007SA
4	1408	A	What is NOT a characteristic of carbon dioxide fire-extinguishing agents?	Effective even if ventilation is not shut down	Will not deteriorate in storage	Non-corrosive	Effective on electrical equipment	

4	1409	D	The SS AMERICAN MARINER has the following drafts: FWD 08'-04", AFT 16'-08". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.	1.91 feet	2.09 feet	2.21 feet	2.48 feet	ST-0037
4	1410	A	Which statement about immersion suits is TRUE?	Prior to abandonment, the suit allows body movement such as walking, climbing a ladder and picking up small objects.	The immersion suit seals in body heat and provides protection against hypothermia for weeks.	The suit is flameproof and provides protection to the wearer while swimming through burning oil.	The wearer of the suit is severely restricted in body movement, and the suit should not be donned until abandonment is imminent.	
4	1411	A	Which statement about entry into a space that has been sealed for a long time is TRUE?	A tank that has been used to carry hazardous liquids should be tested for oxygen content, toxicity, and explosive gases.	You can safely enter the space without a breathing apparatus if the oxygen content exceeds 14%.	The natural ventilation through the installed vents is sufficient to provide the proper oxygen content.	The heat of the sun on upper ballast tanks, such as in a bulk carrier, may generate carbon monoxide.	
4	1412	D	By regulation, cargo tank atmosphere must be inert before and during which operation?	Stripping	Loading	Cleaning	All of the above	
4	1413	B	Your vessel is damaged, and there is no list or trim. The rolling period is short. The freeboard before the damage was 12'02" (3.7 meters). It is now reduced to 3'00"(1 meter). Which action would you take FIRST?	Press up a slack centerline double bottom tank	Pump out an amidships centerline ballast tank	Transfer ballast from the peak tanks to an amidships centerline tank	Pump out the marine potable tank located on the starboard side amidships	
4	1414	B	What should be used to steer an open lifeboat if the rudder becomes lost or damaged?	Sea anchor	Steering oar	Spare rudder	Daggerboard	
4	1415	A	You are reading the draft marks in illustration D032DG. The water level forward is at the top of the 8, and the mean water level aft is at the top of the 8. What is the mean draft?	8'06"	8'03"	8'00"	7'06"	
4	1416	B	You will extinguish a fire when you remove _____.	nitrogen	oxygen	sodium	carbon dioxide	
4	1417	C	A vessel is "listed" when it is _____.	down by the head	down by the stern	inclined due to off-center weight	inclined due to wind	
4	1418	C	Which is the MOST important consideration for a tank vessel?	GM	The longitudinal center of gravity	The stress on the hull	The vertical center of gravity	
4	1419	B	Your vessel is listing 4° to port and has a short rolling period. There is loose firefighting water in the hull. The ship is trimmed down by the head with one foot of freeboard at the bow. Which action should you take FIRST?	Press up the slack NO.1 starboard double bottom tank.	Pump out the forepeak tank.	Eliminate the water in the 'tween decks aft.	Jettison stores out of the paint locker in the fo'c'sle.	
4	1420	B	Which statement about the pressure in a tank being inerted by an inert gas system is TRUE?	The maximum pressure permitted is 8 psi.	A positive pressure should be maintained at all times.	The pressure must remain within the limits of +5 psi to -1 psi.	None of the above	
4	1421	D	The control lever for the mechanical disengaging apparatus in a lifeboat shall _____.	be painted bright red	be secured to a permanent part of the lifeboat structure	have the area surrounding the lever painted white	All of the above	

4	1422	B	Mechanical gearing of deck machinery such as the windlass or boat hoists should _____.	be open to view so, if a foreign object gets in the gearing, the operator can immediately stop the machinery	have a guard over the gearing	be painted a contrasting color from the base color in order to call attention to the gearing	not be operated if there is any crew within 10 feet of the machinery	
4	1423	C	A weight of 250 tons is loaded on your vessel 95 feet forward of the tipping center. The vessel's MT1 is 1000 ft-tons. What is the total change of trim?	11.90 inches	18.75 inches	23.75 inches	38.01 inches	
4	1424	A	Halon gas will decompose and may form very hazardous toxic fumes when discharged _____.	directly on flames	at room temperature	in an extremely cold climate	None of the above	
4	1425	C	Which advantage does dry chemical have over carbon dioxide (CO2) in firefighting?	Compatible with all foam agents	Cleaner	More protective against re-flash	All of the above	
4	1426	C	A vessel aground may have negative GM since the _____.	decrease in KM is equal to the loss of draft	virtual rise of G is directly proportional to the remaining draft	displacement lost acts at the point where the ship is aground	lost buoyancy method is used to calculate KM, and KB is reduced	
4	1427	B	You are in a lifeboat when you sight the stars as shown. You will be heading due north when you head for Polaris which is indicated by which letter?	E	F	G	H	D007SA
4	1428	D	A Halon 1301 cylinder contains 100 pounds of liquid at 360 psi. It must be recharged when the pressure drops below how many psi?	360	352	336	324	
4	1429	A	When collecting condensation for drinking water, _____.	a sponge used to mop up and store condensation must be kept salt free	only condensation on the bottom of the canopy should be collected	it should be strained through a finely woven cloth	chlorine tablets should be used to make it drinkable	
4	1430	A	The SS AMERICAN MARINER is ready to load the cargo listed. There is already 6422 tons of cargo on board with a KG of 26.6 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.	KG 24.9 feet	KG 25.5 feet	KG 26.1 feet	KG 28.9 feet	ST-0038
4	1431	B	Which statement is FALSE regarding Halon 1301?	It is colorless.	It is sweet smelling.	It may cause dizziness when inhaled.	It does not conduct electricity.	
4	1432	B	You are reading the draft marks. The top 2 inches of the 9 forward is visible above the water level, and the water level is four inches below the 10 aft. What is the mean draft?	9'-10"	9'-06"	9'-04"	9'-02"	D032DG
4	1433	B	You should NOT use a power tool if _____.	it has a three-prong plug	the insulation of the power wires is worn	hand tools can be used instead	the power source is alternating current	
4	1434	D	Halon fire extinguishers are NOT effective when used on which types of fires?	Fires in electrical equipment	Flammable oils and greases	Class "A" fires in ordinary combustibles	Materials containing their own oxygen	
4	1435	B	After the initial cleaning of flue gas in an inert gas system the gas is passed through what device for final cleaning?	Scrubber	Demister	Deck water seal	Final filter	
4	1436	C	Your vessel's draft is 16'-00" fwd. and 18'-00" aft. The MT1 is 500 ft-tons. How many tons of water must be shifted from the after peak to the forepeak, a distance of 250 feet, to bring her to an even draft forward and aft?	52 tons	50 tons	48 tons	24 tons	

4	1437	A	You are in a lifeboat when you sight the stars. You will be heading due north when you head for Polaris which is indicated by which letter?	F	G	J	K	D007SA
4	1439	C	Safety goggles or glasses are NOT normally worn when _____.	using a rotary grinder with an installed shield	letting go the anchor	handling wire rope or natural fiber line	painting with a spray gun	
4	1440	A	A ship is inclined by moving a weight of 30 tons a distance of 30 ft. from the centerline. A 28-foot pendulum shows a deflection of 12 inches. Displacement including weight moved is 4,000 tons. KM is 27.64 feet. What is the KG?	21.34 feet	22.06 feet	22.76 feet	23.21 feet	
4	1441	B	On small passenger vessels, how many supply and exhaust ducts are required in each enclosed space containing gasoline powered machinery or gasoline fuel tanks?	1 of each	2 of each	3 of each	4 of each	
4	1442	D	If the cause of severe list or trim is off-center ballast, counterflooding into empty tanks will _____.	increase the righting moment	increase the righting arm	increase list or trim	decrease list or trim	
4	1443	D	When jumping into water upon which there is an oil-fire, you should _____.	break the water surface with your hands when diving head-first	use your hands to hold your knees to your chest	cover your eyes with one hand while pinching your nose shut and covering your mouth with the other	enter the water at the bow or stern on the windward side of the vessel	
4	1444	A	A stored-pressure water extinguisher is most effective against fires of class _____.	A	B	C	D	
4	1445	B	When instructing a crew member concerning the right way to lift a weight, you would instruct him to _____.	arch the back to add strength to the muscles	bend his knees and lift with his legs	bend his back and stoop	bend his back and stoop with arms straight	
4	1446	C	A vessel's mean draft is 29'-07". At this draft, the TPI is 152. The mean draft after loading 1360 tons will be _____.	29'-09"	29'-11"	30'-04"	30'-07"	
4	1447	B	Why is carbon dioxide (CO_2) better than dry chemical for fighting a class "C" fire?	The dry chemical is a conductor.	The dry chemical leaves a residue.	CO_2 will not dissipate in air.	It takes smaller amounts of CO_2 to cover the same area.	
4	1448	B	After making the required notification that a large oil spill into the water has occurred, the FIRST action should be to _____.	apply straw or sawdust on the oil	contain the spread of the oil	throw grains of sand into the oil	have the vessel move out of the spill area	
4	1449	A	A vessel to which Annex V to MARPOL 73/78 applies is located 10 nautical miles from the nearest land. Which type of garbage is prohibited from being discharged?	Food waste, not comminuted or ground	Rags ground to less than 1"	Paper ground to less than 1"	None of the above	
4	1450	D	When a vessel is stationary and in a hogging condition, the main deck is under _____.	compression stress	racking stress	shear stress	tension stress	
4	1451	C	Before counterflooding to correct a list, you must be sure the list is due to _____.	negative GM	flooding	off-center weight	reserve buoyancy	
4	1452	C	First aid means _____.	medical treatment of accident	setting of broken bones	emergency treatment at the scene of the injury	dosage of medications	

4	1453	A	The hoods over galley ranges present what major hazard?	Grease collects in the duct and filter and if it catches fire is difficult to extinguish.	In order to effectively draw off cooking heat they present a head-injury hazard to a person of average or more height.	They inhibit the effective operation of fire fighting systems in combating deep fat fryer or range fires.	They concentrate the heat of cooking and may raise surrounding flammable material to the ignition point.	
4	1454	C	You are in a lifeboat when you sight the stars indicated in illustration D005SA. You will be heading due north when you head for Polaris which is indicated by what letter?	A	C	E	I	D005SA
4	1455	D	Which statement about AMVER reports is TRUE?	The sailing plan may be sent in any reasonable time before departure, but not later than 12 hours after departure.	Distress messages should be sent to the AMVER center.	In the body of the sailing plan report, the letter G is used to indicate a great circle course.	There are four different message reports in the AMVER system.	
4	1456	B	You are reading the draft marks. The water level is at the bottom of number 11. What is the draft?	11'-06"	11'-00"	10'-09"	10'-06"	D032DG
4	1457	D	When choosing extinguishers to fight a Class "B" fire do NOT use _____.	carbon dioxide	dry chemical	foam (stored-pressure type)	water (cartridge-operated)	
4	1458	D	Your vessel displaces 14,500 tons, with a longitudinal CG 247.5 ft. aft of the FP. If you pump 80 tons of ballast from forward to aft through a distance of 480 feet, your new CG will be _____.	244.85 feet aft of FP	246.22 feet aft of FP	248.87 feet aft of FP	250.15 feet aft of FP	
4	1459	C	Which data is NOT painted on the bow of a lifeboat?	Number of persons allowed	Name of the vessel	Weight of the boat	Port of registry	
4	1461	A	You are in a lifeboat when you sight the stars shown. You will be heading due north when you head for Polaris which is indicated by what letter?	E	F	H	I	D005SA
4	1462	C	When authorized to use chemical agents on an oil spill they would _____.	absorb the oil for easy removal	dissolve the oil in the water	facilitate the removal of the pollutant from the water	sink the oil	
4	1463	B	To prevent the spread of fire by convection you should _____.	cool the bulkhead around the fire	close all openings to the area	shut off all electrical power	remove combustibles from direct exposure	
4	1464	B	What is NOT a function of the air supply of a covered lifeboat?	Provides air for engine combustion	Pressurizes water spray system	Provides air for passenger respiration	Prevents smoke and other noxious fumes from entering craft	
4	1466	D	You used a carbon dioxide (CO2) fire extinguisher but did not empty the extinguisher. You must have it recharged if the weight loss exceeds _____.	one percent of the weight of the charge	five percent of the weight of the charge	seven percent of the weight of the charge	ten percent of the weight of the charge	
4	1467	B	Your vessel has a forward draft of 26'-11" and an after draft of 29'-07". How many tons of cargo can be loaded before the vessel reaches a mean draft of 28'-06" if the TPI is 69?	204 tons	207 tons	210 tons	213 tons	

4	1468	C	You are on the SS American Mariner and involved in a collision. Your draft has increased uniformly and there is about 4 feet of freeboard remaining. The vessel is on an even keel and has a long rolling period. The roll is sluggish, and the vessel hangs at the ends of a roll. Which of the following actions would you take first to correct the situation?	Pump out a slack double bottom tank to reduce free surface.	Flood any empty double bottom tanks to decrease KG.	Jettison topside weights to increase freeboard.	Pump out flooding water in the cargo holds to reduce free surface.	
4	1469	B	Which statement about immersion suits is TRUE?	The primary color of the suit's exterior may be red, orange or yellow.	All models will automatically turn an unconscious person face-up in the water.	The suit is flameproof and provides protection to a wearer swimming in burning oil.	The suit may be stored in a machinery space where the ambient temperature is 160°F.	
4	1470	B	If your vessel has a list to port due to negative GM and off-center weight, the first corrective measure you should take is to _____.	move port-side main-deck cargo to the starboard side	fill the starboard double-bottom	pump water from the port double-bottom to the starboard double-bottom	pump water from the port double-bottom over the side	
4	1471	A	What do regulations allow to be marked with EITHER the name of the fishing vessel OR the name of the person to whom it is assigned?	Immersion suit	Buoyant apparatus	Ring buoy	Life float	
4	1472	D	You are reading the draft marks in illustration D032DG. The water level forward is 4 inches below the 11, and the water level aft is 2 inches below the top of the 11. What is the mean draft?	11'-08"	11'-06"	11'-04"	11'-00"	D032DG
4	1473	D	You are in a lifeboat when you sight the stars as shown. You will be heading due north when you head for Polaris which is indicated by which letter?	A	B	D	E	D005SA
4	1474	C	In cleaning up an oil spill, straw is an example of a _____.	chemical agent	blocker	sorbent	None of the above	
4	1475	C	You need to pull the sea anchor back aboard your liferaft. What part of the anchor do you pull on?	Drag line	Bridle	Trip line	Iron ring	
4	1476	B	Your vessel has 3 lifeboats on each side. The aftermost boat on the starboard side is designated as boat number _____.	6	5	3	3 STARBOARD	
4	1477	B	A fire starts on your vessel while refueling. You should FIRST _____.	stop the ventilation	sound the general alarm	determine the source of the fire	attempt to extinguish the fire	
4	1478	C	There is a fire in the crew's quarters of your vessel. You should _____.	ventilate the quarters as much as possible	prepare to abandon ship	close all ventilation to the quarters if possible	attempt to put the fire out yourself before sounding the alarm	
4	1479	A	If your vessel is aground at the bow, it would be preferable that any weight removals be made from the _____.	bow	mid-section	stern	All of the above	
4	1480	D	You are on a supply run to an offshore drilling rig. On board is the cargo listed. What is the height above the main deck of the center of gravity of the cargo?	2.23 feet	1.93 feet	1.82 feet	1.38 feet	ST-0039
4	1481	D	You are reading the draft marks in illustration D032DG. The water level is at the top of number 8. What is the draft?	7'-09"	8'-00"	8'-03"	8'-06"	D032DG

4	1483	B	The SS AMERICAN MARINER is partially loaded with a GM of 3.1 feet and drafts of: FWD 19'-06", AFT 21'-04". Use the white pages of the Stability Data Reference Book to determine what tank(s) you should ballast to increase the GM to 3.7 feet.	Tanks: DT1	Tanks: DB3, DT8	Tanks: DB2, DB7	Tanks: DB5	
4	1484	D	The SS AMERICAN MARINER is partially loaded with a GM of 3.1 feet and drafts of: FWD 16'-00", AFT 18'-04". Use the white pages of the Stability Data Reference Book to determine what tank(s) you should ballast to increase the GM to 3.6 feet.	Tanks: DB1, DT1A	Tanks: DT6, DT7	Tank: DT8	Tank: DB3	
4	1485	A	Which statement about immersion suits is TRUE?	All models will automatically turn an unconscious person face-up in the water.	The immersion suit seals in body heat and provides protection against hypothermia for weeks.	The suit will still be serviceable after a brief (2-6 minutes) exposure to flame and burning.	The collar must be inflated before abandoning ship.	
4	1486	A	A cargo of 30 tons is to be loaded on deck 30 feet from the ship's centerline. The ship's displacement including the 30 tons cargo will be 9,000 tons and the GM will be 5 feet. The list of the vessel after loading this cargo will be _____.	1.14°	2.05°	2.31°	3.40°	
4	1487	B	A vessel's heavy displacement is 24,500 tons with light displacement of 13,300 tons. Fully loaded it carries 300 tons of fuel and stores. What is the vessel's deadweight?	10,900 tons	11,200 tons	13,000 tons	24,200 tons	
4	1488	C	When compared to a high-expansion foam, a low-expansion foam will _____.	be dryer	be lighter	be more heat resistant	cling to vertical surfaces	
4	1489	A	The boat command that means complete the stroke and level the oars horizontally with the blades trimmed fore and aft is _____.	"Oars"	"Up oars"	"Way enough"	"Hold water"	
4	1490	C	You are reading the draft marks as shown. The water level forward leaves about 4 inches of the 11 visible, and the water level aft is at the top of the 10. What is the mean draft?	10'-06"	10'-08"	10'-10"	11'-02"	D032DG
4	1491	A	You are in a lifeboat when you sight the stars shown. You will be heading almost due north when you head for Polaris which is marked by what letter?	C	D	E	G	D006SA
4	1492	D	You have abandoned ship. There are several rafts in the water. One of the FIRST things to do is _____.	separate the rafts as much as possible to increase chances of detection	transfer all supplies to one raft	transfer all the injured to one raft	secure the rafts together to keep them from drifting apart	
4	1493	A	A new liferaft has been installed on your vessel. The operating cord should be _____.	attached to the raft stowage cradle or to a secure object nearby with a weak link	checked to see that it's unattached	coiled neatly on the raft container	faked on deck and lead through a chock	
4	1494	A	Your vessel has 3 lifeboats on each side. The aftermost boat on the port side is designated as boat number _____.	6	5	3	3 PORT	

4	1495	C	A weight of 350 tons is loaded on your vessel 85 feet forward of the tipping center. The vessel's MT1 is 1150 foot-tons. What is the total change of trim?	12.93 inches	23.75 inches	25.87 inches	38.50 inches	
4	1496	D	Your vessel has been holed in #1 hold and partially flooded. The hole is plugged against further flooding. In calculating the effect of the flooding on your transverse stability, you should use which method?	Compartment standard method	Lost buoyancy method	Factor of subdivision method	Added weight method	
4	1497	B	While operating off Panama a seaman is injured. What indicator should be included in the preamble of a radio telegram requesting medical advice from a Panamanian station?	RADIO MEDICAL	DH MEDICO	XXX	MEDRAD	
4	1498	A	The spread of fire is prevented by _____.	cooling surfaces adjacent to the fire	leaving combustibles in the endangered area	increasing the oxygen supply	All of the above	
4	1499	B	A cargo of 60 tons is to be loaded on deck 20 feet from the ship's centerline. The vessel's displacement including the 60 ton cargo will be 6,000 tons and the GM two feet. The list of the vessel after loading this cargo will be _____.	5.4°	5.72°	6.12°	6.4°	
4	1500	C	The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.	Available GM 6.9 ft	Available GM 5.3 ft	Available GM 4.1 ft	Available GM 3.8 ft	ST-0040
4	1501	B	You are in a lifeboat when you sight the stars shown. You will be heading almost due north when you head for Polaris which is marked by which letter?	B	C	F	H	D006SA
4	1502	B	A portable foam (stored-pressure type) fire extinguisher would be most useful in combating a fire in _____.	generators	oil drums	the bridge controls	combustible metals	
4	1503	D	If you have to jump in the water when abandoning ship, your legs should be _____.	spread apart as far as possible	held as tightly against your chest as possible	in a kneeling position	extended straight down and crossed at the ankles	
4	1504	C	You are reading the draft marks in illustration D032DG. The water level is about 4 inches below the bottom of 10. What is the draft?	10'-04"	10'-02"	9'-08"	9'-04"	D032DG
4	1505	D	What is one of the FIRST things you would do on boarding an inflatable liferaft?	Open equipment pack.	Post a lookout.	Issue anti-seasickness medicine.	Pick up other survivors.	
4	1506	C	Before hydraulic starting of an engine on a covered lifeboat, what need NOT be checked?	Fuel supply line valve	Pressure registered on the accumulator gauge	Cold-spark voltage readings test lamp	Engine stop control	
4	1507	D	A thrust block is designed to _____.	absorb the shock of wave pressure at the bow	be placed between the engines and the foundation to absorb the vibration	transmit the thrust of the engine to the propeller	transmit the thrust of the propeller to the vessel	
4	1508	A	Portable foam fire-extinguishers are designed for use on class _____.	A and class B fires	A and class C fires	B and class C fires	A, class B, and class C fires	
4	1509	C	You are using an oxygen indicator. How long should you wait after the sample is drawn into the instrument before reading the meter?	No wait is necessary, the reading occurs immediately.	At least 5 seconds	At least 10 seconds	At least 20 seconds	

4	1510	D	You are in enemy port and have received a General Emergency message announcing the outbreak of war in Europe. You are directed to comply with the instructions in NGA (NIMA) PUB 117, Chapter eight. Which statement is TRUE?	If on a coastwise voyage along the east coast of the U.S., you should put into the nearest port.	You should only enter a port in the danger zone during hours of darkness.	When over 200 hundred miles from a port in the danger zone, you should not darken ship.	You should attempt to submit an AMVER report to NSA.	
4	1511	B	Which step should normally be taken FIRST by those who have boarded a liferaft in an emergency?	Ration food and water supplies.	Take anti-seasickness pills, if available.	Determine position and closest point of land.	Check pyrotechnic supplies.	
4	1512	D	Where are the draft marks required to be displayed on a ship?	Deep tanks	Voids	Midships near the waterline	Area of water line near stem and stern	
4	1513	D	Limit switches, winches, falls, etc. must be thoroughly inspected at least every _____.	2 months	4 months	6 months	year	
4	1514	A	"Thermal protective aids" are required for what percentage of the persons a survival craft is equipped to carry?	10%	50%	75%	100%	
4	1515	A	You see an iceberg that has not been reported. What kind of radio message do you transmit to warn others?	Safety message	Urgency message	Distress message	Routine message	
4	1516	C	While operating off the coast of Portugal, a seaman is injured. What indicator should be used in a message requesting medical advice from a Portuguese station?	MEDICAL RADIO	DH MEDICO	XXX RADIOMEDICAL	PORT HEALTH	
4	1517	C	A double male coupling is one that _____.	has left hand twist	has inside threads on both ends	has outside threads on both ends	takes two men to operate	
4	1518	A	You are approaching another vessel and see that she has the signal flag "J" hoisted. What should you do?	Keep well clear of the vessel because she is on fire and has dangerous cargo on board or she is leaking dangerous cargo.	Attempt to call the vessel on VHF radiotelephone because she is requesting to communicate.	Approach the vessel with caution because she is dragging her anchor.	Proceed on present course and speed since the vessel is requesting a tug.	
4	1519	B	All oil spills must be reported to the _____.	U.S. Corps of Engineers	U.S. Coast Guard	local police	local fire department	
4	1520	B	When operating the air supply system in a covered lifeboat the _____.	fuel supply valve should be closed	hatches, doors, and oar ports should be closed	air cylinder shut-off valve should be closed	engine should be shut off	
4	1521	C	You are in a lifeboat when you sight the stars shown. You will be heading almost due north when you head for Polaris which is marked by what letter?	A	B	C	D	D006SA
4	1522	D	The pollution prevention regulations in MARPOL apply to U. S. flag vessels _____.	only on the Great Lakes and international waters	only on the western rivers and international waters	only on international voyages outside U.S. territorial waters	on all international and inland waters	
4	1523	D	The term "oil" as used in the Oil Pollution Regulations means _____.	fuel oil	sludge	oil refuse	All of the above	
4	1524	D	A U.S. merchant vessel in ocean service is NOT subject to the requirements of Annex V to MARPOL 73/78 _____.	outside of 25 nautical miles from nearest land	outside of the navigable waters of the United States	in the waters of those countries not signatory to MARPOL	A U.S. vessel in ocean service is ALWAYS subject to MARPOL.	
4	1525	C	You are reading the draft marks. The top 2 inches of number "9" are visible above the waterline. What is the draft?	8'-10"	9'-02"	9'-04"	9'-08"	D032DG
4	1526	C	Which type of portable fire extinguishers is NOT designed for use on flammable liquid fires?	Foam	Dry chemical	Water (cartridge-operated)	Carbon dioxide	

4	1527	C	You discharge garbage overboard at sea. When recording your vessel's position as required, you must include _____.	latitude, longitude and approximate depth of water	latitude, longitude, course, speed, and a copy of that days noon position slip	latitude, longitude, and estimated distance from shore	latitude and longitude only	
4	1528	C	You are offloading garbage to another ship. Your records must identify that ship by name and show her _____.	home port	next port-of-call	official number	Master	
4	1529	D	Under the Pollution Regulations, garbage disposal records must be kept _____.	until the end of the voyage	until the next Coast Guard inspection	one year	two years	
4	1530	D	Which vessel in ocean service is not subject to Annex V of MARPOL 73/78?	A 20-foot sailing vessel	A 26-foot tug and tow	An uninspected 35-foot passenger vessel	A Navy Destroyer	
4	1531	B	You intend to discharge medical or hazardous wastes ashore. MARPOL Annex V requires you to notify a receiving port or terminal in advance. How much advance notice is required?	12 hours	24 hours	48 hours	Advance notification is not required.	
4	1532	B	You are in a lifeboat when you sight the stars shown. You will be heading due north when you head for Polaris, which is indicated by which letter?	A	E	G	H	D005SA
4	1533	D	Which statement is TRUE?	You need not keep a record of ground garbage dumped into the sea more than 25 miles offshore.	You need not keep a record of garbage incinerated on the ship.	You must keep a record of the approximate weight of the garbage dumped.	You must keep a record of garbage discharged in port to a shore facility.	
4	1534	A	Which statement is TRUE?	You must keep a record of garbage discharged in port to a shore facility.	You need not keep a record of dumping ground garbage in to the sea more than 25 miles offshore.	You must keep a record of the approximate weight of the garbage dumped.	You need not keep a record of garbage incinerated on the ship.	
4	1535	C	Limit switches _____.	control the descent rate of a lifeboat	control the ascent rate of a lifeboat	cut off power to the winch when the lifeboat nears the final stowed position	cut off power to the winch when the lifeboat reaches the davit bumpers	
4	1536	D	Which types of portable fire extinguishers are designed for putting out electrical fires?	Foam and water (stored pressure)	Foam and carbon dioxide	Foam and dry chemical	Dry chemical and carbon dioxide	
4	1537	D	How should longitude 119°56.3'W be written when preparing an AMVER report?	V19.9	120°W	119.9W	11956W	
4	1538	A	Your oceangoing vessel is required to have a waste management plan. This plan must be in writing and describe procedures for _____.	collecting and discharging garbage	disposing waste from marine sanitation devices	reducing the amount of shipboard waste	segregating the different types of shipboard waste	
4	1539	D	The AMVER system requires _____.	sailing plans to be sent before departure	more frequent reports in heavy weather	arrival reports to be sent within 8 hours of arrival	a position report within 24 hours of departure	
4	1540	A	Which statement concerning the sources of drinking water is FALSE?	Fresh water may be obtained from fish.	Lifeboat covers or canopies should be washed with rain before drinking water is collected.	Fresh water may be collected from condensation inside the liferaft.	Seawater should never be consumed.	
4	1541	D	Which would be considered pollution under the U.S. water pollution laws?	Garbage	Hazardous substances	Oil	All of the above	

4	1542	C	The SS AMERICAN MARINER has the following drafts: FWD 09'-10", AFT 15'-08". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.	1.91 feet	2.09 feet	2.21 feet	2.48 feet	ST-0041
4	1543	C	The ship station license for your radiotelephone is valid for _____.	one year	two years	ten years	the life of the vessel	
4	1544	D	While operating your oceangoing vessel you must keep a record of any discharge or disposal of garbage. These entries shall be made _____.	before the end of the voyage	before arriving at your next port	no later than 24 hours after disposal of the garbage	at the time the garbage was disposed	
4	1545	D	Preventer bars are fitted on lifeboat releasing hooks to prevent _____.	the falls from unhooking if the releasing gear is operated accidentally while the boat is being lowered	operation of the release lever until the boat is waterborne	the falls from rehooking after they have been released	accidental unhooking when the falls become slack	
4	1546	B	What are the most important reasons for using water fog to fight fires?	Smothers burning surfaces, organically destroys fuel	Cools fire and adjacent surfaces, provides protective barrier	Reaches areas not protected by steam or CO2 smothering systems	Allows fire to be attacked from leeward, saturates liquid surfaces	
4	1547	C	If you must swim through an oil fire, you should NOT _____.	wear as much clothing as possible	enter the water feet first	swim with the wind	cover eyes with one hand when entering the water	
4	1548	D	You have abandoned your vessel. You are in a liferaft and have cleared away from your vessel. One of your FIRST actions should be to _____.	take measures to maintain morale	prepare and use radio equipment	identify the person in charge of liferaft	search for survivors	
4	1549	C	You are sailing in a strong wind and may accidentally jibe when _____.	reaching	tacking	running-free	in irons	
4	1550	B	The purpose of a water spray system on a covered lifeboat is to _____.	cool the lifeboat engine	keep the lifeboat from reaching combustion temperature while operating in a fire	keep the lifeboat warm in a cold climate by applying heated water spray from the engine to the boat	put out a fire inside the lifeboat	
4	1551	A	On inspected cargo vessels, each fire station is required to be fitted with a hose which has a nominal diameter of _____.	1-1/2 or 2-1/2 inches	2 or 3 inches	2-1/2 or 3-1/2 inches	3 or 4 inches	
4	1552	A	INTERNATIONAL AND INLAND A sailing vessel must keep course and speed when _____.	being overtaken	to windward of another sailing vessel	to leeward of another sailing vessel	crossing a vessel engaged in fishing	
4	1553	B	What is an advantage of using foam in fire fighting?	It is effective in controlling fire in flowing oil such as coming from a broken fuel line.	It absorbs heat from materials that could cause reignition.	Most foams can be used jointly with dry chemical extinguishing agents to attack a fire by two methods of extinguishment.	Once the surface is blanketed with foam and the fire is extinguished, no further foam is required.	

4	1554	C	The SS NORTHLAND is loaded to drafts: FWD 32'-04", AFT 34'-02". The KG is 31.5 feet. Use the salmon pages of the Stability Data Reference Book to determine the angle of list if #6 starboard tank is fully loaded with 1624 tons of salt water ballast (VCG is 36.5 feet off the centerline).	3.4°	4.7°	6.4°	7.9°	
4	1555	D	Seawater may be used for drinking _____.	at a maximum rate of two ounces per day	after mixing with an equal quantity of fresh water	if gathered during or immediately after a hard rain	under no conditions	
4	1556	A	Which fire extinguishing agent has the greatest capacity for absorbing heat?	Water	Foam	Dry chemical	Carbon Dioxide	
4	1557	B	When a sea anchor for a lifeboat is properly rigged, it will _____.	completely stop the lifeboat from drifting	help to prevent broaching	prevent the lifeboat from pitching	None of the above	
4	1558	C	A Halon 1301 cylinder is periodically tested for weight loss and pressure loss. What minimum percentage of the full pressure can be lost before the cylinder must be recharged?	3%	5%	10%	15%	
4	1560	C	The most important reason for taking anti-seasickness pills as soon as possible after entering a liferaft is to _____.	assist in sleeping	reduce appetite by decreasing nausea	prevent loss of body moisture by vomiting	prevent impaired judgment due to motion-induced deliriousness	
4	1561	B	Which is NOT a mandatory part of the shipboard Oil Pollution Emergency Plan?	Reporting requirements	Diagrams	Steps to control a discharge	National and local coordination	
4	1562	D	Drinking salt water will _____.	protect against heat camps	prevent seasickness	be safe if mixed with fresh water	dehydrate you	
4	1563	B	Who should inspect and test an inflatable liferaft?	The person in charge	An approved servicing facility	Shipyard personnel	A certificated lifeboatman	
4	1564	A	Which action is routinely performed at the annual servicing and inspection of a dry-chemical cartridge-operated portable fire extinguisher?	Insure the chemical is powdery.	Replace the cartridge.	Pressure test the discharge hose.	Test the pressure gauge for proper operation.	
4	1565	A	What correctly expresses the time of 1122 (ZD +6) on 6 April 1981, for use in an AMVER report?	061722Z	06 1122 ZD+6	G1722 06APR81	1122Z6 06APR	
4	1566	B	CO2 extinguishes a fire by _____.	cooling	smothering	chemical action	All of the above	
4	1567	B	Your vessel is carrying 84,000 barrels of oil for discharge. The cargo hoses have an inside diameter of 14 inches. When four hoses are connected to the manifold, the container around the manifold must hold a total of how many barrels?	Three	Four	Twelve	Sixteen	
4	1568	C	The SS AMERICAN MARINER is ready to load the cargo listed. There is already 2464 tons of cargo on board with a KG of 27.3 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.	KG 27.0 feet	KG 27.8 feet	KG 28.6 feet	KG 29.8 feet	ST-0042
4	1569	D	Which list is NOT required to be provided as part of the appendices of the Shipboard Oil Pollution Emergency Plan?	A list of agencies or officials of Coastal State Administrators responsible for receiving and processing incident reports.	A list of agencies or officials in regularly visited ports.	A list specifying who will be responsible for informing the parties listed and the priority in which they must be notified.	A list of personnel duty assignments.	

4	1570	A	Which is a mandatory section of the shipboard Oil Pollution Emergency Plan?	Reporting requirements	Removal equipment list	Planned exercises	List of individuals required to respond	
4	1571	B	A Halon 1301 cylinder is periodically tested for weight loss and pressure loss. It must be recharged if it has lost more than what minimum percentage of its weight?	3%	5%	10%	15%	
4	1572	C	Your fishing vessel operates more than 25 miles from the coastline on the Great Lakes. Which distress signal is NOT required to be on board?	3 red parachute flares	6 red hand flares	1 electric distress light	3 orange smoke signals	
4	1573	C	The searchlight on a survival craft must be capable of operating 3 hours continuously or 6 hours intermittently if operated in cycles of _____.	5 minutes on and 10 minutes off	10 minutes on and 5 minutes off	15 minutes on and 5 minutes off	15 minutes on and 10 minutes off	
4	1575	A	Foam extinguishes a fire by _____.	smothering the burning material	chemical combination with burning material	absorbing the burning material	organic destruction of the burning material	
4	1576	A	What is the minimum number of bolts required in a permanently connected flange oil hose coupling?	A bolt must be used in every hole.	6	4	3	
4	1577	B	What is the minimum number of bolts required in a temporary bolted flange oil hose coupling?	3	4	6	A bolt must be used in every hole.	
4	1578	B	You may not act as person-in-charge of oil transfer operations on more than one vessel at a time _____.	under any circumstances	unless authorized by the Captain of the Port	unless radio communication is set up between the vessels	unless the vessels are moored clear of all docks	
4	1579	A	During oil transfer operations, who is responsible for ensuring that the posted transfer procedures are followed?	The designated person in charge	The tankerman	The senior able seaman	The oiler	
4	1580	C	Which statement is TRUE concerning the placard entitled "Discharge of Oil Prohibited"?	It is required on all vessels.	It is only required in the wheelhouse.	It may be located at the bilge and ballast pump control station.	All of the above	
4	1581	B	When using the oxygen indicator, which reaction from the needle should you expect as a sample is drawn into the instrument?	Rise to the correct reading and then, slowly fall to zero as the oxygen in the sample is consumed	Move back and forth and finally stabilize at the correct reading after about 10 seconds	Rise to the correct reading immediately and then rise slowly to a false reading as the operating temperature increases	Slowly rise to the correct reading and then remain stationary	
4	1582	D	You are off the coast of South Africa, when a seaman is injured. What indicator should be used in a message requesting medical advice from a South African station?	DH MEDICO	XXX RADIOMEDICAL	MEDRAD	PORT HEALTH	
4	1583	A	You are having a Coast Guard inspection. All carbon dioxide fire extinguishers aboard will be _____.	weighed	discharged and recharged	checked for pressure loss	sent ashore to an approved service facility	
4	1585	C	Up to two thirds of a survival crafts required drinking water may be produced by a manually-powered reverse osmosis desalinator if it can be done in _____.	12 hours	1 day	2 days	4 days	
4	1586	B	The success of an indirect attack on a fire depends on the _____.	size of the fire when initially observed	complete containment of the fire	cooling ability of the firefighting agent	class of the fire	
4	1588	A	How should longitude 119°16.7'E be written when preparing an AMVER report?	11917E	Q193	119.3°E	119E	

4	1589	B	The SS AMERICAN MARINER is ready to load the cargo listed. There is already 3284 tons of cargo on board with a KG of 26.4 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.	KG 25.0 feet	KG 25.5 feet	KG 26.1 feet	KG 26.7 feet	ST-0043
4	1591	B	You discharge garbage overboard at sea. When recording your vessel's position as required, you must include _____.	latitude, longitude, and approximate depth of water	latitude, longitude, and estimated distance from shore	latitude and longitude only	latitude, longitude, course, speed, and a copy of that days noon position slip	
4	1592	A	A vessel has a cargo hold divided by a shaft alley into two tanks, each 35 feet long and 20 feet wide. Each tank is half filled with sea water. The vessel displaces 5,000 tons. The reduction in GM due to free surface effect is _____.	.27 foot	.30 foot	.31 foot	.33 foot	
4	1593	C	When launching an open lifeboat by falls, the boathooks should be _____.	secured forward and aft where readily available	secured amidships where they will not hinder the personnel	used for fending off	used for picking up survivors in the water	
4	1594	B	Which statement is TRUE concerning buoyant work vests aboard tank vessels?	They may be worn while working on deck but not while working over the side.	They must be used only under supervision of a designated ship's officer.	They will be accepted for up to 10% of the required life preservers.	They may be worn during drills.	
4	1596	C	By regulation, orange smoke distress signals will expire not more than how many months from the date of manufacture?	24 months	36 months	42 months	54 months	
4	1597	A	Which characteristic is an advantage of Halon as a fire extinguishing medium?	Electrically non-conductive	Relatively inexpensive	Effective against chemicals containing an oxidizer	All of the above	
4	1598	A	On board a small passenger vessel connections to electric conductors MUST be _____.	made within enclosures	served and parceled	installed only by a licensed marine electrician	Be inspected annually	
4	1599	A	All self-propelled vessels on an international voyage must be equipped with how many Emergency Position Indicating Radio beacons (EPIRB)?	One approved Category 1 EPIRB	Three approved Category 1 EPIRBs	One approved Class B EPIRB	Two approved Class B EPIRBs	
4	1600	D	You are berthed at a cargo facility where you have just completed discharging a dangerous cargo. You must complete topside repairs involving hot work before sailing. Which of the following statements is TRUE?	You can make repairs with permission of the facility owner since you are empty and the cargo is on the facility.	The repair area must be inspected by a marine surveyor to ensure that it can be done safely.	Hot work repairs at such a facility are prohibited.	The Captain of the Port may give specific approval to make hot work repairs.	
4	1601	C	Channel 13 is primarily used for ship to ship communication. Channel 13 is also authorized for _____.	coast to aircraft operational communications	aircraft to ship operational communications	lock & bridge communications	aircraft to ship navigational communications	
4	1603	C	During loading and discharging operations, in addition to when the cargo tanks have been properly filled, each inert gas system must be capable of maintaining a minimum gas pressure of _____.	150 millimeters of water pressure	125 millimeters of water pressure	100 millimeters of water pressure	75 millimeters of water pressure	
4	1605	B	What entry would NOT be shown on the V line of an AMVER report?	MD	MT	PA	NURSE	

4	1606	7	The SS AMERICAN MARINER has the following drafts: FWD 12'-04", AFT 13'-08". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.	1.91 feet	2.09 feet	2.21 feet	2.48 feet	ST-0044
4	1607	C	A bilge suction line, in a fishing vessel with more than 16 individuals aboard, must have a strainer with an open area not less than how many times the open area of the suction line?	one	two	three	four	
4	1608	D	Cold water, in commercial fishing, means water where the monthly mean low water temperature is normally _____.	39°Fahrenheit or less	44°Fahrenheit or less	49°Fahrenheit or less	59°Fahrenheit or less	
4	1609	C	Line throwing equipment should NOT be operated _____.	during a rain storm	near a lifeboat station	in an explosive atmosphere	by other than licensed officers	
4	1610	A	An "ABC" dry chemical fire extinguisher would be LEAST effective against a fire in _____.	a mattress	spilled liquids such as oil or paint	high voltage electrical gear	a trash can	
4	1611	C	How should longitude 116°54.9'E be written when preparing an AMVER report?	Q1169	116.9E	11655E	117E	
4	1612	B	Which action is routinely performed at the annual servicing and inspection of a dry-chemical cartridge-operated portable fire extinguisher?	Test the pressure gauge for correct reading.	Weigh the cartridge.	Replace the dry chemical.	Pressure test the discharge hose.	
4	1613	A	Steering a motor lifeboat broadside to the sea could cause it to _____.	capsize	run smoother	run faster	sink	
4	1614	D	You may have to give artificial respiration after a/an _____.	drowning	electrocution	poisoning	All of the above	
4	1615	B	When administering artificial respiration, it is MOST important to _____.	monitor blood pressure	clear airways	use the rhythmic pressure method	know all approved methods	
4	1617	B	When compared to low-expansion foam, a high-expansion foam will _____.	be wetter	be lighter	be more heat resistant	not cling to vertical surfaces	
4	1618	B	Which characteristic of Halon is a disadvantage when it is used as a fire extinguishing medium?	Leaves a residue	Cost, relative to other agents	Breaks down while under prolonged storage	Conducts electricity	
4	1619	D	A conscious victim who has suffered a blow to the head has symptoms that indicate the possibility of concussion. If the patient feels no indication of neck or spine injury, recommended treatment would include _____.	turning the victim's head to the side to keep his airway open	positioning the victim so the head is lower than the body	giving the victim water if he is thirsty, but no food	elevating the head and shoulders slightly with a pillow	
4	1620	C	One disadvantage of using regular dry chemical (sodium bicarbonate) in firefighting is that _____.	it can break down under high heat and emit noxious fumes	it will decompose under prolonged storage and lose its effectiveness	fire has been known to flash back over the surface of an oil fire	it is ineffective in fighting fires in high-voltage electrical equipment	
4	1621	B	Why is spare fire hose rolled for storage?	Water in the hose is forced out the end in the rolling process.	The threads on the male end are protected by the hose.	Rolling provides maximum protection against entry of foreign objects into the couplings.	Rolling provides maximum protection to the outer covering of the hose.	
4	1622	A	You are preparing to take another vessel in tow. Which signal indicates, "Hawser is made fast"?	Firing of a green star signal	Firing of a red star signal	An orange smoke signal	Three white star rockets at 1-minute intervals	

4	1624	D	A sail plan, including the vessel's itinerary, name, number, and persons aboard, should be filed with _____.	the FAA	the Coast Guard	U.S. Customs	a responsible person	
4	1625	D	A shipmate suffers a heart attack and stops breathing. You must _____.	immediately give a stimulant, by force if necessary	make the victim comfortable in a bunk	administer oxygen	immediately start CPR	
4	1626	B	A shipmate suffers a heart attack and stops breathing. You must _____.	administer oxygen	immediately check his pulse and start CPR	make the victim comfortable in a bunk	immediately give a stimulant, by force if necessary	
4	1627	D	The canvas covering of fire hose is called the _____.	casing	outer hose	line cover	jacket	
4	1628	C	You are running before a rough sea and a strong wind. Your sailing vessel is yawing. If the wind should catch the mainsail on the reverse side you will _____.	broach	tack	jibe	go in irons	
4	1629	D	Which statement is TRUE about fire fighting foam?	The air bubbles in foam act as an insulator in fighting a class C fire.	The effectiveness of foam in forming a blanket over a burning liquid increases as the temperature of the liquid increases.	Foam can be used to control gases escaping from compressed gas cylinders.	Foam sets up a vapor barrier over a flammable liquid preventing flammable gases from rising.	
4	1630	C	A deck-stowed 40-foot container is giving off smoke, and one end is discolored from heat. The cargo is valuable and easily damaged by water. You want to extinguish the fire without further damage if possible. What action should you take?	Connect a portable line from the ship's fixed system and discharge CO2 into the container.	Flood the container with water and disregard any cargo damage as the fire threatens the entire vessel.	Pierce the container and discharge 6 or more portable CO2's then add more CO2 hourly.	Cool the exterior of the container with water and close all vents; then keep it cooled until it can be off-loaded.	
4	1632	C	When joining the female coupling of the fire hose to the male outlet of the hydrant, you should make sure that the _____.	threads are lubricated	nozzle is attached to the hose	female coupling has a gasket	hose is led out	
4	1633	B	The SS NORTHLAND is loaded to drafts: FWD 18'-07", AFT 19'-05". The KG is 33.6 feet. Use the salmon pages of the Stability Data Reference Book to determine the angle of list if #6 starboard tank is fully loaded with 1624 tons of salt water ballast (VCG is 36.5 feet off the centerline).	4.0°	7.1°	8.0°	9.5°	
4	1634	A	To prevent the spread of fire by convection you should _____.	close all openings to the area	shut off all electrical power	remove combustibles from direct exposure	cool the bulkhead around the fire	
4	1635	C	Which firefighting method is an example of an indirect attack on a fire?	Bouncing a straight stream of water off the overhead to create spray effect	Spraying foam on a bulkhead and letting it flow down and over a pool of burning oil	Flooding a paint locker with CO2 and sealing the compartment	Cooling adjacent bulkheads with water to prevent the spread of the fire by conduction	
4	1636	C	How should latitude 54°18.9'N be written when preparing an AMVER report?	54.3N	0543N	5419N	54°N	
4	1637	D	Which is a disadvantage of Halon as a fire extinguishing medium?	Conducts electricity	Difficult to store	Large volume necessary to be effective	Ineffective in powdered metal fires	
4	1639	D	What entry would NOT be shown on the V line of an AMVER report?	NONE	NURSE	MD	DOCTOR	

4	1640	C	A Halon 1301 cylinder contains 100 pounds of liquid at 360 psi. It must be recharged when the weight drops below how many pounds of liquid?	90	92	95	98	
4	1641	A	The most serious effect of air trapped in a non-treated diesel engine jacket water cooling system is that it _____.	causes corrosion	reduces the ability of the system to cool the engine	can form pockets which block the flow of coolant through the system	accelerates formation of metal plating	
4	1642	B	The Master or person in charge on a MODU shall insure that line throwing equipment is not operated _____.	during a rain storm	in an explosive atmosphere	near a lifeboat station	by other than senior rig personnel	
4	1643	D	On a MODU with lifeboats stowed in two different locations, if all the lifeboats are lost in one location then the remaining lifeboats must accommodate what percentage of the persons permitted on board?	50%	75%	90%	100%	
4	1644	D	Which topic is NOT required to be discussed at the pre-transfer conference?	Identity of the product to be transferred	Details of transferring and receiving systems	Emergency shutdown procedures	Estimated time of finishing cargo	
4	1645	B	On a MODU, each emergency generator must be tested at least once each _____.	week	month	three months	six months	
4	1647	C	Electrical wiring on all "T-Boats" must be _____.	concealed to prevent mechanical damage	concealed so the boat can be maintained more easily	protected from the weather	in an accessible place behind the ceiling	
4	1648	D	What is an advantage of using foam in fire fighting?	It is MOST effective on very hot oil fires where the temperatures of the liquid exceed 100°C (212°F).	Most foams can be used with dry chemicals to attack a fire by two methods.	Foam is effective on combustible metal fires.	Foam can be made with seawater or fresh water.	
4	1649	D	The sails are properly set and trimmed. As a vessel heads up from a beam reach to close hauled the _____.	true wind velocity increases	heeling moment decreases	side slip decreases	jib sheet must be hardened up	
4	1650	A	When compared to low-expansion foam, a high-expansion foam will _____.	be drier	be heavier	be more heat resistant	not cling to vertical surfaces	
4	1652	A	An inland oil barge must have equipment available to remove an on-deck oil spill of at least _____.	one barrel	two barrels	five barrels	ten barrels	
4	1653	D	Before operating a non-oceangoing ship greater than 100 gross tons it must have a fixed piping system to discharge oily mixtures ashore. This system must include _____.	approved oil-water separating equipment	a fixed or portable containment system at the shore connection	a spare pump in case the main pump is inoperative	at least one outlet accessible from the weather deck	
4	1654	A	You are operating a ship greater than 400 gross tons. You are NOT permitted to carry oil or hazardous materials in a(n) _____.	forepeak tank	after peak tank	deep tank	on-deck portable tank	
4	1655	D	Which space(s) on your cargo vessel must have a fire detection system?	Any compartment containing explosives	Any compartment adjacent to one containing explosives	Enclosed spaces which are "specially suitable for vehicles"	All of the above	
4	1659	B	You have berthed in a port area with other tank vessels. What signal is displayed by a vessel to indicate it is transferring flammable or combustible liquid cargo?	A flashing yellow light	A red light visible all around the horizon	A green light visible all around the horizon	An illuminated red and yellow caution flag	
4	1660	A	If the meter needle of the oxygen indicator cannot be set to zero, what should be done?	Replace the batteries.	Check the sampling tube for blockage.	Adjust the final reading by the amount the needle is displaced from zero.	Replace the platinum filament.	

4	1661	B	What is the maximum number of crew members that may be berthed in one room aboard your cargo vessel?	Two	Four	Six	Eight	
4	1662	A	By regulation, your cargo vessel must have _____.	sufficient facilities for the crew to wash their clothes	a wash basin in each room	separate toilet facilities for engineers where their number exceeds six	All of the above	
4	1663	A	Which tank barges require draft marks?	All tank barges	Tank barges over 50 GT	Tank barges over 100 GT	Notch barges over 1000 GT	
4	1664	B	The number of fire extinguishers required on an uninspected "motor vessel" is based on the vessel's _____.	length	gross tonnage	draft	crew list	
4	1665	A	Which statement about stowing spare hose is TRUE?	Fold the hose so that the male coupling is about 4 feet from the female coupling, then roll it up.	Roll the hose starting at the female end.	Roll the hose starting at the male end.	Fold the hose into lengths about 6 feet long and then lash the folds together.	
4	1666	A	The SS AMERICAN MARINER has the following drafts: FWD 10'-04", AFT 14'-08". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.	1.91 feet	2.09 feet	2.21 feet	2.48 feet	ST-0045
4	1667	C	A shipmate suffers a heart attack and stops breathing. You must _____.	immediately give a stimulant, by force if necessary	make the victim comfortable in a bunk	immediately start CPR	administer oxygen	
4	1668	D	What is the report identifier code for an AMVER deviation report?	DV	PR	FR	DR	
4	1669	D	You have abandoned ship and after two days in a liferaft you can see an aircraft near the horizon apparently carrying out a search pattern. You should _____.	switch the EPIRB to the homing signal mode	use the voice transmission capability of the EPIRB to guide the aircraft to your raft	turn on the strobe light on the top of the EPIRB	use visual distress signals in conjunction with the EPIRB	
4	1672	A	Which of the following would be considered downflooding on a fishing vessel as defined in regulation?	Vessel heels until water enters a hatch.	Vessel in collision floods through a damaged area above the waterline.	Vessel takes on water due to the hatches being left open in heavy rain.	Vessel takes on water by the propeller shaft due to failure of the stern gland.	
4	1673	D	In commercial fishing, "cold water" means water where the monthly mean low water temperature is normally _____.	39°Fahrenheit or less	44°Fahrenheit or less	49°Fahrenheit or less	59°Fahrenheit or less	
4	1674	B	You are requisitioning stores for your tank vessel. What type of matches are permitted aboard?	Phosphorous	Safety	Self-extinguishing	Wooden	
4	1675	A	What entry would NOT be shown on the V line of an AMVER report?	MED TECH	MD	NONE	NURSE	
4	1676	D	Before you start an engine in a compartment, it's MOST important to _____.	check the flame arrester	check the fuel tank	check the battery	ventilate the bilges	
4	1677	C	After an engine is started you should _____.	increase engine speed to insure adequate flow of oil to all parts of the engine	pay no attention unless there are unusual noises from the engine	check operating pressures and temperatures, and check for leaks	run the engine at idle until the temperature has increased	

4	1678	D	Your vessel is 79 feet long with 20 people aboard. The coaming of a deck above the lowest weather deck (except an exposed forecastle deck) must be at least _____.	6" high	12" high	24" high	Not required	
4	1679	A	You are on a 92 foot fishing vessel with 35 individuals on board. Which one of the following items are you NOT required to have on board?	Gyro compass	Magnetic compass	Electronic position fixing device	VHF radiotelephone	
4	1680	A	In an open lifeboat, the lifeboat compass is usually _____.	placed in a fixed bracket when being used	clamped to any position convenient for the coxswain to see it	permanently mounted on the lifeboat's centerline	mounted in the center of the boat to eliminate deviation	
4	1681	B	An LWT anchor often has difficulty tripping in _____.	sand	soft soil	stiff clay	heterogeneous soil	
4	1682	B	Which radio call-in plan is the most prudent?	There must be a designated responsible person who will be available to receive your call at anytime.	There must be specific instructions for the designated responsible person to follow if your call does not come in on schedule.	The designated responsible person must be instructed to call the Coast Guard search and rescue authorities immediately if your call does not come in on schedule.	The designated responsible person should be over 18 years of age.	
4	1683	A	You are running before a strong wind in a sloop. The most dangerous thing to do is _____.	jibe	tack about	reef the mainsail	strike the jib	
4	1684	C	You are sailing before the wind in heavy weather. The failure of what will affect the vessel's safety most?	The main halyard	The jib sheet	The helm	The outhaul	
4	1685	C	A storm is forecast for the area where your vessel is moored. For its safety you should put _____.	more slack in the mooring lines	a strain on the mooring lines	chafing gear on the mooring lines	grease on the mooring lines	
4	1686	B	How many B-II fire extinguishers must be in the machinery space of a 175-foot long fishing vessel propelled by engines with 2300 brake horsepower?	2	3	4	5	
4	1687	B	The old sailors admonition "Beware the lee shore" warns of the danger due to _____.	the wind blowing stronger at this location	the ground swell making it difficult to tack off	the current flowing directly on shore	there being less wind in the lee of the shore	
4	1688	A	Each commercial fishing vessel must have at least one immersion suit, exposure suit, or life preserver for each _____.	person aboard	person working on deck	crew member	None of the above are correct.	
4	1689	C	You must pick up an individual who has fallen overboard from a sailboat. The final approach should be _____.	upwind	downwind	on a close reach	on a broad reach	
4	1690	A	The tops of the thwarts, side benches, and the footings of a lifeboat are painted which color?	International orange	Yellow	White	Red	
4	1691	C	When anchoring a small sailing vessel in rough weather, the best anchor line would be composed of _____.	chain-wire	chain-manila	chain-nylon	all chain	
4	1692	A	You are preparing for what promises to be a rough ocean passage. Your 120-foot schooner carries a yard on the foremast, about 50 feet above the water. The yard weighs about 1000 pounds. If you take the yard down and stow it on deck for the trip, you will _____.	increase your vessel's GM	decrease the metacentric height	give the vessel a gentler roll	increase the reserve buoyancy	

4	1693	B	Every different type of sailing rig can be dangerous in certain circumstances. Which situation would most likely be dangerous?	A gaff rig is dangerous in a calm wind and sea.	A gaff rig is dangerous in a calm wind and large swell.	A square rig, such as a ship rig, is dangerous to jibe.	A tall, marconi, sloop rig is dangerous to tack.	
4	1694	C	When repairing a torn sail at sea, you should _____.	use perfectly aligned stitches in old sail cloth so as to get the strain properly aligned	avoid using glued patches on old sail cloth	be sure to orient the weave of the patch material, on large patches, in the same orientation as the sail cloth being repaired	All of the above	
4	1695	A	In order to prevent galvanic corrosion, an aluminum boat must be insulated from the davits and gripes. Which of the following is acceptable as an insulator?	Hard rubber	Canvas	Leather	Sponge rubber	
4	1696	D	Which statement(s) is(are) TRUE?	Polyester sailcloth, such as Dacron, is resistant to rot due to moisture but susceptible to UV degradation and should be kept covered as much as possible.	Canvas sailcloth is susceptible to rot due to moisture and should never be covered when wet.	Kevlar sail cloth is susceptible to weakening due to repeated folding and therefore should be draped loosely over the boom when stowed.	All of the above are true.	
4	1698	B	To prevent a wooden hull from leaking you caulk it _____.	after dry docking, while the hull is moist	after dry docking, and the hull has dried	afloat, where it is leaking	afloat, in all accessible areas	
4	1699	A	On small sailing vessels, the PRIMARY reason for using nylon in a combination chain-nylon anchor line is to _____.	provide elasticity	increase the strength	reduce the cost	reduce the weight	
4	1700	B	How often must the impulse-projected line throwing appliance be test fired?	Monthly	At the Master's discretion	Semiannually	Annually	
4	1701	D	Movement of liquid in a tank when a vessel inclines causes an increase in _____.	righting arm	metacentric height	height of the uncorrected KG	natural rolling period	
4	1702	D	You are sailing at 8 knots on a beam reach in an apparent wind of 25 knots. Which statement is TRUE?	The true wind is a little abaft your beam, at just under 25 knots.	The apparent wind at the top of your mast will be slightly stronger than 25 knots and slightly farther forward than the wind at deck level.	If you turn to a close reach, the apparent wind will reduce in strength.	None of the above are true.	
4	1703	A	With regard to aerodynamic lift, which statement is TRUE?	If the thrust on a sail becomes excessive when close-hauled, it is likely to capsize the vessel rather than drive it.	When a sail is trimmed too tight, turbulence will break out on the windward side of the sail and cause a telltale there to flutter.	A properly trimmed sail should have laminar flow on the windward side and turbulent flow on the leeward side.	Adjusting the angle of attack on a mainsail is accomplished by adjusting the outhaul or the vang, if fitted.	
4	1704	B	Which statement is TRUE about sail shape?	A high-aspect ratio marconi mainsail is more efficient for downwind sailing than a gaff-rigged mainsail.	You should put more belly in a sail in light airs than in a strong breeze.	You can reduce the belly in a boomed mainsail by easing the sheet.	You can move the belly up in a mainsail by easing the luff tension.	

4	1705	D	How does an inert gas system on a tanker function to prevent explosions in cargo tanks?	De-energizes the "charged mist" effect.	Maintains a positive pressure on the vent header to cool the flammable vapors.	Inert gas filters out the flammable vapors from the cargo tank spaces.	Inert gas dilutes the flammable vapor and air concentrations to keep them below the lower explosive limit.	
4	1706	A	The major lift-producing part of a sail is the _____.	leading edge	trailing edge	head	foil	
4	1707	C	Your 40-foot auxiliary sailing vessel has just run aground on a bar. She has a relatively long, deep keel and the tide is falling. You have checked the bilges for damage and found none. Which is the most prudent action to take immediately?	Sheet the sails in flat to try to heel her over with the wind and sail off.	Start the engine and run it hard in forward to try to drive over and off the bar.	Strike the sails. Then run a kedge anchor out to one side, hook the main halyard to it, and heave the boat down onto one side.	Take soundings visually, by sounding pole, or lead line all around the vessel to locate the deepest water.	
4	1708	A	A chemical additive to LPG gives it a characteristic _____.	odor	color	pressure	density	
4	1709	D	Why is gas-freeing rarely required for LPG cargo tanks?	LPG is compatible with all cargos.	LPG's high oxygen content makes it nonvolatile.	Cargo tanks are inspected less frequently than on oil tankers.	The cargo tanks are used for one type of cargo only.	
4	1711	A	Which precaution should be taken when testing a line throwing gun?	Never remove the line from the rocket.	Fire it at an angle of approximately 90 degrees to the horizon.	Wear asbestos gloves.	All of the above	
4	1712	C	The gross weight of a fully charged CO2 cylinder is 80 lbs. When the bottle is empty it weighs 60 lbs. What is the minimum acceptable gross weight of the CO2 bottle before it should be recharged by the manufacturer?	55 lbs	68 lbs	78 lbs	82 lbs	
4	1713	B	Line throwing equipment should NOT be operated _____.	during a rain storm	in an explosive atmosphere	near a liferaft canister	by other than licensed officers	
4	1715	B	After allowing for pressure losses, the pressure-volume capacity of an inert gas blower must be able to maintain a pressure, in any cargo tank, at a minimum of _____.	50 millimeters of water pressure	100 millimeters of water pressure	150 millimeters of water pressure	200 millimeters of water pressure	
4	1717	C	An inert gas system on a tanker should be used to _____.	prevent the generation of flammable or combustible gas in tanks	blow out cargo lines to prevent the build up of gas concentrations	dilute tank atmospheres to keep gas concentrations below the lower explosive limit	prevent fires in the pumproom by continually displacing flammable vapors	
4	1718	B	You wish to communicate information that the swell in your area is 8-10 feet in height and from the northeast. This swell, as defined in the International Code of Signals, would be described as _____.	rough	moderate	high	confused	
4	1721	D	An inert gas system is designed to reduce the possibility of tank explosions by _____.	eliminating sparks and fire in the vicinity of cargo tanks	removing all hydrocarbon gases from the cargo tanks	blanketing cargo tanks with inert foam	reducing the oxygen concentration below levels necessary for combustion	
4	1722	D	Where are remote readouts for oxygen concentration, pressure, and temperature of an inert gas system required to be located?	Bridge and engine control consoles	Bridge and tank(s) being inerted	Main deck and engine control consoles	Cargo control and engine control consoles	

4	1723	C	The regulations that were passed to implement MARPOL 73/78 concerning oil pollution apply to a U.S. flag vessel that sails on which waters?	Inland waters only	Great Lakes only	International waters	All of the above	
4	1725	C	The most effective treatment for warming a crew member suffering from hypothermia is _____.	running or jumping to increase circulation	raising body temperature rapidly by placing hands and feet in hot water	bundling the body in blankets to rewarm gradually	laying prone under heat lamps to rewarm rapidly	
4	1727	B	Which method is used to supply inert gas from a flue gas system to the cargo tanks?	Exhaust gas pressure from the stack	High capacity fan	Inert gas compressor	Natural aspiration	
4	1728	B	What is the maximum percent of oxygen, by volume, allowed to be maintained in the cargo tanks prior to the commencement of crude oil tank washing?	5%	8%	10%	12%	
4	1729	A	The purpose of the deck seal in an inert gas system is to prevent _____.	flammable vapors from entering machinery space	flue gas escaping to atmosphere	inert gas escaping to atmosphere	air entering inert gas system	
4	1730	A	Each inert gas system must be designed to supply the cargo tanks with a gas, or mixture of gasses, that has an oxygen content by volume of _____.	5% or less	10% or less	15% or less	20% or less	
4	1731	A	Coast Guard Regulations permit which of the following systems to be used for fire prevention and the simultaneous inerting of cargo tanks on tank vessels?	An inert gas system	The deck foam system	The fire main system	A fixed water spray system	
4	1732	D	The blowers of an inert gas generation system aboard a tanker, will be automatically secured if _____.	normal water supply at the water seal is lost	the temperature of the inert gas being delivered to the cargo tanks is more than 150°F	the cooling water supply to the scrubbers is lost	all of the above	
4	1733	A	The last 1.0 meter (3.3 feet) of vapor piping before the vessel vapor connection must be painted _____.	red/yellow/red	yellow/red/yellow	international orange	hi-visibility yellow	
4	1734	B	Which procedure should be followed when individuals are rescued in cold climates and suffer from hypothermia?	Give them brandy or other alcoholic stimulation to promote a return to an acceptable body temperature.	Move them to a warm room to gradually raise their body temperature.	Keep them moving to stimulate circulation to raise their body temperature.	Warm them under an electric blanket to rapidly regain normal body temperature.	
4	1735	B	On a vapor control system, each vessel's vapor connection flange must have a _____.	6" reducer	stud at least 1" long projecting from the flange face	pressure gauge permanently attached to the flange	hose saddle	
4	1736	C	On a hydrocarbon flammability chart the line which extends from 0% to 21.8% oxygen, lying tangent to the flammability range, is called the _____.	minimum oxygen content line	critical displacement line	critical dilution line	upper threshold limit	
4	1737	D	In order for combustion to occur inside a piping system such as a vapor collection header in a marine emission control system, there must be _____.	fuel	oxygen	ignition	All of the above	
4	1739	B	The high-level overfill tank alarm, installed in the on-board monitoring system, must _____.	operate in unison with other alarms	be both audible and visual	be the same as the overfill alarm	sound when the tank is 90% full	

4	1740	D	Tank vessel inerting refers to _____.	the introduction of inert gas into a tank with the object of reducing the oxygen content to below 8% by volume	the introduction of inert gas into a gas free tank for the purpose of reducing the oxygen content to below 8% by volume	the introduction of inert gas into a cargo tank during cargo discharge to replace the volume of discharged cargo	All of the above	
4	1741	C	The maximum allowable oxygen content within the ship's cargo tanks, inert gas piping and the vapor recovery system is _____.	4%	5%	8%	10%	
4	1742	D	What is the report identifier code for the first AMVER report sent at the start of a voyage?	DP	DR	PR	SP	
4	1743	A	Introducing inert gas into a tank already inert with the object of further reducing the oxygen or hydrocarbon content to prevent combustion if air enters the tank is called _____.	purging	gas freeing	gas dispersion	bonding	
4	1744	D	Each hose used for transferring vapors must _____.	have a design burst pressure of at least 25 psig	be capable of withstanding at least 2.0 psi vacuum without collapsing or constricting	be electrically continuous with a maximum resistance of ten thousand ohms	All of the above	
4	1745	B	During loading, what is the minimum pressure required to be maintained by the inert gas system on cargo tanks?	2" water gauge	4" water gauge	20" water gauge	40" water gauge	
4	1746	B	An on-board monitoring system, using level sensors permanently installed in each vessel compartment, will have a high level alarm set at not more than _____.	90% of compartment capacity	95% of compartment capacity	97% of compartment capacity	99% of compartment capacity	
4	1748	C	In an inert gas system, high pressure alarms are set in the main vapor collection line to cause an audible and visual alarm if the pressure reaches a certain level. What is the percentage of the lowest relief valve setting at which the alarm must sound?	70%	80%	90%	95%	
4	1749	A	High pressure and low pressure alarms must be tested _____.	no earlier than 24 hours prior to loading	no later than 24 hours prior to loading	anytime prior to loading	weekly	
4	1750	A	You are on an inerted tankship. A low pressure alarm must be set to cause an audible and visual alarm if the pressure in the tanks cannot be maintained at more than _____.	4" water gauge	90% of the vacuum relief setting	90% of the pressure drop through the scrubber	90% of the vacuum assist fan	
4	1752	A	Vapor recovery hoses must be tested yearly at what ratio to their maximum allowable working pressure?	1½ mawp	2 mawp	3 mawp	5 mawp	
4	1754	C	A large metallic device, mounted directly in the piping (usually located at the dock near the point where the vapor hose is attached), designed to prevent the passage of a rapidly moving flame through the piping is called a _____.	flame arrestor	flame screen	detonation arrestor	detonation blocker	
4	1755	B	When checking the oxygen content of the cargo tanks prior to loading cargoes requiring vapor recovery, the atmosphere must be sampled _____.	one meter from the tank bottom and one meter below the tank top	one half the ullage of the tank and one meter below the tank top	one half the ullage of the tank and one meter above the tank bottom	at three meter intervals from the tank top	

4	1756	D	Under federal regulations, what minimum level of Blood Alcohol Content (BAC) constitutes a violation of the laws prohibiting Boating Under the Influence of Alcohol (BUI) on commercial vessels?	.18%BAC	.16%BAC	.12%BAC	.10%BAC	
4	1757	C	You are operating a liftboat. Before starting jacking operations you should _____.	put the crane in a vertical position	close the wheelhouse doors	have all personnel don life jackets	put a watch in the engineroom	
4	1758	D	A flooded leg on a liftboat would adversely affect the vessel's stability underway by _____.	increasing the righting moment	decreasing the vessel's displacement	increasing the reserve buoyancy	shifting the CG (center of gravity) off center	
4	1759	B	You are operating a liftboat. When beginning to jack down you should _____.	jack down one leg at a time	jack up first, then down	undog doors to the engine room	assemble all personnel on the main deck	
4	1760	A	After jacking down your liftboat you have an unexpected list. You find that the only cause of this list must be a flooded leg. Your next course of action should be to _____.	jack the vessel back up to a safe height	proceed on to your next destination since the list is unimportant	pump out all ballast to gain reserve buoyancy	notify the U. S. Coast Guard	
4	1761	B	After jacking down your liftboat you have an unexpected list. You find that the only cause of this list must be a flooded leg. The list caused by a flooded leg means your vessel has a(n)_____.	negative GM (metacentric height)	decrease in the GZ (righting arm)	increase in the waterplane and the metacentric height	less chance of deck edge immersion	
4	1762	C	You are operating a liftboat. When jacking down and free of the bottom you should _____.	raise one leg at a time	not be concerned about any list	raise all legs simultaneously	have the crane standing upright	
4	1763	C	You are operating a liftboat. When jacking down and a leg becomes stuck on the bottom, you should _____.	raise the free legs all the way	use the engines to rotate about the leg that is stuck	jack the barge down part way to pull the leg free	submerge the barge completely to give added pull	
4	1764	A	After jacking down your liftboat you have an unexpected list. You find that the only cause of this list must be a flooded leg. Raising the flooded leg further would adversely affect the boats stability by _____.	raising the KG and increasing the draft which may put you in an unsafe operating condition	increasing GM and causing a fast roll	increasing the righting arm on the high side	causing the vessel to yaw when underway	
4	1765	D	After jacking down your liftboat you have an unexpected list. You find that the only cause of this list must be a flooded leg. To keep adequate stability you should _____.	get underway with the flooded leg ONLY half raised to reduce KG	proceed with all legs half raised to lower KG	pump out all ballast to increase reserve buoyancy	jack back up and ballast the vessel's high side as necessary	
4	1766	C	You are operating a liftboat. In preparation for jacking you should _____.	make sure walkway is hanging over the bow	make sure that all boats alongside are securely fast	check that all equipment on deck is secured	have all personnel remain in their quarters	
4	1767	C	The explosive range of Diesel Oil mixed with air is _____.	0% to 1% by volume	0.8% to 5.3% by volume	1.3% to 6.0% by volume	6.3% to 12.1% by volume	
4	1768	A	The flammable limit of methyl ethyl ketone is from _____.	1.8% to 11.5%	6.6% to 12.1%	9.6% to 15.1%	12.2% to 18.1%	
4	1770	C	On a survival craft VHF radio precautions shall be taken to prevent the inadvertent selection of which channel _____.	6	8	16	22	
4	1771	B	The Sailing Plan, required by vessels participating in AMVER, should be sent _____.	24 hours prior to departure	within a few hours before or after departure	24 hours after departure	after the first position report	

4	1772	D	The definition of "partially protected waters", as used in the Regulations does not include _____.	harbors, lakes and similar waters determined by the OCMI to be protected waters	waters within 20 nautical miles from the mouth of a harbor of safe refuge	the Great Lakes during the summer season	sheltered waters presenting no special hazard	
4	1773	B	What must Inland vessels of 100 GT and over be fitted with for oily mixtures?	A fixed system to discharge the slops overboard	A fixed system to discharge oily mixtures to a reception facility	A portable system to discharge the slops overboard	A portable system to discharge oily mixtures to a reception facility	
4	1774	C	You are preparing to contain an oil spill. You must first receive approval from the Federal On-Scene Coordinator (OSC) prior to _____.	employing a boom	using suction equipment	applying chemical agents	deploying skimmers	
4	1775	B	You are inspecting the nonmetallic oil transfer hoses on the vessel you operate. The maximum allowable pressure of the hose is 70 psi. Your inspection confirms the hose did not burst, bulge, leak or abnormally distort under the required static liquid pressure of _____.	70 psi	105 psi	140 psi	210 psi	
4	1776	D	Which type of vessel shall be required to have an emergency towing arrangement fitted at both ends?	A 30,000 dwt ton oil barge	An 18,000 dwt ton tanker constructed in 1998	A 5,000 dwt ton coastal tanker	A 22,000 dwt ton tanker operated after Jan. 1, 1999	
4	1777	B	The transfer procedures required to be followed on tankships shall contain _____.	a list of each port of discharge	a line diagram of the vessel's transfer piping	a current crew list	the duties by name of each person in charge required for each transfer operation	
4	1778	D	The Sailing Plan, required by vessels participating in AMVER, should be sent _____.	after the first position report	24 hours prior to departure	24 hours after departure	within a few hours before or after departure	
4	1779	B	The Sailing Plan, required by vessels participating in AMVER, should be sent _____.	after the first position report	within a few hours before or after departure	24 hours prior to departure	24 hours after departure	
4	1780	B	How often must a compulsory vessel's GMDSS radio station be inspected?	Annually, under the U.S. Coast Guard's cognizance	Annually, under the FCC's cognizance	Annually, by the FCC, and every six months if the vessel sails outside of the Sea Areas A1 and A2	The FCC's annual inspection may be waived if, and only if, monthly inspections are performed by the vessel's onboard GMDSS Radio Maintainer.	
4	1781	D	Which frequencies and modes are allocated for distress alerting in GMDSS?	406 MHz via EPIRB	1626.5-1645.5 via INMARSAT	Channel 70 DSC plus six (6) MF/HF DSC frequencies	All of the above	
4	1782	D	Which channel has been designated for on-scene communications in GMDSS?	24	2182	70	16 and 2174.5	

4	1783	C	Which statement concerning GMDSS maintenance requirements is FALSE?	Compulsory vessels sailing in Sea Areas A1 and A2 must provide any one of the three maintenance options which are duplication of equipment, shore-based or at-sea maintenance capability.	Compulsory vessels sailing in Sea Areas A3 and A4 must provide any two of the three maintenance options which are duplication of equipment, shore-based or at-sea maintenance capability.	If shore-based maintenance is used, maintenance services do not have to be completed or performance verified unless the vessel will be sailing to a non-US port.	Equipment warranties do not satisfy GMDSS maintenance requirements.	
4	1784	A	Which statement concerning GMDSS distress alerts is TRUE?	Information contained in a distress alert includes the name and position of the distressed vessel, and may include additional information such as the nature of the situation and what kind of assistance that may be required.	Distress alerts may be used to alert other vessels, including those in port, of existing navigational hazards.	Distress alerts may be used to alert other vessels, including those in port, of existing weather warnings.	A vessel in the vicinity of a distress situation may leave the area without notifying the RCC that is overseeing the operation.	
4	1785	D	What is a GMDSS functional or carriage requirement for compulsory vessels?	A compulsory vessel must carry at least two (2) licensed GMDSS operators	A compulsory vessel must satisfy certain equipment carriage requirements that are determined by where the vessel sails.	A compulsory vessel must be able to transmit and respond to distress alerts.	All of the above	
4	1786	B	Which statement concerning reserve sources of energy for GMDSS is FALSE?	While the ship is at sea, there must be available at all times a supply of electrical energy sufficient to operate the radio installations and to charge any batteries used as part of a reserve source of energy.	Both the VHF and MF/HF installations must be simultaneously supplied.	A means of ensuring a continuous supply of electrical power must be provided to all GMDSS equipment that could be affected by an interruption in power.	If a UPS or equivalent is used to supply power to the ship's GPS receiver or other source of positional information, a means must be provided to ensure the continuous supply of the information in the event of a failure to the ship's main or emergency source of power.	
4	1787	C	Which GMDSS control selection may result in limited receiving range?	Setting the squelch control to its minimum level	The power switch is set to the "high" output position resulting in receiver over loading	Setting the squelch control to its maximum level	Setting the channel selection switch midway between channels 6 and 16	
4	1788	C	Which channel is designated as the VHF follow-on communications channel and is required in all portable survival craft equipment?	Channel 6	Channel 13	Channel 16	Channel 70	

4	1789	A	How long must GMDSS Radio Logs be retained onboard the ship in original form?	30 days	3 months	6 months	1 year	
4	1790	D	How long must GMDSS Radio Logs be retained by the licensee when they relate to a distress situation or disaster?	6 months	1 year	2 years	3 years	
4	1791	B	Where is the GMDSS Radio Logbook kept aboard ship?	Attached to the Deck Logbook	At the principal radio operating location	In the Chief Mate's office	In the Master's office	
4	1792	B	For GMDSS, which statement concerning a compulsory vessel is FALSE?	A conditional or partial exemption may be granted, in exceptional circumstances, for a single voyage outside the sea area for which the vessel is equipped.	Once a compulsory vessel's GMDSS station has been fitted and inspected, the station must be inspected only once every five years.	All passenger vessels and all cargo vessels that are 300 Gross Tons or larger must comply.	Compulsory vessels must carry at least two licensed GMDSS Radio Operators.	
4	1793	C	What is the minimum permit or license requirement of a GMDSS Radio Maintainer?	Holding the Marine Radio Operator Permit is a pre-requisite before the GMDSS Maintainer Endorsement can be obtained	Holding a valid GMDSS Radio Operator license is sufficient	Holding the GMDSS Radio Maintainer license is sufficient	Holding the GMDSS Radio Operator license for at least one year is a prerequisite to holding the GMDSS Radio Maintainer license	
4	1794	C	Which statement concerning GMDSS Radio Operator requirements is FALSE?	Each compulsory vessel must carry at least two licensed GMDSS Radio Operators at all times while at sea.	Each compulsory vessel must carry at least two licensed Radio Operators at all times while at sea and may elect to carry a GMDSS Radio Maintainer as well.	Communications involving safety of life at sea do not have to be logged as long as the compulsory vessel was not involved in such communications.	While at sea, adjustments to, and the maintaining of, GMDSS equipment may be performed by the GMDSS Radio operator as long as the work is supervised by an onboard licensed GMDSS Radio Maintainer.	
4	1795	D	Where can GMDSS regulations pertaining specifically to U.S.-flag vessels be found?	These are located in CCIR #476.	These are located in FCC Part 83.	These are published only by the U.S. Coast Guard.	These are located in FCC Part 80.	
4	1797	D	The upper limit of sulfur dioxide permitted to be maintained in the inert gas should not exceed _____.	0.08%	0.06%	0.04%	0.02%	
4	1798	B	The combined fan discharge rate in an inert gas system is related to the _____.	shoreside loading rate	cargo pump discharge rate	boiler forced draft fan rate	size of the largest cargo tank	
4	1799	B	Each inert gas system gas main must have an automatic shut down valve at the outlet of the gas production plant. This valve must close automatically upon _____.	cargo pump failure	blower failure	deck seal low water level	low inert gas temperature	
4	1800	B	Which U.S. agency issues a Certificate of Financial Responsibility?	Environmental Protection Agency	Coast Guard	Corps of Engineers	Maritime Administration	

4	1801	B	Each ship having an inert gas system must have a portable instrument to measure concentrations of hydrocarbon vapor in inert atmospheres and also to measure _____.	nitrogen	oxygen	carbon dioxide	water vapor	
4	1802	C	The component in an inert gas system used for cleaning the gas of solid and sulfur combustion products, while simultaneously cooling the inert gas, is called the _____.	filter	cooler	scrubber	purifier	
4	1803	A	On offshore drilling units when two means of escape are provided from a space above the main deck, one means of escape must be required for rapid escape to _____.	a weather deck	the main deck	the control house	the escape capsules	
4	1804	A	Your vessel displaces 869 tons and measures 136'L x33'B. You ship a large wave on the after deck which measures 52'Lx 33'B. The weight of the water is estimated at 52.8 tons. What is the reduction in GM due to free surface before the water drains overboard?	4.83 feet	5.12 feet	5.46 feet	5.85 feet	
4	1805	A	A sloop is a sailing vessel with _____.	one mast	two masts: with the mizzen stepped abaft the rudder post	two masts: with the mizzen stepped forward of the rudder post	two masts: a foremast and a mainmast	
4	1806	A	Your vessel displaces 562 tons and measures 121'L x 29'B. You ship a large wave on the after deck. What is the reduction to GM due to free surface before the water drains overboard, if the after deck measures 46'L x 29'B and the weight of the water is 41 tons?	4.43 feet	4.61 feet	4.86 feet	5.12 feet	
4	1807	B	Which is standing rigging?	Halyards	Stays	Sheets	Downhauls	
4	1808	A	Which of the listed functions is the purpose of a gas scrubber in an inert gas generation system?	Cools the inert gas.	Maintains the oxygen content at 5% by volume.	Bleeds off static electricity in the inert gas.	Maintains flow to the water seal on the gas main.	
4	1809	C	For GMDSS, which statement concerning compulsory vessels is TRUE?	Vessels over 500 gross tons must carry at least three licensed GMDSS Radio Operators.	Passenger vessels between 300-500 gross tons need to carry only one licensed GMDSS Radio Operator, but passenger vessels larger than 500 must carry two licensed Operators.	Vessels larger than 500 gross tons must carry certain additional GMDSS equipment than what a vessel between 300-500 gross tons must carry.	Vessels between 300-500 gross tons need to carry no more than one EPIRB, SART and survival craft transceiver, but vessels larger than 500 gross tons must carry two of each unit.	
4	1810	A	Halon extinguishes a fire by _____.	breaking the chain reaction	smothering the fire	cooling the fire	coating the fuel with a nonflammable surface	
4	1811	A	What should be your FIRST action if you discover a fire aboard ship?	Sound the alarm.	Attempt to put out the fire.	Confine it by closing doors, ports, vents, etc.	Call the Master.	
4	1812	A	The sails are properly set and trimmed. As a vessel heads up from a beam reach to close hauled the _____.	apparent wind moves forward	heeling moment decreases	side slip decreases	speed increases	

4	1813	C	On offshore drilling units all sleeping areas, mess areas, recreational and hospital areas that are adjacent to or immediately above a storage area or machinery space, paint locker, washroom, or toilet space must be made _____.	watertight	weathertight	odorproof	soundproof	
4	1814	D	Your vessel displaces 840 tons and measures 146'L x 38'B. You ship a large wave on the after deck. What is the reduction in GM due to free surface before the water drains overboard, if the after deck measures 65'L x 38'B and the weight of the water is 76 tons?	8.76 feet	8.93 feet	9.04 feet	9.27 feet	
4	1815	D	The sails are properly set and trimmed. As a vessel heads up from a beam reach to close hauled the _____.	speed increases	side slip decreases	heeling moment decreases	apparent wind moves forward	
4	1816	C	INTERNATIONAL AND INLAND Except where specifically required by the rules, a sailing vessel is NOT required to keep out of the way of a _____.	vessel engaged in fishing	vessel anchored	power-driven pilot vessel on station	vessel setting a channel buoy	
4	1817	C	Offshore drilling units that carry twelve or more persons on a voyage of more than three days must have a _____.	recreation room	radar room	hospital space	navigation space	
4	1818	B	In which Sea Area must a compulsory vessel carry either INMARSAT or HF SITOR equipment?	This equipment must be carried at all times at sea regardless of where the vessel will be operating.	This equipment partially satisfies the carriage requirement for vessels operating in Sea Area A3.	This equipment satisfies in full the carriage requirement for vessels operating in Sea Area A2.	HF SITOR equipment partially satisfies the carriage requirement for vessels operating in Sea Area A3, but INMARSAT equipment must be carried to satisfy the requirement when the vessel is in Sea Area A4.	
4	1819	B	Your vessel displaces 968 tons and measures 158'L x 40'B. You ship a large wave on the after deck. What is the reduction to GM due to free surface before the water drains overboard, if the after deck measures 65'L x 40'B and the weight of the water is 80 tons?	9.14 feet	9.45 feet	9.68 feet	9.87 feet	
4	1820	D	Your voyage planning indicates you will arrive at a waypoint in longitude 49°16.3'E at 0947 ZT on 3 March 1988. How should this date be entered into an AMVER report?	030947C MAR	3094703	06470303Z	030647Z MAR	
4	1821	A	On offshore drilling units where natural ventilation is provided, each porthole or window must be fitted with _____.	screens	portlights	covers	curtains	
4	1822	D	Which hazard probably would NOT be encountered when entering an empty but uncleaned fish hold?	Lack of oxygen	Methane gas	Hydrogen sulfide gas	Carbon monoxide	
4	1823	C	What is the MINIMUM distance a vessel subject to the requirements of Annex V to MARPOL 73/78 must be located from nearest land to legally discharge paper trash?	5 nautical miles	10 nautical miles	12 nautical miles	25 nautical miles	
4	1824	C	Most recreational sailing craft have triangular sails and are said to be _____.	Gaff rigged	Spinnaker rigged	Marconi rigged	Square rigged	

4	1825	A	Each drilling unit equipped with helicopter fuel storage tanks must have the tanks installed as far as practicable from the _____.	landing area and sources of vapor ignition	main deck	engine room	drill floor	
4	1826	C	Your vessel displaces 747 tons and measures 136'L by 34'B. You ship a large wave on the after deck. What is the reduction to GM due to free surface before the water drains overboard, if the after deck measures 56'L x 34'B and the weight of the water is 58.6 tons?	6.04 feet	6.23 feet	6.51 feet	6.76 feet	
4	1827	C	The helicopter deck on an offshore drilling unit is required to be fitted with perimeter lights in alternating colors of _____.	red and white	yellow and white	yellow and blue	yellow and red	
4	1828	B	A gas-free certificate would usually be issued by a(n) _____.	ABS marine surveyor	certified marine chemist	port engineer	Coast Guard marine inspector	
4	1829	D	A sailing vessel with the wind coming from 220° relative would be _____.	close hauled on the port tack	close hauled on the starboard tack	running before the wind	on a broad reach	
4	1830	C	Your voyage planning indicates you will arrive at a waypoint in longitude 149°16.3'E at 0947 ZT on 3 March 1988. How should this date be entered into an AMVER report?	030947K MAR	094703K	022347Z	234703Z	
4	1831	A	A slow and easy motion of a vessel in a seaway is an indication of a _____.	small GM	low center of gravity	stiff vessel	large GZ	
4	1832	C	For GMDSS, when may a compulsory vessel not be allowed to leave port?	When the vessel is in an overloaded condition	When the vessel has arranged for both duplication of equipment AND shore-based maintenance	When the vessel has replaced a required piece of GMDSS-related equipment but its performance has not been verified or logged	When the vessel is carrying only two licensed GMDSS Radio Operators and is capable of performing all required functions	
4	1833	C	Batteries for VHF Survival Craft Transceivers must have sufficient capacity to operate for a minimum of _____.	4 hours	6 hours	8 hours	12 hours	
4	1834	C	The liquid mud tanks on your vessel measure 20'L by 18'B by 7'D. The vessel's displacement is 986 T and the specific gravity of the mud is 1.6. What is the reduction in GM due to 2 of these tanks being slack?	.09 foot	.45 foot	.88 foot	1.35 feet	
4	1835	B	On surface type offshore drilling units, each survival craft must be capable of being launched to the water at the minimum operating draft, under unfavorable conditions of trim and with the unit listed not less than _____.	16°	20°	24°	30°	
4	1836	D	A ketch-rigged sailing vessel is sailing to windward with the wind about 50° on the port bow. All the sails are set and drawing properly. Which statement is TRUE?	If you slack the mizzen sheet, the center of effort will move aft.	If you slack the main sheet, the lift to drag ratio of the mainsail will increase.	If you sheet in the mainsail without changing course, the vessel will heel farther and speed up.	If you strike the mainsail, the center of effort of the whole rig will move down.	
4	1837	B	Each liferaft, which does not have an indicated maximum stowage height indicated on the liferaft, must be _____.	limited to carry no more than 10 persons	stowed not more than 59 feet above the lightest waterline	stowed in quick release racks	inspected every six months	
4	1838	A	When a sail is reefed, the sail area is _____ .	reduced	increased	widened	unchanged	

4	1839	A	A sailing vessel with the wind coming from 020° relative would be _____.	coming about	close hauled on the port tack	running before the wind	on a broad reach on the starboard tack	
4	1840	B	Your voyage planning indicates you will arrive at a waypoint in longitude 149°16.3'W at 0947 ZT on 3 March 1988. How should this date be entered into an AMVER report?	030947W	031947Z	031947 88	03MAR1947Z	
4	1842	B	How many VHF Survival Craft Transceivers are required aboard passenger ships?	2	3	4	5	
4	1843	D	With what other stations may portable survival craft transceivers communicate?	Communication is permitted between survival craft.	Communication is permitted between survival craft and ship.	Communication is permitted between survival craft and rescue unit.	All of the above	
4	1844	C	Your vessel displaces 368 tons and measures 96'L x 28'B. You ship a large wave on the after deck. What is the reduction to GM due to free surface before the water drains overboard, if the after deck measures 42'L x 28'B and the weight of the water is 36 tons?	4.98 feet	5.21 feet	5.43 feet	5.67 feet	
4	1845	C	What is the minimum number of hand held, rocket propelled, parachute, red flare, distress signals required on board offshore drilling units?	4	8	12	16	
4	1846	D	You are under sail on a close reach, and the wind is steady. While steady on course, you reef the mainsail and your speed slows. The apparent wind _____.	is unchanged	increases and draws aft	increases and draws forward	decreases and draws aft	
4	1847	D	An offshore drilling unit must be equipped with a first aid kit approved by the _____.	Coast Guard	American Bureau of Shipping	Minerals Management Service	Mine Safety and Health Administration	
4	1848	D	Your vessel displaces 477 tons and measures 116'L x 31'B. You ship a large wave on the after deck. What is the reduction in GM due to free surface before the water drains overboard, if the after deck measures 54'L x 31'B and the weight of the water is 51.5 tons?	6.43 feet	6.75 feet	6.99 feet	7.25 feet	
4	1849	C	Which line would NOT be used in handling a mainsail?	Halyard	Downhaul	Uphaul	Sheet	
4	1850	A	Your voyage planning indicates you will arrive at a waypoint in longitude 49°16.3 W at 0947 ZT on 3 March 1988. How should this date be entered into an AMVER report?	031247Z	030947P	124733 MAR	309473	
4	1851	A	When using a hand held smoke signal from a lifeboat, you should activate the signal _____.	on the downwind side	on the upwind side	inside the boat	at the stern	
4	1852	C	The liquid mud tanks on your vessel measure 32'L by 15'B by 8'D. The vessel's displacement is 640 tons and the specific gravity of the mud is 1.8. What is the reduction in GM due to 2 of these tanks being slack?	0.74 foot	1.24 feet	1.41 feet	1.66 feet	
4	1853	A	On offshore drilling units each fire station is identified by letters and numbers at least _____.	2 inches high	3 inches high	5 inches high	8 inches high	
4	1854	C	How is the Master or operator of a vessel required to keep the crew informed of the regulations concerning the discharging of garbage overboard?	Give each crewmember a copy of ANNEX V of MARPOL.	Call an all hands meeting before sailing.	Keep placards prominently posted.	Have each person read and sign a copy of the regulations.	
4	1855	A	An offshore drilling unit is required to carry on board an operations manual approved by the _____.	Coast Guard	National Cargo Bureau	Minerals Management Service	builder	

4	1856	D	A sailing vessel with the wind coming from 180° relative would be _____.	close hauled on the starboard tack	close hauled on the port tack	on a broad reach on a port tack	running before the wind	
4	1857	A	Which statement concerning locating signals in the GMDSS is FALSE?	Locating signals are transmitted by survival craft VHF transceivers.	Locating signals are transmitted by SARTs.	Locating signals are intended to facilitate the finding of a distressed vessel or its survivors	Locating signals are not transmitted by autoalarm generators.	
4	1858	C	A sailing vessel with the wind coming from 180° relative would be _____.	close hauled on the port tack	close hauled on the starboard tack	running before the wind	on a broad reach	
4	1859	C	The parts of the sail shown are correctly labeled EXCEPT the _____.	head	leach	luff	tack	D003SL
4	1860	C	You are underway at sea when a fire is reported in the forward part of the vessel. The wind is from dead ahead at 20 knots. You should _____.	remain on course and hold speed	change course to put the wind on either beam and increase speed	change course and put the stern to the wind	remain on course but decrease speed	
4	1861	B	On offshore drilling units, emergency lighting and each emergency power system must be tested at least once a _____.	day	week	month	year	
4	1862	B	All electrical appliances aboard a vessel should be grounded to _____.	prevent them from falling when the vessel rolls	protect personnel from electrical shock	increase their operating efficiency	prevent unauthorized personnel from operating them	
4	1863	B	On offshore drilling units, each storage battery for emergency lighting and power systems must be tested every six months under actual connected load for a period of at least _____.	1 hour	2 hours	3 hours	4 hours	
4	1864	D	The liquid mud tanks on your vessel measure 40'L by 20'B by 8'D. The vessel's displacement is 996 T and the specific gravity of the mud is 1.7. What is the reduction in GM due to 2 of these tanks being slack?	0.95 foot	1.26 feet	2.10 feet	2.54 feet	
4	1865	C	The SS AMERICAN MARINER is partially loaded with a GM of 2.6 feet and drafts of: FWD 13'-07", AFT 15'-01". Use the white pages of the Stability Data Reference Book to determine what tanks you should ballast to increase the GM to 3.4 feet.	Tanks: DB1, DB3	Tanks: DB5, DT1A	Tanks: DB6, DB7, DT7	Tanks: DB4, DT8	
4	1866	B	The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.	Available GM 5.0 ft	Available GM 5.4 ft	Available GM 6.1 ft	Available GM 6.8 ft	ST-0046
4	1867	C	Under the Pollution Regulations, when you dump garbage in to the sea you must _____.	notify the U.S. Coast Guard	make an entry in the Official Logbook	keep a record for two years	No action is required if you are more than 25 miles from land and no plastic materials are dumped.	
4	1868	C	The liquid mud tanks on your vessel measure 22'L by 16'B by 7'D. The vessel's displacement is 568 T and the specific gravity of the mud is 1.6. What is the reduction in GM due to 2 of these tanks being slack?	0.56 foot	0.96 foot	1.18 feet	1.43 feet	
4	1869	D	The three corners of the main sail are called _____.	head, fore, and aft	luff, leech, and spar	headboard, foot, and tail	head, tack, and clew	D002SL

4	1870	A	When should a fire be ventilated?	When attacking the fire directly	When using a steam smothering system	When using the fixed CO2 system	All of the above	
4	1871	D	If the cause of a sudden severe list is negative initial stability, counterflooding into empty tanks may _____.	increase the righting moment	cause an increase in the righting arm	bring the vessel to an upright equilibrium position	cause the vessel to flop to a greater angle	
4	1872	D	Your vessel displaces 641 tons. The existing deck cargo has a center of gravity of 3.6 feet above the deck and weighs 36 tons. If you load 22 tons of ground tackle with an estimated center of gravity of 2.0 feet above the deck, what is the final height of the CG of the deck cargo?	2.33 feet	2.55 feet	2.77 feet	2.99 feet	
4	1874	C	Automatic fire dampers in ventilation systems are operated by use of a _____.	remote operated valve	C02 system pressure switch	fusible link	heat or smoke detector	
4	1875	C	After abandoning ship which action should be taken IMMEDIATELY upon entering a liferaft?	Open equipment pack.	Issue anti-seasickness medicine.	Get clear of the ship.	Dry the liferaft floor and inflate.	
4	1876	C	A sailing vessel with the wind coming from 140° relative would be _____.	close hauled on the starboard tack	close hauled on the port tack	on a broad reach	running before the wind	
4	1877	C	Which shipboard equipment will detect a signal from a SART?	S-Band Radar	A DSC receiver	X-Band Radar	The autoalarm	
4	1878	D	The liquid mud tanks on your vessel measure 20'L by 18'B by 7'D. The vessel's displacement is 866 T and the specific gravity of the mud is 1.8. What is the reduction in GM due to 2 of these tanks being slack?	0.24 foot	0.56 foot	0.95 foot	1.12 feet	
4	1879	B	Your vessel measures 127 feet long by 17 feet in beam. If the natural rolling period at a draft of 7'-10" is 5 seconds, what is the GM?	1.96 feet	2.24 feet	2.45 feet	2.68 feet	
4	1880	D	The primary reason for placing covers over storage batteries is to _____.	prevent the accumulation of explosive gases	protect the hull from leaking electrolyte	prevent movement of the battery in rough waters	protect against accidental shorting across terminals	
4	1881	B	What does a SART signal sound or look like?	It transmits "SOS" and the vessel's name and position in slow speed Morse Code.	It will appear on a radar unit's PPI as a line of dots radiating outward with the innermost dot indicating the SART's position.	It will appear on a radar unit's PPI as a line of dots radiating outward with the outermost dot indicating the SART's position.	None of the above	
4	1882	B	A sailing vessel with the wind coming from 260° relative would be _____.	on a close reach	on a broad reach	on a starboard tack	running before the wind	
4	1883	D	On offshore drilling units, the Muster List ("Station Bill") must be posted in conspicuous locations and signed by the _____.	company man	driller	owner	Master or person in charge	
4	1884	D	INTERNATIONAL AND INLAND Unless the rules require otherwise, a sailing vessel must keep out of the way of _____.	an overtaking vessel	a pilot vessel on station	another sailing vessel on a crossing course	a vessel trawling	
4	1885	A	In the case of an injury causing a person to be incapacitated, the Master or person in charge of a mobile offshore drilling unit must submit a report to the _____.	nearest Marine Safety or Marine Inspection Office	nearest hospital	Department of Energy	American Bureau of Shipping	

4	1886	D	The liquid mud tanks on your vessel measure 30'L by 15'B by 6'D. The vessel's displacement is 968 T and the specific gravity of the mud is 1.8. What is the reduction in GM due to 2 of these tanks being slack?	.19 foot	.42 foot	.64 foot	.87 foot	
4	1887	C	When amendments are made to the Shipboard Oil Pollution Emergency Plan, the revisions must be submitted to the Coast Guard _____.	one month before the anniversary date of the plan	six months before the end of the approval period	and cannot be implemented without approval	and can be implemented without immediate approval as long as final approval is received within six months of submission	
4	1888	B	The liquid mud tanks on your vessel measure 18'L by 10'B by 6'D. The vessel's displacement is 944 T and the specific gravity of the mud is 1.9. What is the reduction in GM due to 2 of the tanks being slack?	.08 foot	.16 foot	.45 foot	.90 foot	
4	1889	A	How can rescue personnel detect that a SART is transmitting in the immediate vicinity?	The SART's blips on the PPI will begin arcing and eventually become concentric circles.	The DSC unit will react to the SART's signal and respond with the two-tone alarm.	The SART can provide an approximate location to within a two nautical mile radius, per IMO standards.	The SART signal appears as a target which comes and goes; the effect of heavy swells on a SART.	
4	1890	C	Spaces containing batteries require good ventilation because _____.	ventilation avoids CO2 build up	ventilation supplies extra oxygen for charging the battery	ventilation avoids flammable gas accumulation	less electrolyte is required to maintain the batteries' charge	
4	1891	C	What would most likely prevent a SART's signal from being detected?	Signal absorption by the ionosphere	Heavy sea swells	The rescue personnel were monitoring the 10-cm radar	The rescue personnel were monitoring the 3-cm radar	
4	1892	D	What is the required amount of time that a SART's battery must be able to operate the unit in the standby mode?	8 hours	2 days	3 days	4 days	
4	1893	D	Which equipment is the primary source of generating a locating signal?	DSC only	DSC and EPIRB	SART and DSC	EPIRB and SART	
4	1894	B	The liquid mud tanks on your vessel measure 24'L by 16'B by 8'D. The vessel's displacement in salt water (specific gravity 1.025) is 864 T and the specific gravity of the mud is 1.47. What is the reduction in GM due to 2 of these tanks being slack?	0.32 foot	0.78 foot	0.96 foot	1.12 feet	
4	1895	B	How can a SART's effective range be maximized?	The SART should be placed in water immediately upon activation.	The SART should be held as high as possible.	Switch the SART into the "high" power position.	If possible, the SART should be mounted horizontally so that its signal matches that of the searching radar signal.	
4	1896	C	The edge of the sail labeled "A" is called the _____.	leech	clew	luff	headboard	D001SL
4	1897	B	Which is a part of a vessel's standing rigging?	Sheet	Backstay	Topping lift	Downhaul	
4	1898	A	Your vessel displaces 585 tons and measures 128'L by 26'B. What is the reduction in GM due to free surface if the fish hold (30'L by 18'B by 9'D) is filled with 2.8 feet of water? (Each foot of water weighs 15.4 tons)	0.66 foot	1.12 feet	1.37 feet	1.58 feet	

4	1899	C	Your vessel displaces 684 tons and measures 132'L by 31'B. What is the reduction in GM due to free surface if the fish hold (32'L by 29'B by 9'D) is filled with 2 feet of water? (Each foot of water weighs 26.5 tons)	2.17 feet	2.32 feet	2.52 feet	3.01 feet	
4	1900	C	The accumulation of dangerous fumes generated by the storage batteries is best prevented by _____.	covering the batteries in a nonconducting, solid enclosure	mounting the batteries in a position as high as possible	natural or mechanical ventilation	securing the batteries to vibration reducing mounting brackets	
4	1901	D	Which conditions will normally cause a SART to operate in the active mode?	It will respond only to interrogation by 9-Ghz radar signals.	A SART will normally respond to interrogation from a searching vessel's radar if the radar antenna is at least 15 meters high.	A SART will normally respond to interrogation from a searching aircraft's radar if the radar's output power is at least 10,000 watts and the aircraft is at a height of 3000 feet and within 30 nautical miles.	All of the above	
4	1902	B	Which task is NOT the responsibility of the GMDSS Radio Operator?	Inspecting and cleaning the SART's container, and clearing the immediate storage area of any debris or obstacles.	Measuring the SART's transmitted frequency.	Placing the SART in the test mode and verifying that the nearby PPI shows concentric circles.	Ensuring the SART's batteries are replaced before their expiration date.	
4	1903	C	You are approaching another vessel and see that she has the signal flag "W" hoisted. What should you do?	Proceed on present course and speed since the vessel is stopped and making no way through the water.	Attempt to call the vessel on VHF radiotelephone because she is disabled.	Attempt to call the vessel on VHF radiotelephone because someone on board requires medical assistance.	Proceed on present course and speed since the vessel is declaring that she is "healthy" and requests free pratique.	
4	1904	C	A sailing vessel with the wind coming over the port side is said to be on a _____.	port jibe	starboard jibe	port tack	starboard tack	
4	1905	D	What fitting on the mast works in conjunction with the shrouds to control side bend of the mast?	Chainplate	Hound	Crowfoot	Spreader	
4	1906	B	Your vessel displaces 930 tons and measures 156'L by 38'B. What is the reduction in GM due to free surface if the fish hold (46'L by 28'B by 8'D) is filled with 1.5 feet of water? (Each foot of water weighs 36.8 tons)	2.16 feet	2.44 feet	2.75 feet	2.99 feet	
4	1908	C	Your vessel displaces 750 tons and measures 151'L by 35'B. What is the reduction in GM due to free surface if the fish hold (60'L by 31'B by 10'D) is filled with 3.5 feet of water? (Each foot of water weighs 53.1 tons)	4.14 feet	4.38 feet	4.55 feet	4.94 feet	
4	1909	D	On a passenger vessel, the vessel's name must appear on _____.	ring life buoy	lifeboats	lifeboat oars	All of the above	
4	1910	C	Which visual distress signal is acceptable for daylight use only?	Hand-held red flare	Self-contained rocket-propelled parachute red flare	Hand-held orange smoke distress flare	Red aerial pyrotechnic flare	

4	1911	C	A ketch is a sailing vessel with _____.	one mast	two masts: with the mizzen stepped abaft the rudder post	two masts: with the mizzen stepped forward of the rudder post	two masts: a foremast and a mainmast	
4	1912	C	Your vessel displaces 640 tons. The existing deck cargo has center of gravity of 2.3 feet above the deck and weighs 18 tons. If you load 12 tons of ground tackle with an estimated center of gravity of 21 inches above the deck, what is the final height of the CG of the deck cargo?	1.75 feet	1.94 feet	2.08 feet	2.26 feet	
4	1913	A	The SS AMERICAN MARINER has the following drafts: FWD 13'-04", AFT 14'-04". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.	1.77 feet	1.91 feet	2.09 feet	2.21 feet	ST-0047
4	1914	B	Your vessel displaces 728 tons and measures 138'L by 31'B. What is the reduction in GM due to free surface if the fish hold (36'L by 29'B by 9'D) is filled with 3.6 feet of water? (Each foot of water weighs 29.8 tons)	2.35 feet	2.50 feet	2.72 feet	2.96 feet	
4	1915	B	The sails are properly set and trimmed. As a vessel heads up from a beam reach to close hauled the _____.	apparent wind moves aft	heeling moment increases	side slip decreases	mainsheet must be eased	
4	1916	B	What is part of a vessel's standing rigging?	Sheet	Backstay	Topping lift	Downhaul	
4	1917	A	How can the SART's audible tone monitor be used?	It informs survivors that assistance may be nearby.	It informs survivors when the battery's charge condition has weakened.	It informs survivors when the SART switches to the standby mode.	It informs survivors that a nearby vessel is signaling on DSC.	
4	1918	B	Which equipment is not a source of locating signals?	EPIRB's that transmit on 406 MHz	Survival craft VHF transceivers that provide a beacon on 121.5 MHz	COSPAS-SARSAT EPIRBs	SARTs operating on 9 GHz	
4	1919	A	A sailing vessel with the wind coming from 050° relative would be _____.	close hauled on the starboard tack	reaching on a starboard tack	on a broad reach on a port tack	running before the wind	
4	1920	B	Which statement is TRUE concerning life preservers?	Buoyant vests may be substituted for life preservers.	Kapok life preservers must have vinyl-covered pad inserts.	Life preservers must always be worn with the same side facing outwards.	Life preservers are not designed to turn a person's face clear of the water when unconscious.	
4	1921	B	Certificates of Inspection for offshore drilling units are issued for a period of _____.	12 months	24 months	36 months	48 months	
4	1922	A	BOTH INTERNATIONAL AND INLAND A sailing vessel shall not impede the safe passage of a _____.	power-driven vessel following a traffic lane	pilot vessel enroute to a pilot station	law enforcement vessel	All of the above	
4	1923	C	Except as provided by approved special examinations, each offshore drilling unit must be dry-docked at least once during every _____.	12 month period	18 month period	24 month period	36 month period	
4	1924	A	Your vessel displaces 645 tons and measures 132'L by 34'B. What is the reduction in GM due to free surface if the fish hold (30'L by 26'B by 8'D) is filled with 3.0 feet of water? (Each foot of water weighs 22.3 tons)	1.76 feet	1.94 feet	2.10 feet	2.44 feet	

4	1925	C	A construction portfolio prepared for each new offshore drilling unit must be approved by the _____.	American Bureau of Shipping	National Cargo Bureau	U.S. Coast Guard	Minerals Management Service	
4	1926	C	A "reaching" course is one in which the wind _____.	comes directly over the bow	comes directly over the stern	comes over an area extending from broad on the bow to the quarter	has no effect on the vessel	
4	1927	A	On offshore drilling units, the minimum number of inclined ladders which must be fitted between each weather deck is _____.	1	2	3	4	
4	1928	D	Your vessel displaces 740 tons and measures 141'L by 34'B. What is the reduction in GM due to free surface if the fish hold (41'L by 30'B by 9'D) is filled with 2.5 feet of water? (Each foot of water weighs 35.1 tons)	2.14 feet	2.75 feet	2.96 feet	3.18 feet	
4	1929	B	Which statement concerning homing signals in the GMDSS is FALSE?	A homing signal provides a bearing for rescue personnel to follow to the signal's SOURCE.	A homing signal is detected by the COSPAS-SARSAT satellites.	A homing signal cannot be detected by a GPS receiver.	A homing signal may be transmitted by equipment attached to the survival craft.	
4	1930	B	You must ensure that lifesaving equipment is _____.	locked up	readily accessible for use	inaccessible to passengers	on the topmost deck of the vessel at all times	
4	1931	B	The SS NORTHLAND is loaded to drafts: FWD 17'-03", AFT 19'-03". The KG is 23.6 feet. Use the salmon pages of the Stability Data Reference Book to determine the angle of list if #6 starboard tank is fully loaded with 1624 tons of salt water ballast (VCG is 36.5 feet off the centerline).	3.0°	4.4°	6.0°	7.5°	
4	1932	C	Which statement about sailing close-hauled is TRUE?	If you ease the sheets, you can sail faster and closer to the wind.	If you ease the sheets, you can sail faster on the same course.	If you steer closer to the wind, you will slow down.	If you sheet your sails closer to the centerline, you must bear away from the wind.	
4	1933	C	The Sailing Plan, required by vessels participating in AMVER, must be sent _____.	within 12 hours of departure	within 24 hours of departure	within a few hours before or after departure	prior to departure	
4	1934	B	Which piece of required GMDSS equipment is the primary source of transmitting locating signals?	Radio Direction Finder (RDF)	An EPIRB transmitting on 406 MHz	Survival Craft Transceiver	A SART transmitting on 406 MHz	
4	1935	D	Temporary Certificates of Inspection for offshore drilling units are effective until the _____.	Operations Manual is approved	Minerals Management Service approval is issued	classification society approval is issued	permanent Certificate of Inspection is issued	
4	1936	D	Your vessel displaces 696 tons and measures 135'L by 34'B. What is the reduction in GM due to free surface if the fish hold (32'L by 29'B by 9'D) is filled with 2.0 feet of water? (Each foot of water weighs 26.5 tons)	1.96 feet	2.04 feet	2.25 feet	2.48 feet	
4	1937	A	On offshore drilling units, a fire drill must be conducted at least once a _____.	week	month	quarter	year	
4	1938	D	A wobbling tail shaft is an indication of _____.	shallow water	an engine that is misfiring	a tight tail shaft gland	worn stern bearing or misalignment	

4	1939	B	You have 520 tons of below deck tonnage. There is no liquid mud. If you have 160 tons of cargo above deck with a VCG above the deck of 3.2, what is the maximum allowed VCG of the remainder of the deck cargo that is permitted?	1.43 feet	2.79 feet	3.10 feet	3.64 feet	D036DG
4	1940	C	Life jackets should be stowed in _____.	survival craft	messrooms	readily accessible locations	locked watertight containers	
4	1941	A	On offshore drilling units, boat drills must be conducted at least _____.	monthly	quarterly	daily	annually	
4	1942	C	Which EPIRB transmits a distress alert that is received and relayed by an INMARSAT satellite?	Class A EPIRBs	Class B EPIRBs	L-Band EPIRBs	Category I EPIRBs	
4	1943	A	Which statement concerning satellite EPIRBs is TRUE?	Once activated, these EPIRBs continuously send up a signal for use in identifying the vessel and for determining the position of the beacon.	The coded signal identifies the nature of the distress situation.	The coded signal only identifies the vessel's name and port of registry.	If the GMDSS Radio Operator does not program the EPIRB, it will transmit default information such as the follow-on communications frequency and mode.	
4	1944	D	You have 640 tons of below deck tonnage. There is no liquid mud aboard. If you have 160 tons of cargo above deck with a VCG above the deck of 3.4 feet, what is the maximum allowed VCG of the remainder of the deck cargo that is permitted? (see illustration D036DG, stability letter for M.V. Hudson)	1.24 feet	1.65 feet	1.98 feet	2.46 feet	D036DG
4	1945	A	What is the best method to overcome the effects of shadowing when attempting to place an INMARSAT-B call?	A small course change should work.	Select a CES that serves the INMARSAT satellite that will handle the call.	Installing a shadow correction filter will compensate in fringe areas.	Turning on compensators will work in all but extreme cases of shadowing.	
4	1946	C	You have 8 containers of steward's supplies each measuring 6'L by 6'B by 6'H and weighing 1.5 tons each. Each container is stowed on deck. What is the maximum VCG permitted of the remaining cargo if you are carrying rig water and load to maximum capacity? (Refer to trim and stability letter for M.V. Surveyor.)	1.00 foot	1.33 feet	1.48 feet	2.00 feet	DO37DG
4	1947	D	INTERNATIONAL AND INLAND Your 18-meter vessel is under sail at night displaying sidelights, stern light, and a red light over a green light at the masthead. If you start the auxiliary engine and engage the propeller, you must_____.	turn your stern light off	show two green lights instead of a red and green at the masthead	display a white light in sufficient time to prevent collision	turn off the red over green, turn on the white masthead light	
4	1948	C	You have 600 tons of below deck tonnage. There is no liquid mud aboard. If you have 150 tons of cargo above deck with a VCG above the deck of 2.8 feet, what is the maximum allowed VCG of the remainder of the deck cargo that is permitted? (See illustration D036DG, stability letter for M.V. Hudson)	1.96 feet	2.25 feet	3.20 feet	3.55 feet	D036DG
4	1949	B	What is meant by "CES"?	Coast Earth Satellite	Coast Earth Station	Central Equatorial Station	Coastal Equivalent Station	

4	1950	C	The lifesaving equipment on all vessels shall be _____.	inspected weekly	stowed in locked compartments	readily accessible	tested yearly	
4	1951	A	If you must jump from a vessel, the correct posture includes _____.	holding down the life preserver against the chest with one arm crossing the other, covering the mouth and nose with a hand, and feet together	knees bent and held close to the body with both arms around legs	body straight and arms held tightly at the sides for feet first entry into the water	both hands holding the life preserver below the chin with knees bent and legs crossed	
4	1952	B	Your vessel displaces 497 tons. The existing deck cargo has a center of gravity of 2.5 feet above the deck and weighs 24 tons. If you load 18 tons of ground tackle with an estimated center of gravity of 18 inches above the deck, what is the final height of the CG of the deck cargo?	1.86 feet	2.07 feet	2.35 feet	2.76 feet	
4	1953	C	Which fitting is used to connect the boom to the mast?	Clevis pin	Gunter-lug	Gooseneck	Transom	
4	1955	C	How often must the emergency generator be tested on a mobile offshore drilling unit?	Once each day	Once each week	Once each month	Once each year	
4	1956	B	You have 400 tons of below deck tonnage. There is no liquid mud aboard. If you have 225 tons of cargo above deck with a VCG above the deck of 3.4 feet, what is the maximum allowed VCG of the remainder of the deck cargo that is permitted?	1.96 feet	2.28 feet	2.65 feet	2.93 feet	D036DG
4	1957	B	The first AMVER position report must be sent within how many hours of departure?	12	24	36	48	
4	1958	D	You have 710 tons of below deck tonnage. There is no liquid mud aboard. If you have 150 tons of cargo above deck with a VCG above the deck of 3.1 feet, what is the maximum allowed VCG of the remainder of the deck cargo that is permitted? (See illustration D036DG, stability letter for M.V. Hudson)	1.84 feet	2.13 feet	2.43 feet	2.78 feet	D036DG
4	1959	D	You have approximately 34 tons of fish on deck. What will be the shift in the center of gravity after you shift the fish to the fish hold, a vertical distance of 7.5 feet? (total displacement is 638 tons)	0.1 foot	0.2 foot	0.3 foot	0.4 foot	
4	1961	B	Which maintenance functions can a GMDSS Radio Operator perform?	The Operator can make fine internal adjustments to the transmitter as long as the output power does not change by more than one percent.	The Operator is responsible for ensuring that INMARSAT antennas are free of built-up soot and clear of obstacles.	All levels of maintenance must be performed by a licensed GMDSS Radio Maintainer.	The Operator may install an EPROM in order to ensure that the equipment continues to operate within legal constraints.	
4	1962	D	You have 200 tons of below deck tonnage. There is no liquid mud aboard. If you have 140 tons of cargo above deck with a VCG above the deck of 4.2 feet, what is the maximum allowed VCG of the remainder of the deck cargo that is permitted?	0.56 foot	0.87 foot	1.04 feet	2.44 feet	D036DG

4	1963	C	How is a distress message normally initiated through INMARSAT?	All INMARSAT units have a dedicated key that can be pressed for immediate action.	By adding the word "DISTRESS" in the first line of the message's preamble	Certain INMARSAT units have a dedicated key that can be pressed for immediate action, while other systems provide menu-driven features.	By transmitting the distress message on the U.S. Coast Guard's dedicated monitoring channel.	
4	1964	C	When crossing a bar in rough weather, you should enter on a(n) _____.	tidal bore	ebbing current	flood current	All of the above	
4	1965	B	Which statement concerning exposure to microwave signal radiation is TRUE?	There is minimal hazard potential as long as the Operator notifies other system users aboard the vessel that the potential exists.	The INMARSAT-B ray dome normally prevents nearby persons from being able to determine the direction of the internal antenna.	There is equally significant hazard potential from all INMARSAT antenna systems.	FCC type acceptance regulations require that radiated power be kept to a minimum so as to prevent hazard potential.	
4	1966	B	A sailing vessel with the wind coming from 090° relative would be _____.	close hauled on the starboard tack	reaching on the starboard tack	on a broad reach on the starboard tack	close hauled on the port tack	
4	1967	A	Define the acronym MSI.	Maritime Safety Information	Maritime Shipping Index	Maritime Satellite Indicator	Mariner Safety Intelligence	
4	1968	D	Which categories of NAVTEX messages may not be selectively rejected through receiver programming?	Navigational warnings	Weather warnings	SAR and distress alert information	All of the above	
4	1969	A	A sailing vessel with the wind coming from 290° relative would be _____.	on a close reach on a port tack	close hauled on a starboard tack	on a broad reach on a port tack	on a beam reach on a starboard tack	
4	1970	A	What product is considered a noxious liquid substance for regulatory purposes?	Octanol	Acetonitrile	Hog grease	Carbon black hose	
4	1971	A	Which category of NAVTEX messages may be rejected in some receivers, BUT SHOULD NOT?	Category L navigational warnings	Category A navigational warnings	SAR and distress alert information	Weather warnings	
4	1972	A	Which statement about sailing close-hauled is TRUE?	If you ease the sheets and change heading, you can sail faster but not so close to the wind.	If you ease the sheets you will be in irons.	If you sheet your sails closer to the centerline, you can sail closer to the wind and decrease leeway.	If you sheet your sails closer to the centerline, you will luff.	
4	1973	D	To ensure receipt of all relevant MSI, a NAVTEX receiver should be turned on at least how many hours prior to departure from port?	2	4	6	8	
4	1974	B	When experiencing heavy winds, you should reef sails to _____.	bring the sails parallel to the wind	reduce sail area exposed to the wind	allow the sails to catch more wind	remove all tension on the main and jib sheets	
4	1975	D	On a commercial fishing vessel, a wearable personal flotation device must be marked with the name of the _____.	vessel	assigned individual	owner of the device	Any of the above	
4	1976	D	A capsized small sail vessel is best righted when what part of the vessel is downwind?	Stern	Bow	Centerboard	Mast	
4	1977	A	A stay is _____.	standing rigging	a downhaul	a halyard	a jib	

4	1978	C	How should you try to right a capsized small sailing vessel?	Position all personnel at the stern and rock the vessel upright.	Position all personnel around the mast and lift the vessel upright.	Lock the centerboard in the down position, stand on the centerboard, and pull on a shroud or a halyard.	Put the centerboard in the up position and have all personnel haul in on the line attached to the mast.	
4	1979	C	A documented oceangoing fishing vessel is required to have emergency instructions posted if it _____.	exceeds 49 feet in length	is over 25 gross tons	carries more than 16 persons	has sleeping accommodations	
4	1980	D	What product is considered a noxious liquid substance for regulatory purposes?	Dodecyl methacrylate	Asphalt	Camphor oil	Latex	
4	1981	D	On a mobile offshore drilling unit it is required to _____.	inspect the lifesaving gear provided in any helicopter landing on the rig	check the Certificate of Inspection of any support vessel bringing hazardous materials to the rig	insure that engineering spaces are in a clean and sanitary condition	record the length of each abandonment drill in the rig's log book	
4	1982	B	Which system may be useful for messages, such as local storm warnings or a shore-to-ship distress alert, for which it is inappropriate to alert all ships in the satellite coverage area?	NAVTEX	EGC	AMVER	DSC	
4	1983	B	What is required in addition to the heat, fuel, and oxygen of the fire triangle to have a fire?	Electricity	Chain reaction	Pressure	Smoke	
4	1984	C	You have 550 tons of below deck tonnage including liquid mud. Your existing deck cargo is 120 tons with a VCG above the deck of 2.6 feet. What is the maximum additional deck cargo tonnage you are permitted to load? (See illustration D036DG, stability letter for M.V. Hudson)	20 tons	60 tons	120 tons	240 tons	D036DG
4	1985	B	Each emergency generator on a mobile offshore drilling unit, when tested, must be run under a full load for at least _____.	one hour	two hours	ten hours	four hours	
4	1986	B	Which statement is TRUE?	You need not keep a record of ground garbage dumped into the sea more than 25 miles offshore.	You must keep a record of garbage discharged in port to a shore facility.	You need not keep a record of garbage incinerated on the ship.	You must keep a record of the approximate weight of the garbage dumped.	
4	1987	A	When a fire drill is conducted on a mobile offshore drilling unit, the designated person in charge must ensure that _____.	all personnel report to their stations	each hose is brought to full pressure at the nozzle	at least three portable extinguishers are activated	All of the above	
4	1988	C	You have 590 tons of below deck tonnage. There is no liquid mud aboard. If you have 84 tons of cargo above deck with a VCG above the deck of 2.7 feet, what is the maximum allowed VCG of the remainder of the deck cargo that is permitted? (See illustration D036DG, stability letter for M.V. Hudson)	2.54 feet	2.85 feet	3.11 feet	3.55 feet	D036DG
4	1989	D	What is the proper method to fix running rigging to a cleat?	Half-hitches then a round turn	One round turn	A series of half-hitches	A round turn, figure eights, and a half-hitch	
4	1990	C	What product is considered a noxious liquid substance for regulatory purposes?	Acetonitrile	Molten sulfur	Dodecanol	Soybean oil	

4	1991	B	It is the responsibility of the person in charge to _____.	revise the operating manual when rig personnel change	be fully aware of the provisions in the operating manual	maintain the rig's construction portfolio	All of the above	
4	1992	A	A deep keel on a sailing vessel increases the_____.	resistance to lateral movement	length-depth ratio resulting in a faster hull design	height of the center of gravity above the hull resulting in a more stable vessel	mast height to compensate for increased lateral resistance	
4	1993	B	The person in charge of a mobile offshore drilling unit must insure that _____.	the Muster List ("Station Bill") is approved by the Coast Guard	the date of each fire extinguisher test is recorded	all personnel are trained to launch the survival craft	a fire drill is held at least once each day	
4	1994	A	Which kind(s) of broadcasts are available through Safety NET?	MSI and messages to pre-defined groups of subscribers	MSI and vessel traffic lists	Hourly NOAA weather broadcasts from the NWS	Coastal weather broadcasts	
4	1995	D	Who is responsible for insuring that each survival craft on a mobile offshore drilling unit is cleaned and inspected once a year?	The certificated lifeboatman assigned to that craft	The certificated able seaman assigned to that craft	The Coast Guard inspecting officer	The designated person in charge of the rig	
4	1996	D	You have 240 tons of below deck tonnage. There is no liquid mud aboard. If you have 360 tons of cargo above deck with a VCG above the deck of 2.9 feet, what is the maximum allowed VCG of the remainder of the deck cargo that is permitted? (See illustration D036DG, stability letter for M.V. Hudson)	1.35 feet	1.86 feet	2.56 feet	3.60 feet	D036DG
4	1997	D	Vessels to which Annex V to MARPOL 73/78 applies may discharge garbage containing plastics _____.	5 nautical miles from nearest land	12 nautical miles from nearest land	25 nautical miles from nearest land	None of the above	
4	1998	B	Which satellite system promulgated Maritime Safety Information?	AMVER	SafetyNET	NAVTEX	INMARSAT-M SES	-
4	1999	D	Which channel and mode should be used when initiating a distress alert transmission?	Channel 6 DSC	Channel 6 Radiotelephony	Channel 13 Radiotelephony and channel 16 DSC	Channel 70 DSC	
4	2000	B	What product is considered a noxious liquid substance for regulatory purposes?	Phosphoric acid	Nonane	Methyl ethyl ketone	Sulfur (molten)	
4	2001	D	The person in charge of a mobile offshore drilling unit must insure that _____.	each bilge pump is operated at least once a week	all personnel are provided with work vests	whistles and general alarm bells are tested once each day	the date and hour of each fire drill is recorded in the log	
4	2002	A	You have 420 tons of below deck tonnage and 150 tons of above deck cargo on board. You must load 135 tons of liquid mud below deck. How much more deck cargo can you load? (See the trim and stability letter for M.V. Hudson, illustration D036DG.)	90 tons	140 tons	155 tons	240 tons	D036DG
4	2003	A	Who is responsible for maintaining the logbook on a mobile offshore drilling unit?	The person in charge	The safety man	The rig superintendent	The driller	
4	2004	A	You have 420 tons of below deck tonnage and 180 tons of above deck cargo on board. You must load 140 tons of liquid mud below deck. How much more deck cargo can you load? (See illustration D036DG, stability letter for M.V. Hudson.)	60 tons	100 tons	180 tons	240 tons	D036DG

4	2005	D	If there is unsafe machinery on a mobile offshore drilling unit, who is responsible for reporting the existence of the unsafe condition to the Coast Guard?	The chief mechanic	The port engineer	The rig superintendent	The designated person in charge	
4	2006	B	You have 400 tons of below deck tonnage and 100 tons of above deck cargo on board. You must load 160 tons of liquid mud below deck. How much more deck cargo can you load? (See illustration D036DG, stability letter for M.V. Hudson.)	85 tons	135 tons	195 tons	245 tons	D036DG
4	2007	D	The bottom of the mast rests on the _____.	foot plate	sole plate	hounds	mast step	
4	2008	C	Your vessel measures 119 feet long by 17 feet in beam. If the natural rolling period at a draft of 5'-05" is 6 seconds, what is the GM?	1.14 feet	1.36 feet	1.55 feet	1.96 feet	
4	2009	A	Your vessel measures 114 feet long by 16 feet in beam. If the natural rolling period at a draft of 5'-06" is 6 seconds, what is the GM?	1.38 feet	1.53 feet	1.76 feet	1.98 feet	
4	2010	B	Your vessel measures 128 feet long by 21 feet in beam. If the natural rolling period at a draft of 7'-06" is 6 seconds, what is the GM?	1.56 feet	2.37 feet	2.55 feet	2.74 feet	
4	2011	B	What is the action that a GMDSS Radio Operator should take when a DSC distress alert is received?	No action is necessary, as the DSC control unit will automatically switch to the NBDP follow-on communications frequency.	The operator should immediately set continuous watch on the radiotelephone frequency that is associated with the frequency band on which the distress alert was received.	The Operator should immediately set continuous watch on VHF channel 70.	The Operator should immediately set continuous watch on the NBDP frequency that is associated with the frequency band on which the distress alert was received.	
4	2012	C	What is the primary purpose for Digital Selective Calling (DSC)?	DSC provides reception of weather and navigational warnings plus search and rescue information.	DSC provides low-cost, routine communications for the vessel operator.	DSC is to be used for transmitting and receiving distress alerts to and from other ships or coast radio stations via radio.	This aids SAR authorities in tracking a vessel's position by satellite.	
4	2013	C	What is the minimum number of lifeboats which MUST be carried on a mobile offshore drilling unit that is allowed to carry more than 30 persons?	4	3	2	1	
4	2014	D	Your vessel measures 131 feet long by 20 feet in beam. If the natural rolling period at a draft of 8'-03" is 6 seconds, what is the GM?	1.26 feet	1.74 feet	1.93 feet	2.15 feet	
4	2015	D	A shroud is _____.	a light sail	a topmast stay	a sheet	standing rigging	
4	2016	C	Your vessel measures 125 feet long by 17 feet in beam. If the natural rolling period at a draft of 7'-09" is 6 seconds, what is the GM?	0.95 foot	1.25 feet	1.55 feet	1.78 feet	

4	2017	C	A shipboard Oil Pollution Emergency Plan is required of _____.	all vessels, regardless of size and commercial application	any barge or ship constructed or operated in such a manner that no oil in any form can be carried aboard	an oil tanker of 150 gross tons and above, or other ship of 400 gross tons and above	an oil tanker of 400 gross tons and above, or other ships of 150 gross tons and above	
4	2018	C	When can routine communications be resumed on a frequency or channel on which radio silence has been imposed?	After determining that the frequency or channel appears to be no longer in use	After determining that geographic distance from the distress situation will prohibit any other signal from interfering with emergency communications	After the Rescue Coordination Center transmits a message on the frequency or channel being used for emergency communications stating that such traffic has concluded	Routine communications can resume if, in the Master's opinion, communications on that frequency or channel will not interfere with emergency communications.	
4	2019	B	You have 38 containers of ships stores each measuring 6'L by 6'B by 5'H and weighing 0.6 ton each. Each container is stowed on deck. What is the maximum VCG permitted of the remaining cargo if you are carrying rig water and load to maximum capacity? (See illustration D037DG, stability letter for M.V. Surveyor)	0.54 foot (0.16 meter)	1.06 feet (0.32 meter)	1.35 feet (0.41 meter)	1.64 feet (0.50 meter)	D037DG
4	2020	A	Free communication will adversely affect transverse stability only when the flooded space is _____.	off-center	on the centerline	completely flooded	open to the sea above and below the waterline	
4	2021	C	The sails are properly set and trimmed. As a vessel heads up from a beam reach to close hauled the _____.	true wind velocity increases	heeling moment decreases	side slip increases	jib sheet must be eased	
4	2022	B	Your drafts are: FWD 6'-02", AFT 6'-06". From past experience, you know that the vessel will increase her draft 1 inch for every 5 tons loaded. There is rig water on board and 15 tons of deck cargo. How many more tons of cargo can legally be loaded and still maintain the same trim?	none	20 tons	10 tons	5 tons	D037DG
4	2023	B	If you were to jibe in a strong wind, the part of the rigging most likely to fail would be the _____.	forestay	backstay	jumper stay	halyard	
4	2024	C	Which step should be taken, if possible, when the vessel must be abandoned because of a distress situation?	Alert the U.S. Coast Guard by using the survival craft's portable INMARSAT unit.	Program the SART and EPIRB to transmit the vessel's location and situation.	Place the SART and EPIRB in the "ON" position and secure them to the survival craft.	No additional steps are needed as the SART and EPIRB will both automatically float free and operate properly.	
4	2025	A	BOTH INTERNATIONAL AND INLAND You are under sail with the auxiliary engine running and the propeller engaged on a 15 meter sail vessel. Which statement is TRUE?	This condition is indicated by a conical shape, apex downwards.	You should maintain course and speed when approaching a power-driven vessel.	You must display two green lights in a vertical line at or near the masthead.	You are considered a sailing vessel as long as sail propulsion affects the vessel's maneuverability.	

4	2026	B	Which statement is TRUE concerning the gooseneck?	It is a sailing maneuver which brings the vessel's head through the wind.	It connects the boom to the mast and allows the boom to swing freely.	It is a sailing condition where there is a loss of air flow over the sails.	None of the above	
4	2027	A	Who is responsible for transmitting a message stating that distress communications have ceased?	The Rescue Coordination Center (RCC) controlling the distress communications	The vessel providing the initial communications with the distressed vessel	The Coast Radio Station (CRS) that was first contacted concerning the distress situation	No formal message must be transmitted as long as no distress-related communications have occurred after reasonable time.	
4	2028	B	Your drafts are: FWD 6'-01", AFT 6'-10". From past experience, you know that the vessel will increase her draft 1 inch for every 6 tons loaded. There is rig water on board and 11 tons of deck cargo. How many more tons of cargo can be loaded and still maintain the same trim?	6 tons	12 tons	18 tons	24 tons	D037DG
4	2029	B	A yawl is a sailing vessel with _____.	a single mast	two masts: with the mizzen stepped abaft the rudder post	two masts: with the mizzen stepped forward of the rudder post	two masts: a foremast and a mainmast	
4	2030	D	You have 60 tons of below deck tonnage and 220 tons of above deck cargo on board. You must load 240 tons of liquid mud below deck. How much more deck cargo can you load? (See illustration D036DG, stability letter for M.V. Hudson.)	65 tons	85 tons	110 tons	125 tons	D036DG
4	2031	D	Which condition is NOT necessary for a combustible liquid to burn?	The temperature of the substance must be equal to or above its fire point.	The air must contain oxygen in sufficient quantity.	The mixture of vapors with air must be within the "explosive range."	All of the above are necessary for a combustible liquid to burn.	
4	2032	B	What is the primary hazard, other than fire damage, associated with a class C fire?	Possibility of reflash	Electrocution or shock	Explosion	Flashover	
4	2033	A	How is "radio silence" imposed?	By the Rescue Coordination Center (RCC) controlling the distress communications on that frequency or channel	By the Coast Earth Station (CES) controlling the distress communications on that frequency or channel	By the Public Correspondence Station (PCS), controlling the distress communications on that frequency or channel	By the High Seas Service (HSS) controlling the distress communications on that frequency or channel.	
4	2034	B	You have 12 containers of rig supplies each measuring 10'L by 4'B by 5'H and weighing 2.0 tons each. Each container is stowed on deck. What is the maximum VCG permitted of the remaining cargo if you are carrying rig water and load to maximum capacity?	0.5 foot	0.9 foot	1.1 feet	1.6 feet	D037DG
4	2035	B	What is usually the first step for a GMDSS Radio Operator to take when initiating a distress priority message via INMARSAT?	Dialing the correct code on the telephone remote unit	Pressing a "distress button" on the equipment	Contacting the CES operator and announcing a distress condition is in existence	Contacting the CES operator using the radiotelephone distress procedure "Mayday"...etc.	

4	2036	B	Which system provides maximum communications range?	MF SITOR	INMARSAT	Digital Selective Calling on 8414.5KHz	VHF ARQ	
4	2037	A	Which system is most likely to be subject to fading or static interference?	HF SITOR	INMARSAT	Digital Selective Calling on channel 70	VHF ARQ	
4	2038	B	Which system is least likely to be subject to fading or static interference?	HF SITOR	INMARSAT	Digital Selective Calling on channel 70	VHF ARQ	
4	2039	C	You have approximately 14 tons of fish on deck. What will be the shift in the center of gravity after you shift the fish to the fish hold, a vertical distance of 6 feet? (total displacement is 210 tons)	0.2 foot	0.3 foot	0.4 foot	0.5 foot	
4	2040	C	You have 360 tons of below deck tonnage and 145 tons of above deck cargo on board. You must load 220 tons of liquid mud below deck. How much more deck cargo can you load? (See illustration D036DG, stability letter for M.V. Hudson.)	22 tons	48 tons	94 tons	239 tons	D036DG
4	2041	D	You are keeping the required garbage disposal records. The amount of garbage disposed must be stated in _____.	barrels of 55 gallon capacity	both kilos and pounds	both cubic meters and cubic feet	cubic meters	
4	2042	B	Which line would be used to hoist a sail?	Forestay	Halyard	Mainsheet	Foreguy	
4	2043	B	How does a coast radio station communicating by HF radio normally identify itself?	By its subscriber number	By its call sign	By its MMSI	By its MID	
4	2044	B	INTERNATIONAL AND INLAND You are under sail making 5 knots. The apparent wind is broad on the port beam at 10 knots. You see another sailing vessel dead ahead on a meeting course. What action is correct?	Both vessels must maneuver to avoid collision.	You must keep out of the way of the other vessel.	Only the other vessel must maneuver to avoid collision.	You are only required to maneuver if collision cannot be avoided by maneuver of the other vessel.	
4	2045	B	How often does a coast radio station that regularly broadcasts traffic lists transmit the list?	As often as is deemed necessary to effect delivery	No less often than every four hours	Only on an as-needed basis	Once per 24-hour period	
4	2046	D	Your drafts are: FWD 5'-11", AFT 6'-11". From past experience, you know that the vessel will increase her draft 1 inch for every 7 tons loaded. There is rig water on board and 16 tons of deck cargo. How many more tons of cargo can be loaded and still maintain the same trim?	8 tons	12 tons	10 tons	14 tons	D037DG
4	2047	A	The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.	280 tons	395 tons	750 tons	990 tons	ST-0048
4	2048	A	Your drafts are: FWD 6'-02", AFT 6'-08". From past experience, you know that the vessel will increase her draft 1 inch for every 6 tons loaded. There is rig water on board and 23 tons of deck cargo. How many more tons of cargo can be loaded and still maintain the same trim?	6 tons	12 tons	18 tons	24 tons	D037DG
4	2049	C	The bottom of the mast rests on a part of the keel called the mast _____.	foot	heel	step	sole	

4	2050	A	You have 160 tons of below deck tonnage and 300 tons of above deck cargo on board. You must load 110 tons of liquid mud below deck. How much more deck cargo can you load? (See illustration D036DG, stability letter for M.V. Hudson.)	55 tons	99 tons	140 tons	360 tons	D036DG
4	2051	B	You are standing a radio watch aboard the rig. A crew boat calls you on VHF channel 16. When you reply with your vessel name and call letters, you should request the crew boat to switch to an intership channel such as channel _____.	6	10	12	14	
4	2052	C	Which radio call-in plan is the most prudent?	The designated responsible person must be instructed to call the Coast Guard search and rescue authorities immediately if your call does not come in on schedule.	There must be a designated responsible person available at all times to receive your call.	There must be a designated responsible person who knows they are expecting your call at a certain time.	Two responsible persons should be designated so that one can relieve the other as necessary.	
4	2053	C	What is the international calling and distress channel found on all VHF-FM equipped drilling rigs?	Channel 1	Channel 10	Channel 16	Channel 68	
4	2054	A	Your vessel measures 126 feet (38 meters) long by 21 feet (6 meters) in beam. If the natural rolling period at a draft of 8 feet (2 meters) is 6 seconds, what is the GM?	2.4 feet (0.70 meters)	2.8 feet (0.85 meters)	3.0 feet (0.90 meters)	3.2 feet (0.98 meters)	
4	2055	D	What agency issues the Ship Station license for the VHF marine radio on a mobile offshore drilling unit?	U.S. Coast Guard	Department of Transportation	Federal Broadcast Authority	Federal Communications Commission	
4	2056	D	By regulation, cargo tank atmosphere must be inert before and during which operation?	Stripping	Loading	crude oil washing	All of the above	
4	2057	A	You cannot operate a VHF or SSB radiotelephone aboard a rig unless that station is licensed by the _____.	Federal Communications Commission	U.S. Coast Guard	Minerals Management Service	Department of Energy	
4	2058	D	By regulation, cargo tank atmosphere must be inert before and during which operation?	crude oil washing	Loading	discharging	All of the above	
4	2059	D	What standing rigging supports the mast in the fore-and-aft and athwartships directions?	Sheets and guys	Guys and vangs	Vangs and shrouds	Shrouds and stays	
4	2060	D	You have 400 tons of below deck tonnage and 230 tons of above deck cargo on board. You must load 220 tons of liquid mud below deck. How much more deck cargo can you load? (See illustration D036DG, stability letter for M.V. Hudson.)	60 tons	180 tons	240 tons	none	D036DG
4	2061	C	Where would you find the "call sign" or "call letters" of the radio station on your rig?	In the rig safety manual	On the Certificate of Inspection	On the Ship Station License	On the rig Watch Bill	
4	2062	D	You are running before the wind in a fresh breeze. The boom may be prevented from accidentally jibing by using a(n) _____.	buntline	clewline	outhaul	preventer	

4	2063	B	If there are a number of survivors in the water after abandoning ship, they should _____.	tie themselves to the unit so they won't drift with the current	form a small circular group to create a warmer pocket of water in the center of the circle	send the strongest swimmer to shore for assistance	form a raft by lashing their life preservers together	
4	2064	B	INTERNATIONAL AND INLAND You are under sail and overtaking a tug and tow. Which action is correct?	The power-driven tug must maneuver to avoid collision.	You must maneuver to avoid the tug and tow.	You must maneuver to avoid collision only if the tug is to leeward and the wind is on your port side.	Both vessels are required to maneuver to avoid collision.	
4	2065	D	By regulation, cargo tank atmosphere must be inert before and during which operation?	crude oil washing	topping off	stripping	All of the above	
4	2066	A	A boom vang _____.	holds the boom down and flattens the main sail	draws the head of the sail to windward	tautens the standing rigging	douses the gaff topsail	
4	2067	C	You are standing radio watch and monitoring VHF Channel 16 when you receive a call to your rig, TEXAS STAR, from a supply boat. What is the proper way to answer this call?	'This is TEXAS STAR. Pick a channel.'	'This is TEXAS STAR on Channel 16. Come back.'	'This is TEXAS STAR, WSR 1234, reply Channel 10.'	'Please stand by. We're busy right now.'	
4	2069	A	The metal horseshoe-shaped pieces used to bend a sail onto a stay are called_____.	hanks	shackles	warps	gudgeons	
4	2070	B	You have 360 tons of below deck tonnage and 210 tons of above deck cargo on board. You must load 100 tons of liquid mud below deck. How much more deck cargo can you load? (See illustration D036DG, stability letter for M.V. Hudson.)	25 tons	65 tons	95 tons	175 tons	D036DG
4	2071	C	The generators on your rig have shut down, leaving you without navigation lights. Which emergency signal would you transmit over the VHF radio to alert vessels in the area of your predicament?	Mayday, Mayday, Mayday	Pan, Pan, Pan	Security, Security, Security	Lights out, Lights out, Lights out	
4	2072	D	By regulation, cargo tank atmosphere must be inert before and during which operation?	stripping	topping off	gravitating	All of the above	
4	2073	C	If your rig is equipped with a SSB radio, what frequency would you use to initiate a distress call?	1982 kHz	2082 kHz	2182 kHz	2282 kHz	
4	2074	B	You have 4 containers of rig supplies each measuring 8'L by 8'B by 8'H and weighing 1.2 tons each. Each container is stowed on deck. What is the maximum VCG permitted of the remaining cargo if you are carrying rig water and load to maximum capacity? (See illustration D037DG, stability letter for M.V. Surveyor)	1.33 feet	1.68 feet	1.96 feet	2.16 feet	D037DG
4	2075	C	The SS NORTHLAND is loaded to drafts: FWD 28'-06", AFT 29'-10". The KG is 27.4 feet. Use the salmon pages of the Stability Data Reference Book to determine the angle of list if #6 starboard tank is fully loaded with 1624 tons of salt water ballast (VCG is 36.5 feet off the centerline).	3.7°	4.4°	5.0°	6.5°	
4	2076	D	A cargo tank that is initially gas freed, can be inerted by introducing inert gas by a process known as _____.	dilution	displacement	precipitation	Either A or B	

4	2077	C	BOTH INTERNATIONAL AND INLAND You are proceeding under sail with the auxiliary engine running and the propeller engaged. Which statement is TRUE?	If most of the propelling power comes from the sails, your vessel is considered a sailing vessel.	You must display a red light over a green light at the masthead.	In fog you must sound one prolonged blast at two-minute intervals when making way.	By day, you must display a black diamond shape forward.	
4	2078	B	A device fitted over the discharge opening on a relief valve consisting of one or two woven wire fabrics is called a flame _____.	stopper	screen	filter	restrictor	
4	2079	D	Your vessel displaces 479 tons. The existing deck cargo has a center of gravity of 3.0 feet above the deck and weighs 16 tons. If you load 23 tons of anchor and anchor chain with an estimated center of gravity of 9 inches above the deck, what is the final height of the CG above the deck?	0.33 foot	1.00 foot	1.45 feet	1.67 feet	
4	2080	D	You have 260 tons of below deck tonnage including liquid mud. Your existing deck cargo is 150 tons with a VCG above the deck of 2.2 feet. What is the maximum additional cargo tonnage you are permitted to load? (See illustration D036DG, stability letter for M.V. Hudson.)	110 tons	140 tons	180 tons	210 tons	D036DG
4	2081	A	On offshore drilling units, each inflatable liferaft must be serviced every _____.	12 months	24 months	36 months	48 months	
4	2082	C	On a tank barge constructed on or after July 1, 1951, regulations require that each cargo tank be equipped with a vent that has a diameter of not less than _____.	1.5 inches	2.0 inches	2.5 inches	3.0 inches	
4	2083	A	On offshore drilling units each inflatable liferaft that is not intended for davit launching must be stowed so as to float free or be _____.	equipped with a hydrostatic release	stowed in approved racks	located above the main deck area	replaced every 12 months	
4	2084	B	The sea painter of a lifeboat should be secured _____.	to the bow of the lifeboat	to an inboard thwart in the forward one-third of the boat	as close as possible to amidships of the lifeboat	anywhere along the inboard side of the boat	
4	2085	D	An offshore drilling unit must have enough inflatable liferafts to accommodate at least what percentage of the persons allowed?	20%	30%	50%	100%	
4	2086	D	A partially full tank causes a virtual rise in the height of the _____.	metacenter	center of buoyancy	center of flotation	center of gravity	
4	2087	C	The davit aboard a MODU is used to _____.	lower personnel down by a transfer basket	lower food and water to personnel in a liferaft	lower the liferaft down with its full complement	move equipment around the deck	
4	2088	B	If the OCMI has NOT granted an extension, free-fall lifeboats must be lowered into the water and launched with the assigned crew at least once every _____.	3 months	6 months	year	2 years	
4	2089	B	On a vessel carrying grades A, B, C or D cargoes, enclosed spaces where sources of vapor ignition are normally present shall NOT be segregated from cargo tanks by _____. (vessel constructed after 1970)	cofferdams	galleys	pump rooms	tanks used to carry liquids having a flash point of 150°F or above	

4	2090	A	You have 520 tons of below deck tonnage including liquid mud. Your existing deck cargo is 160 tons with a VCG above the deck of 2.7 feet. What is the maximum cargo tonnage you are permitted to load? (See the stability letter for the M.V. Hudson illustration D036DG.)	84 tons	160 tons	244 tons	317 tons	D036DG
4	2091	B	To inflate a davit launched liferaft you _____.	initially connect the compressed air nozzle to the inflation tube	pull the inflation lanyard	connect the hand pump to the inflation tube and pump it up	connect the helium nozzle to the inflation tube	
4	2092	D	According to regulations, cargo pumps in tank vessels carrying grade A, B, C, or D liquid cargo, shall be isolated from sources of vapor ignition by _____. (vessel constructed 1970)	cofferdams	general cargo spaces	passageways or living quarters	gastight bulkheads	
4	2093	B	The davit launched liferaft can be boarded _____.	from the water only	at the deck	by jumping down onto it	through the escape tube	
4	2094	C	Your vessel measures 122 feet long by 18 feet in beam. If the natural rolling period at a draft of 6'-09" is 5 seconds, what is the GM?	1.4 feet	2.1 feet	2.5 feet	2.9 feet	
4	2095	D	Sails may be wing and wing when _____.	close hauled	tacking	wearing	sailing with the wind aft	
4	2096	C	Steam driven pumps are considered, by regulations, sources of vapor ignition if the steam temperature is at least _____.	100°C	212°F	500°F	1200°F	
4	2097	A	If you reef a marconi mainsail, the sail area _____.	becomes less	becomes larger	does not change	moves aft	
4	2098	A	The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.	395 tons	530 tons	750 tons	990 tons	ST-0049
4	2099	D	Cargo hose carried on tank vessels shall be able to withstand a pressure of at least _____.	75 psi	100 psi	120 psi	150 psi	
4	2100	C	You have 180 tons of below deck tonnage including liquid mud. Your existing deck cargo is 300 tons with a VCG above the deck of 3.0 feet. What is the maximum additional cargo tonnage you are permitted to load? (See illustration D036DG, stability letter for M.V. Hudson.)	20 tons	60 tons	100 tons	400 tons	D036DG
4	2101	D	A person on a fixed or floating platform engaged in oil exploration located 10 nautical miles from nearest land MAY discharge _____.	food waste	food, ground to less than 1"	paper, ground to less than 1"	None of the above	
4	2102	D	The sails are properly set and trimmed. As a vessel heads up from a beam reach to close-hauled the _____.	apparent wind remains steady	heeling moment decreases	side slip decreases	speed decreases	
4	2103	A	All lifeboats, rescue boats, and rigid-type liferafts shall be stripped, cleaned, and thoroughly overhauled at least once every _____.	year	18 months	two years	30 months	
4	2104	A	Use the material in Section 1, the blue pages, of the Stability Data Reference Book. If the KG is 25.2 feet, and the drafts are: FWD 27'-11", AFT 28'-09"; at what angle will the vessel lose positive stability?	54°	59°	65°	71°	

4	2105	B	If a davit-launched liferaft aboard a MODU cannot be launched because of damage to the davit, you should _____.	inflate the liferaft on deck	roll the liferaft over the side	go to another liferaft station	get a saw and cut the liferaft free	
4	2106	C	In special cases, the Commandant of the Coast Guard may permit cargo piping to pass through machinery spaces, provided that the only cargo carried through such piping is(are) _____.	grades A or B	grades D or E	grade E	LFG	
4	2107	B	What is NOT running rigging?	Downhaul	Backstay	Halyard	Sheet	
4	2108	D	Air compressors are NOT permitted in which space(s) on a tank barge carrying grade A cargo?	A cargo handling room	A space in which cargo hose is stored	An enclosed space containing cargo piping	All of the above	
4	2109	A	A fire is discovered in the forepeak of a vessel at sea. The wind is from ahead at 35 knots. You should _____.	change course and put the stern to the wind	remain on course and hold speed	change course to put the wind on either beam and increase speed	remain on course but slack the speed	
4	2110	C	You have 650 tons of below deck tonnage including liquid mud. Your existing deck cargo is 140 tons with a VCG above the deck of 2.5 feet. What is the maximum additional cargo tonnage you are permitted to load? (See illustration D036DG, stability letter for M.V. Hudson.)	15 tons	48 tons	83 tons	140 tons	D036DG
4	2111	A	The hinge fitting used to attach the boom to the mast is the _____.	gooseneck	step	swivel	pintle	
4	2112	B	You are sailing the navigable waters of the United States. You must have a currently corrected copy (or extract) of the _____.	List of Lights	Tide Tables	Sailing Directions	H.O. 249 Sight Reduction Tables	
4	2113	C	The SS AMERICAN MARINER is ready to load the cargo listed. There is already 2865 tons of cargo on board with a KG of 27.8 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.	KG 26.2 feet	KG 27.4 feet	KG 28.5 feet	KG 29.5 feet	ST-0050
4	2114	D	You have hand launched an inflatable liferaft. What should be one of your FIRST actions after all persons have boarded the liferaft?	Open the equipment pack.	Inflate the liferaft floor.	Decide on food and water rations.	Cut the sea painter and clear the vessel.	
4	2116	A	You have 10 containers of rig supplies each measuring 10'L by 6'B by 6'H and weighing 1.8 tons each. Each container is stowed on deck. What is the maximum VCG permitted of the remaining cargo if you are carrying rig water and load to maximum capacity? (See illustration D037DG, stability letter for M.V. Surveyor)	0.94 foot	1.36 feet	1.78 feet	1.96 feet	D037DG
4	2118	C	You have 50 containers of ships stores each measuring 6'L by 4'B by 3'H and weighing 0.4 ton each. Each container is stowed on deck. What is the maximum VCG permitted of the remaining cargo if you are carrying rig water and load to maximum capacity?	1.50 feet	2.25 feet	2.66 feet	2.91 feet	D037DG
4	2119	B	Your vessel displaces 475 tons. The existing deck cargo has a center of gravity of 2.6 feet above the deck and weighs 22 tons. If you load 16 tons of ground tackle with an estimated center of gravity of 8 inches above the deck, what is the final height of the CG of the deck cargo?	1.64 feet	1.79 feet	1.96 feet	2.14 feet	

4	2120	B	You have 480 tons of below deck tonnage including liquid mud. Your existing deck cargo is 200 tons with a VCG above the deck of 2.8 feet. What is the maximum additional cargo tonnage you are permitted to load? (See illustration D036DG, stability letter for M.V. Hudson.)	34 tons	62 tons	134 tons	186 tons	D036DG
4	2121	B	A life float on a fishing vessel must be equipped with _____.	smoke flares	a life line	a hydrostatic release	a signal mirror	
4	2122	B	Your drafts are: FWD 6'-00", AFT 6'-06". From past experience, you know that the vessel will increase her draft 1 inch for every 6 tons loaded. There is rig water on board and 17 tons of deck cargo. How many more tons of cargo can be loaded and still maintain the same trim?	14 tons	18 tons	24 tons	33 tons	D037DG
4	2123	C	Your oceangoing vessel has medical waste to be disposed of ashore. How many hours advance notice must you give the port or terminal?	6	12	24	48	
4	2124	A	Use the material in Section 1, the blue pages, of the Stability Data Reference Book. If the KG is 25.8 feet, and the drafts are: FWD 15'-02", AFT 15'-10"; at what angle will the vessel lose positive stability?	73°	79°	87°	98°	
4	2125	B	Who should inspect and test an inflatable liferaft?	The Chief Mate	An approved servicing facility	Shipyard personnel	A certificated lifeboatman	
4	2126	D	Which spaces are required to be segregated from cargo tanks carrying grades A, B, C, or D cargoes?	Pump rooms	Enclosed deck spaces	Cofferdams	Navigation spaces	
4	2127	C	On vessels on an international voyage, each inflatable liferaft shall have a carrying capacity of not less than _____.	50 percent of all persons on board	75 percent of all persons on board	6 persons	10 persons	
4	2128	C	Your drafts are: FWD 5'-08", AFT 6'-04". From past experience, you know that the vessel will increase her draft 1 inch for every 7 tons loaded. There is rig water on board and 10 tons of deck cargo. How many more tons of cargo can be loaded and still maintain the same trim?	14.8 tons	18.0 tons	25.0 tons	32.0 tons	D037DG
4	2129	C	Which of the following statements relating to AMVER (Automated Mutual-assistance Vessel Rescue) is TRUE?	The AMVER system does not reduce the time lost for vessels responding to calls for assistance.	An AMVER participant is not relieved of the obligation to give 24 hour advance notice to the U.S. Coast Guard before entering a U.S. port from offshore.	There is no cost to the ship or owner for messages sent within the AMVER system.	An AMVER participant is under greater obligation to render assistance to a vessel in distress than a non-participant.	
4	2130	C	You have 300 tons of below deck tonnage including liquid mud. Your existing deck cargo is 180 tons with a VCG above the deck of 1.9 feet. What is the maximum additional cargo tonnage you are permitted to load? (See illustration D036DG, stability letter for M.V. Hudson.)	108 tons	124 tons	162 tons	342 tons	D036DG
4	2131	D	When a person is in shock, their skin will be _____.	warm and dry	warm and damp	cold and dry	cold and damp	
4	2132	C	On which vessels is GMDSS required?	All vessels capable of international voyages	Vessels operating outside of the range of VHF coastal radio stations	SOLAS Convention ships of 300 gross tonnage or more.	Coastal vessels of less than 300 gross tons	

4	2133	A	If a vessel is sagging, which kind of stress is placed on the sheer strake?	Compression	Racking	Tension	Thrust	
4	2134	D	The flammable limits of gasoline are 1.3 to 7.6 percent volume of the air. You are testing a tank that contained gasoline by using a combustible gas indicator. Under testing, the tank sample registers 55 on the instrument. What is the concentration of gases?	55%	5.50%	4.10%	0.70%	
4	2135	B	The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.	395 tons	530 tons	750 tons	990 tons	ST-0051
4	2136	B	A vessel's drafts are FWD 20'-08", AFT 20'-10". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the final drafts if 195 tons of cargo are discharged 76 feet forward of amidships.	FWD 19'-07", AFT 20'-10"	FWD 19'-09", AFT 21'-01"	FWD 20'-00", AFT 21'-00"	FWD 20'-01", AFT 21'-05"	
4	2137	A	Where would you find the FCC authorization for transmitting on your rig's EPIRB?	On the Ship Station License	On the side of the EPIRB transmitter	In the radio log	On the Certificate of Inspection	
4	2139	B	Use the material in Section 1, the blue pages, of the Stability Data Reference Book. If the KG is 24.0 feet, and the drafts are: FWD 28'-01", AFT 28'-06"; at what angle will the vessel lose positive stability?	64°	71°	77°	82°	
4	2140	A	You have 700 tons of below deck tonnage including liquid mud. Your existing deck cargo is 200 tons with a VCG above the deck of 3.0 feet. What is the maximum additional cargo tonnage you are permitted to load? (See illustration D036DG, stability letter for M.V. Hudson.)	20 tons	50 tons	80 tons	210 tons	D036DG
4	2141	D	How often is a drill on the use of the line throwing appliance required to be held on a mobile offshore drilling unit?	Once a month	Once a year	Once a week	Once every three months	
4	2142	D	What is meant by the term "overhaul" in firefighting?	Slow down the spread of fire by cooling adjacent structures	Cover the fire with foam	Smother the fire with a blanket or similar object	Break up solid objects to ensure that any deep seated fires are extinguished	
4	2146	B	Aboard damaged vessels, the MOST important consideration is preserving _____.	bilge pumping capacity	reserve buoyancy	level attitude	instability	
4	2147	C	Each life preserver must be readily accessible to the person for whom it is intended while he or she is _____.	at work, only	in his or her berthing area, only	BOTH at work and in his or her berthing area	None of the above	
4	2148	A	Your vessel's drafts are FWD 19'-03", AFT 21'-07". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the final drafts if 142 tons of fuel are pumped 86 feet aft.	FWD 18'-09", AFT 22'-01"	FWD 19'-00", AFT 21'-01"	FWD 19'-00", AFT 21'-08"	FWD 19'-01", AFT 21'-04"	
4	2149	B	On a barge carrying grade A cargo, who determines where smoking may be permitted during a loading operation?	The OCMI who issued the Certificate of Inspection	The certificated tankerman on duty	The vessel owner	Smoking is not permitted during a loading operation.	

4	2150	A	You have approximately 6 tons of fish on deck. What will be the shift in the center of gravity after you shift the fish to the fish hold, a vertical distance of 7 feet? (total displacement is 422 tons)	0.1 foot	0.3 foot	0.5 foot	0.9 foot	
4	2151	D	The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.	Available GM 6.9 ft	Available GM 5.3 ft	Available GM 4.1 ft	Available GM 3.8 ft	ST-0052
4	2152	D	You have 6 containers of ship stores each measuring 8'L by 4'B by 6'H and weighing 0.5 ton each. Each container is stowed on deck. What is the maximum VCG permitted of the remaining cargo if you are carrying rig water and load to maximum capacity? (See illustration D037DG, stability letter for M.V. Surveyor)	1.06 feet	1.32 feet	1.65 feet	1.90 feet	D037DG
4	2153	A	On offshore drilling units each ring life buoy must be marked, in a contrasting color, with the unit's _____.	name and port of registry	owner and port of registry	port of registry and identification number	name and owner	
4	2154	D	What is the basic concept of GMDSS?	Search and rescue authorities ashore can be alerted to a distress situation.	Shipping in the immediate vicinity of a ship in distress will be rapidly alerted.	Shoreside authorities and vessels can assist in a coordinated SAR operation with minimum delay.	All of the above	
4	2155	A	When sailing with the wind aft, a vessel may carry sails on both sides at the same time. The sails are _____.	wing and wing	luffed	reefed	cringled	
4	2156	A	The flammable limits of gasoline are 1.3 to 7.6 percent volume of the air. You are testing a tank that contained gasoline by using a combustible gas indicator. Under testing, the tank sample registered 55 on the instrument's dial. What is the concentration of flammable gases?	0.70%	4.10%	5.50%	55%	
4	2157	C	On offshore drilling units, each EPIRB or SART must be tested once every _____.	day	week	month	year	
4	2158	D	You have approximately 15 tons of fish on deck. What will be the shift in the center of gravity after you shift the fish to the fish hold, a vertical distance of 8 feet? (total displacement is 300 tons)	0.1 foot	0.2 foot	0.3 foot	0.4 foot	
4	2159	C	Your vessel displaces 528 tons. The existing cargo has a center of gravity of 2.9 feet above the deck and weighs 28 tons. If you load 14 tons of ground tackle with an estimated center of gravity of 9 inches above the deck, what is the final height of the CG of the deck cargo?	1.76 feet	1.93 feet	2.18 feet	2.43 feet	
4	2160	A	You have approximately 29 tons of fish on deck. What will be the shift in the center of gravity after you shift the fish to the fish hold, a vertical distance of 5 feet? (total displacement is 483 tons)	0.3 foot	0.4 foot	0.5 foot	0.6 foot	
4	2161	D	You are in a survival craft broadcasting a distress message. What information would be essential to your rescuers?	The nature of the distress	The time of day	Your radio call sign	Your position by latitude and longitude	
4	2162	D	Which tank barges require draft marks?	Tank barges over 50 GT	Tank barges over 100 GT	Notch barges over 1000 GT	All tank barges	

4	2163	B	You are approaching a small vessel and see that it has the signal flag "T" hoisted. What should you do?	Proceed on present course and speed since the vessel is stopped and making no way through the water.	Keep clear of the vessel because it is engaged in pair trawling.	Attempt to call the vessel on VHF radiotelephone because it requires assistance.	Keep clear of the vessel because it has a diver down.	
4	2164	D	Your vessel is damaged, listing to port and on occasion flopping to the same angle to starboard. It has a long, slow, sluggish roll around the angle of list. There is excessive trim by the stern with little freeboard aft. What action should you take FIRST to correct this situation?	Jettison any off-center topside weights to lower GM and correct the list.	Pump out any slack after double-bottom tanks to reduce free surface and increase freeboard aft.	Pump out the after peak and fill the forepeak to change the trim.	Press up any slack double-bottom tanks forward of the tipping center, then fill the forepeak if empty.	
4	2165	D	A schooner is a fore-and-aft rigged vessel with _____.	a single mast	two masts: with the mizzen stepped abaft the rudder post	two masts: with the mizzen stepped forward of the rudder post	at least two masts: a foremast and a mainmast	
4	2168	B	When a vessel is stationary and in a hogging condition, the main deck is under which type of stress?	compression	tension	shear	racking	
4	2169	B	The flammable limits of gasoline are 1.3 to 7.6 percent volume of air. You are testing a tank that contained gasoline by using a combustible gas indicator. Under testing, the tank sample caused the needle to move rapidly to 100 on the dial and remain there. What is the concentration of flammable gas?	0	1.3 to 7.6%	over 7.6%	over 100%	
4	2170	B	You have approximately 60 tons of fish on deck. What will be the shift in the center of gravity after you shift the fish to the fish hold, a vertical distance of 8 feet? (total displacement is 960 tons)	0.6 foot	0.5 foot	0.4 foot	0.3 foot	
4	2171	D	The approval period for a shipboard Oil Pollution Emergency Plan expires after _____.	two years	three years	four years	five years	
4	2172	A	Your vessel displaces 560 tons. The existing deck cargo has a center of gravity of 4.5 feet above the deck and weighs 34 tons. If you load 10 tons of ground tackle with an estimated center of gravity of 2.8 feet above the deck, what is the final height of the CG of the deck cargo?	4.11 feet	4.36 feet	4.57 feet	4.78 feet	
4	2173	B	Which statement concerning exposure to radiation is TRUE?	The INMARSAT unit's ray dome filters out potentially dangerous UV rays.	Certain INMARSAT systems will automatically transmit when called and can expose an individual to harmful radiation.	INMARSAT-A and B antennas are safe because they are omnidirectional.	An INMARSAT-C antenna must be carefully avoided because it focuses the transmitter's signal into a fine beam of energy.	
4	2174	C	You are testing a tank that contained gasoline by using a combustible gas indicator. Under testing, the tank sample caused the needle to move rapidly to 100 on the dial then fall to zero. What is the concentration of flammable gas?	Less than the flammable range	Within the flammable range	Over the flammable range	The explosimeter is defective and giving a false reading.	
4	2175	A	To keep injured survivors warm in the water after abandoning ship, they should _____.	be placed in the middle of a small circle formed by the other survivors in the water	float on their backs with their arms extended for maximum exposure to the air	remove their life preservers and hold on to the uninjured survivors	sip water at intervals of fifteen minutes	

4	2176	C	According to regulations, cargo pump rooms, on the tank vessels handling grades A, B, or C liquid cargo, shall be equipped with power ventilation of the exhaust type having capacity sufficient to effect a complete change of air in not more than _____.	1 minute	2 minutes	3 minutes	5 minutes	
4	2177	C	What is the primary equipment for receiving MSI?	SART	EPIRB	NAVTEX	INMARSAT-B	
4	2178	C	Your drafts are: FWD 6'-01", AFT 6'-05". From past experience, you know that the vessel will increase her draft by 1 inch for every 7 tons loaded. There is rig water on board and 20 tons of deck cargo. How many more tons of cargo can be loaded while maintaining the same trim?	none	10.5 tons	14.0 tons	17.5 tons	D037DG
4	2180	B	You have approximately 16 tons of fish on deck. What will be the shift in the center of gravity after you shift the fish to the fish hold, a vertical distance of 8 feet? (total displacement is 640 tons)	0.1 foot	0.2 foot	0.3 foot	0.4 foot	
4	2181	D	To prevent the spread of fire by conduction you should _____.	shut off all electrical power	close all openings to the area	remove combustibles from direct exposure	cool the bulkheads around the fire	
4	2182	D	Your drafts are: FWD 5'-08", AFT 6'-02". From past experience, you know that the vessel will increase her draft 1 inch for every 8 tons loaded. There is rig water on board and 11 tons of deck cargo. How many more tons of cargo can be loaded and still maintain the same trim?	None	10 tons	18 tons	24 tons	D037DG
4	2183	A	On offshore drilling units, all lifeboats are required to be marked with the _____.	name and port of the unit	owner and port of the unit	drilling location	builder	
4	2184	D	Your vessel is damaged and is listing to port. The rolling period is short. There is sufficient freeboard so that deck edge submersion is not a problem. What corrective action should be taken FIRST in regard to the vessel's stability?	Press up any slack double-bottom tanks to eliminate free surface	Flood any empty double-bottom tanks to add weight low and down	Jettison topside weights to reduce KG and KB	Shift any off-center weights from port to starboard	
4	2185	B	On offshore drilling units, all lifeboats are required to be marked with the _____.	name of the owner of the unit	number of persons allowed in the boat	drilling location of the unit	All of the above	
4	2186	D	Which statement is TRUE concerning cargo hose on tank barges?	Cargo hose must be able to withstand the shut-off head plus the static head of the cargo pump.	Cargo hose must be able to withstand the static head of the cargo pump but no less than 100 psi.	Cargo hose must be able to withstand the shut-off head less the static head of the cargo pump but no less than 100 psi.	Cargo hose must be able to withstand at least 150 psi.	
4	2187	D	What is a functional or carriage requirement for compulsory vessels?	A compulsory vessel must carry at least two licensed GMDSS Radio Operators.	A compulsory vessel must satisfy certain equipment carriage requirements that are determined by where the vessel sails.	A compulsory vessel must be able to transmit and respond to distress alerts.	All of the above	
4	2188	D	You have 6 containers of rig supplies each measuring 8'L by 4'B by 3'H and weighing 1.6 tons each. Each container is stowed on deck. What is the maximum VCG permitted of the remaining cargo if you are carrying rig water and load to maximum capacity?	0.4 foot	0.9 foot	1.75 feet	2.18 feet	D037DG

4	2189	A	Changing direction by bringing the stern of the vessel through the eye of the wind is known as _____.	jibing	running before the wind	tacking	reefing	
4	2190	C	You have approximately 24 tons of fish on deck. What will be the shift in the center of gravity after you shift the fish to the fish hold, a vertical distance of 8 feet? (total displacement is 540 tons)	0.14 foot	0.23 foot	0.36 foot	0.44 foot	
4	2191	B	A fishing vessel that is required to have a fireman's outfit, must have all of the following in the outfit except a _____.	flashlight	combustible gas indicator	self-contained breathing apparatus	fire axe	
4	2192	D	Your vessel displaces 689 tons and measures 123'L x 31'B. You ship a large wave on the after deck which measures 65'Lx 31'B. The weight of the water is estimated at 62 tons. What is the reduction in GM due to free surface before the water drains overboard?	5.51 feet	5.67 feet	5.89 feet	6.14 feet	
4	2193	A	On offshore drilling units, the lifeboats' fuel tanks must be emptied and the fuel changed at least once every _____.	12 months	24 months	36 months	48 months	
4	2194	C	Your vessel is damaged with no list, but down by the stern. There is progressive flooding and trim by the stern is increasing. What is the effect on transverse stability after the deck edge at the stern is submerged?	KB increases, increasing BM and therefore GM	KG increases due to the weight of the added water on deck	BM decreases from loss of water plane and greater volume.	There is no effect on transverse stability.	
4	2195	D	Who is charged with appointing persons to be in command of the lifeboats and(or) liferafts on a mobile offshore drilling unit?	Rig superintendent	Tool Pusher	Company man	Designated person in charge	
4	2196	C	INTERNATIONAL AND INLAND You are on a sailing vessel with the wind on the starboard side and are approaching another sailing vessel that has the wind on the port side. Which action should you take?	Reduce sail and hold course.	Alter course away from the other vessel.	Maintain course and speed.	Any maneuver to avoid collision.	
4	2197	A	A self-righting survival craft will return to an upright position provided that all personnel _____.	are seated with seat belts on and doors shut	are seated with seat belts on and doors open	are to shift to one side to right it	escape from the craft	
4	2198	D	Which statement is TRUE concerning a sailing vessel with the sails properly trimmed?	The more the sails are sheeted in, the greater your speed will be when sailing downwind.	As the sails are sheeted in, the vessel will heel less when close hauled.	As the sails are sheeted in on a close hauled course, speed will increase as the side forces on the vessel decrease.	Sheeting in the sails will allow the vessel to sail closer to the wind but will decrease speed.	
4	2199	B	Your vessel displaces 564 tons. The existing deck cargo has a center of gravity of 1.5 feet above the deck and weighs 41 tons. If you load 22 tons of ground tackle with an estimated center of gravity of 2.5 feet above the deck, what is the final height of the CG of the deck cargo?	1.62 feet	1.85 feet	2.10 feet	2.46 feet	
4	2200	A	To check stability, a weight of 35 tons is lifted with the jumbo boom, whose head is 35 feet from the ship's centerline. The clinometer shows a list of 7.0° with the weight suspended. Displacement including the weight is 14,000 tons. The GM in this condition is _____.	0.71 foot	0.95 foot	1.26 feet	2.01 feet	
4	2201	B	The name of the fishing vessel is NOT required to be marked on a(n) _____.	EPIRB	inflatable liferaft	life float	buoyant apparatus	

4	2202	C	Which approved lifesaving device is required for each person on board a motor vessel carrying passengers?	Buoyant cushion	Buoyant vest	Life jacket	Ring life buoy	
4	2203	D	Who is responsible for lowering the survival craft?	Roustabout	First man aboard	Last man aboard	Helmsman	
4	2204	B	Which communications functions must all vessels be capable of performing under GMDSS as defined by the International Maritime Organization?	Radio direction finding	Distress alerting to and from vessels, search and rescue coordination, on-scene communications, signals for locating, maritime safety information, general and bridge-to-bridge communications.	Communications in each of the operational ocean areas	All communications possible within the International SafetyNET service	
4	2205	A	You board an inflatable liferaft that has been hand launched from a sinking vessel. What should you do FIRST after everyone is onboard the liferaft?	Cut the painter.	Operate the radio equipment.	Open the equipment pack.	Ventilate the liferaft of CO2.	
4	2206	D	Which action will NOT reduce heeling of a vessel when sailing on a tack?	Heading up until your sails begin to luff	Easing sheets	Reefing sails	Changing to larger sails	
4	2207	B	You are keeping the required garbage disposal records. The amount of garbage disposed must be stated in _____.	both cubic meters and cubic feet	cubic meters	both kilos and pounds	barrels of 55 gallon capacity	
4	2208	B	Your 20-ton ketch-rigged sailing vessel is sailing close hauled on the port tack in a moderate breeze with all sails properly trimmed. You wish to bear off quickly to avoid a floating hazard. To utilize your sails to assist with the turn, you should _____.	slack the jib sheet	slack the mizzen sheet	put your rudder hard to port	All of the above	
4	2209	A	What are the health hazard ratings for a product of triethylbenzene?	1,1,1	2,2,2	0,1,1	Unavailable	
4	2210	A	To check stability, a weight of 10 tons is lifted with the jumbo boom whose head is 45 ft. from the ship's centerline. The clinometer show's a list of 5.0° with weight suspended. Displacement including the weight is 9,000 tons. The GM while in this condition is _____.	0.57 foot	0.72 foot	0.96 foot	1.25 feet	
4	2211	A	You discharge garbage overboard at sea. When recording your vessel's position as required, you must include _____.	latitude, longitude and estimated distance from shore	latitude, longitude and approximate depth of water	latitude, longitude, course, speed, and a copy of that days noon position slip	Latitude and longitude only	
4	2212	D	In order to maintain speed while changing course from a close reach to a broad reach, the sails should be _____.	lowered	reefed	hauled in	eased out	
4	2213	C	When abandoning a MODU, after launching the survival craft you should _____.	plot a course for the nearest land	take a vote on which direction you should go	stay in the immediate area	go in one direction until fuel runs out	

4	2214	C	Which statement concerning maintenance requirements is FALSE?	Compulsory vessels sailing in Sea Areas A1 and A2 must provide any one of the three maintenance options which are duplication of equipment, shore based or at-sea maintenance capability.	Compulsory vessels sailing in Areas A3 and A4 must provide any two of the three maintenance options which are duplication of equipment, shore based or at-sea maintenance capability.	If shore-based maintenance is used, maintenance services do not have to be completed or performance verified unless the vessel will be sailing to a non-US port.	Equipment warranties do not satisfy GMDSS maintenance requirements.	
4	2215	D	If help has not arrived in 10-12 hours after you abandon a MODU in a survival craft, you should _____.	go in one direction until the fuel runs out	plot a course for the nearest land	take a vote on which direction you should go	shut down the engine(s) and set the sea anchor	
4	2216	D	Which statement is generally correct regarding the maintenance requirements for ships under GMDSS?	Redundancy of functions of certain equipment will partially meet this requirement.	On-board maintenance provided by a person holding a GMDSS maintainer's license will partially meet the requirements.	Shoreside maintenance and scheduled tests and inspections will partially meet this requirement.	All of the above	
4	2217	A	Steering a survival craft broadside to the sea could cause it to _____.	capsize	run smoother	run faster	sink	
4	2218	D	The maximum length allowed between main, transverse bulkheads on a vessel is referred to as the _____.	floodable length	factor of subdivision	compartment standard	permissible length	
4	2219	A	Each buoyant work vest must be _____.	U.S. Coast Guard approved	marked with the name of the vessel	equipped with a water light	All of the above	
4	2220	C	The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.	395 tons	530 tons	750 tons	990 tons	ST-0053
4	2221	A	In heavy seas the helmsman should steer the survival craft _____.	into the seas	broadside to the seas	in the same direction as the seas	in a series of figure-eights	
4	2222	A	Which system is most likely to be affected by atmospheric disturbances?	MF/HF radiotelephony	VHF DSC	INMARSAT	SafetyNET	
4	2223	B	Knowing the compass heading that is 90° to the side of a MODU will enable the operator of a survival craft to initially steer _____.	into the wind	away in fire and smoke	directly to the standby boat	directly to the nearest land	
4	2224	B	Your vessel is drifting with the wind broad on the port beam. The marconi sail is set and flapping free. As you sheet in the maximum drive is attained when the sail _____.	is at right angles to the true wind	first takes the shape of an airfoil	is filled with a slight flap at the leech	is 45° from the apparent wind	
4	2225	B	Which system is least likely to be affected by atmospheric disturbances?	NAVTEX	INMARSAT	MF NBDP	HF NBDP	
4	2226	A	You are sailing on a close reach when a strong wind suddenly heels the vessel hard over. To reduce the heeling and yet maintain speed, you should _____.	ease the mainsheet and bear more away from the wind	haul in on the mainsheet and steer more towards the wind	haul in on the mainsheet and ease the jib sheet	ease all sheets and bear more into the wind	

4	2227	A	When the survival craft is supplied with bottles of compressed air they are used for _____.	an air supply for personnel	additional flotation	priming the sprinkler system	filling the self righting bags	
4	2228	D	Your sails are properly trimmed while on a reaching course. Changing to a close hauled course will _____.	require you to sheet in for best speed	result in a reduction of speed	cause a greater heeling force to leeward	All of the above	
4	2229	B	To get the best speed when tacking and using a mainsail and jib, the sails should be trimmed such that _____.	the jib is on one side of the vessel and the mainsail on the other	an air slot is formed between the two sails	one sail is as close to a right angle as possible to the other	as much of a gap as possible exists between the two sails in order to catch the most wind	
4	2230	C	To check stability, a weight of 40 tons is lifted with the jumbo boom, whose head is 40 feet from the ship's centerline. The clinometer shows a list of 6.5° with the weight suspended. Displacement including weight is 16,000 tons. The GM while in this condition is _____.	0.21 foot	0.43 foot	0.88 foot	1.02 feet	
4	2232	D	Your vessel is sailing on a port tack when a sudden gust of wind heels the vessel sharply to starboard. Which action will reduce the heeling of the vessel?	Attempt to sail the vessel closer to the wind	Ease the sheets to allow air flow to spill off the sail	Shift weight to the port side of the vessel	Any of the above	
4	2233	D	You are underway when a fire breaks out in the forward part of your vessel. If possible, you should _____.	call for assistance	abandon ship to windward	keep going at half speed	put the vessel's stern into the wind	
4	2234	B	As a vessel falls off the wind from close-hauled to a beam reach, the tendency for the vessel to move sideways through the water will _____.	increase	decrease	change only if the vessel comes about on the opposite tack	not change	
4	2235	A	You are aboard a vessel which is near a platform engaged in oil exploration. Under U.S. pollution regulations, you may NOT discharge garbage if you are within _____.	1650 feet (500 meters)	1750 feet (533 meters)	1970 feet (600 meters)	2500 feet (762 meters)	
4	2236	D	A vessel is limited to a maximum draft of 25'-11". The present drafts are: FWD 24'-10", AFT 23'-02". How much more cargo can be loaded and where should it be located if a drag of 18 inches is desired? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book)	345 tons 124 feet aft of the tipping center	525 tons 18 feet forward of the tipping center	640 tons 74 feet aft of the tipping center	690 tons 62 feet aft of the tipping center	
4	2237	D	Topside icing decreases vessel stability because it increases _____.	displacement	free surface	draft	KG	
4	2238	C	Which system has the least effective radius of operation?	HF SITOR	MF SITOR	VHF DSC	NAVTEX	
4	2239	C	You can slow or stop a sailing vessel by _____.	put the wind off the beam and sheet in	put the wind off the stern and ease all sheets	bring the vessel's head into the wind and let the sails luff	raise the centerboard when running before the wind	
4	2240	D	What is classified as a combustible liquid?	Acetaldehyde	Ethyl alcohol	Carbon tetrachloride	Tetraethylene glycol	
4	2241	C	If the survival craft is not loaded to full capacity, the personnel should be _____.	loaded more on the port side forward	loaded equally on both sides with more forward	loaded equally on both sides with more aft	allowed to sit anywhere	
4	2242	A	An example of a grade B product is _____.	piperyline	motor gasoline	kerosene	mineral spirits	
4	2243	A	Aboard a survival craft, ether can be used to _____.	start the engine in cold weather	aid in helping personnel breathe	prime the sprinkler system	prime the air supply	
4	2244	A	According to the Chemical Data Guide, the flash point for the grade B flammable liquid piperylene is _____.	-20°F	43°C	108°F	not available	

4	2245	D	The backup system on an electric start survival craft is a _____.	hydraulic system	pneumatic system	spare battery	hand crank	
4	2246	C	What would be classified as grade "C" petroleum product?	Reid vapor pressure of 14 psia, flash point of 60°F.	Reid vapor pressure of 7 psia, flash point of 85°F.	Reid vapor pressure of 5 psia, flash point of 70°F.	Reid vapor pressure above 8 1/2 psia but less than 14 psia.	
4	2247	C	When a rescue vessel approaches a survival craft in heavy seas, the person in charge of the survival craft should _____.	tie up to the rescue vessel	transfer only those personnel who are not seasick	wait for calmer weather before transferring personnel	transfer all personnel immediately	
4	2248	B	A product is classified at grade B when it has a Reid vapor pressure of _____.	7 psia and a flash point of 80°F	more than 8 1/2 psia but less than 14 psia and a flash point of 72°F	9 1/2 psia and a flash point of 95°F	above 14 psia	
4	2249	C	A cargo of 40 tons is to be lifted with a boom located 40 feet from the ship's centerline. The ship's displacement including the suspended cargo is 8,000 tons and the GM is 2 feet with cargo suspended. What will the list of the vessel be with the cargo suspended?	4.9°	5.2°	5.7°	6.0°	
4	2250	D	Which cargo is considered volatile?	Bunker C	Turkey-red oil	Sweet oil	iso-Propylamine	
4	2251	D	What will NOT decrease the stability of a vessel?	Topside icing	Running with a following sea	Using 35% of the fuel in a full tank	Lowering a weight suspended by a boom onto the deck	
4	2252	D	According to the Chemical Data Guide, piperylene possesses which characteristic?	Specific Gravity of 0.86	A boiling point of 43°F	A Reid vapor pressure of 14 psia	Insoluble in water	
4	2253	A	Using a sea anchor with the survival craft will _____.	reduce your drift rate	keep the survival craft from turning over	aid in recovering the survival craft	increase your visibility	
4	2254	C	According to the Chemical Data Guide, 1,3 - pentadiene possesses which characteristic?	Colorless liquid, mild aromatic odor	Pale yellow liquid, strong odor	Colorless liquid, faint odor	Straw-colored liquid, sweet-odor	
4	2255	D	The survival capsule is manufactured with fire retardant _____.	foam	marine plywood	steel	fiberglass	
4	2256	D	The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.	Available GM 6.8 ft	Available GM 5.4 ft	Available GM 4.1 ft	Available GM 3.6 ft	ST-0054
4	2257	C	The survival craft's engine is fueled with _____.	kerosene	unleaded gasoline	diesel oil	liquefied gas	
4	2258	D	According to the Chemical Data Guide, to what chemical family does 1,3 - pentadiene belong?	Unsaturated hydrocarbons	Esters	Phosphorus	Olefins	
4	2259	B	Use the material in Section 1, the blue pages, of the Stability Data Reference Book. If the KG is 24.2 feet, and the drafts are: FWD 22'-04", AFT 23'-00"; at what angle will the vessel lose positive stability?	72°	78°	86°	92°	
4	2260	D	You are making a heavy lift with the jumbo boom. Your vessel displaces 18,000 T. The 50-ton weight is on the pier, and its center is 75 feet to starboard of the centerline. The head of the boom is 112 feet above the base line, and the center of gravity of the lift when stowed on deck will be 56 feet above the base line. As the jumbo boom takes the strain, the ship lists 3.5°. What is the GM when the cargo is stowed?	3.19 feet	3.24 feet	3.40 feet	3.56 feet	
4	2261	A	If the engine of a survival craft does not start, check to see _____.	that the fuel valve is open	if the air supply system is open	if the water sprinkler system is open	if the limit switch is on	

4	2262	C	What is the Vapor pressure of ethylene oxide at 46 °C?	10.9 (psia)	38.5 (psia)	48.0 (psia)	15.2 (psia)	
4	2264	A	Where a propeller shaft passes through the hull, water is prevented from entering by means of a _____.	stuffing box	propeller boss	seacock	stop-water	
4	2265	B	A right-handed propeller will cause the survival craft to _____.	walk the stern to starboard in reverse	walk the stern to port in reverse	run faster than a left-handed propeller	right itself if capsized	
4	2266	A	Which fire extinguishing agent can NOT be used on an ethylenediamine?	Water foam	Dry chemical powder	Water fog	Alcohol foam	
4	2267	A	During the towing of a survival craft, a lookout should be on station to _____.	release the towline in an emergency	help the helmsman steer	look for food and water	check the water level in the bilge	
4	2268	D	To what chemical family does chlorallylene belong?	Alcohols	Esters	Glycol ethers	Substituted allyl	
4	2269	B	To what chemical family does ethylene oxide belong?	Glycol ethers	Alkylene oxides	Esters	Alcohols	
4	2270	B	When a vessel is inclined at a small angle the center of buoyancy will _____.	remain stationary	move toward the low side	move toward the high side	move to the height of the metacenter	
4	2271	C	When abandoning ship, after launching the motor lifeboat you should _____.	plot a course for the nearest land	take a vote on which direction you should go	stay in the immediate area	go in one direction until fuel runs out	
4	2272	C	According to the Chemical Data Guide, what is NOT a characteristic of allyl chloride?	It has a Reid vapor pressure of 10.3 (psig).	It is a clear to strawberry colored liquid.	It has sour odor.	It is classified as a grade B poison.	
4	2273	D	During an abandonment or drill, the first person to arrive at the survival craft should _____.	pass out food and water to personnel	open the doors and start the sprinkler system	activate the emergency release handle	open the doors and prepare the craft for boarding	
4	2274	B	A virtual rise in the center of gravity may be caused by _____.	filling a partially filled tank	using an on board crane to lift a freely swinging heavy object	emptying a partially filled tank	transferring ballast from the forepeak to the after peak	
4	2275	B	INTERNATIONAL AND INLAND Your 18-meter vessel is propelled by sail and power. What action is required when the engine is stopped?	Display a black diamond shape forward.	Remove the black cone shape from forward.	Remove the black balls (one at the masthead and one on each spreader).	Display a black cylindrical shape at the masthead.	
4	2276	D	What is the Reid vapor pressure of allyl chloride?	16.5 (psia)	14.0 (psia)	12.9 (psia)	10.3 (psia)	
4	2277	B	What periodic inspection is required in order to remain in compliance with the regulations regarding GMDSS ship radio station inspections?	U.S. Coast Guard annual inspection	FCC annual inspection	FCC inspection every five years	Periodic inspections not required if on board maintainers perform routine preventive maintenance	
4	2278	C	A cargo of 75 tons is to be lifted with a boom located 50 feet from the ship's centerline. The ship's displacement including the suspended cargo is 6,000 tons and GM is 6 feet. The list of the ship with the cargo suspended from the boom will be _____.	5.00°	5.40°	5.94°	6.50°	
4	2279	C	According to the Chemical Data Guide, when burning, the grade B flammable liquid, carbon disulfide produces _____.	phosgene gas	sulfuric acid gas	sulfur dioxide gas	carbon tetrachloride	
4	2280	C	A vessel displaces 140,000 cubic feet of saltwater in a light condition. After loading 7500 tons of cargo and 200 tons of fuel, water and stores, she is "full and down". The vessel's light displacement is _____.	3000 tons	3500 tons	4000 tons	4500 tons	

4	2281	B	When retrieving the survival craft, the winch operator should stop the winch and check _____.	that all personnel are seated in the craft	that the cable has not jumped any grooves on the drum	which way the wind is blowing	the hydraulic fluid level before lifting	
4	2283	C	Sails may be wing and wing when_____.	tacking	on a close reach	sailing with the wind aft	anchored or drifting	
4	2284	D	The flammable limits for crude oil are _____.	1% to 6% mixture in air	20% to 40% mixture in air	0% to 1% mixture in air	unavailable	
4	2285	D	When retrieving the survival craft, the helmsman should instruct the crewman to _____.	check the fuel level	open the doors	take the life preservers off	check that hooks are fully locked in place	
4	2286	B	What is the boiling point of carbon disulfide?	167°F	115°F	111°F	46°F	
4	2287	A	The limit switches on a MODUs survival-craft winch system _____.	stop the winch just before the craft reaches the final stowage position	limit the amount of cable on the drum	limit the ascent rate	stop the winch in case the craft weighs too much	
4	2288	B	A major health hazard of the product tert-butylamine is that it_____.	can be absorbed through the skin	causes irreversible damage to eye tissue	is a very unstable product	All of the above	
4	2289	A	According to the Chemical Data Guide, what is the Reid Vapor Pressure of tert-butylamine?	11 (psig)	12 (psig)	13 (psig)	14 (psig)	
4	2290	D	In order to calculate the TPI of a vessel, for any given draft, it is necessary to divide the area of the waterplane by _____.	35	120	240	420	
4	2291	A	The purpose for the bag or box on top of some survival craft is to _____.	right the craft in case of capsizing	increase area for radar detection	act as a sail in case of a power loss	steady the craft in heavy seas	
4	2292	B	Grade D liquids are those having flash points of _____.	80°F or less	greater than 80°F and less than 150°F	150°F or greater but less than 212°F	212°F or greater	
4	2294	D	Which extinguishing agent is NOT recommended in the Chemical Data Guide for use on a cyclohexane fire?	Foam	Carbon dioxide	Dry chemical	Water fog	
4	2295	A	All MODU personnel should be familiar with the survival craft's _____.	boarding and operating procedures	maintenance schedule	navigational systems	fuel consumption rates	
4	2296	B	Regulations require that cargo pumps in tank vessels carrying grade D liquid cargo shall be isolated from sources of vapor ignition by _____.	cofferdams	gastight bulkheads	passageways or living quarters	general cargo spaces	
4	2297	A	Each fire pump on a tankship must have a pressure gauge located at _____.	the pump discharge	the manifold connection	each fire station discharge	the pump station	
4	2298	B	The SS AMERICAN MARINER is ready to load the cargo listed. There is already 3684 tons of cargo on board with a KG of 28.4 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.	KG 27.0 feet	KG 27.6 feet	KG 28.2 feet	KG 28.8 feet	ST-0055
4	2299	A	The first treatment given to a person overcome by benzene vapor should be to _____.	remove them to fresh air	flush their face with water for about 5 minutes	stand them up and walk them around	remove their clothing and wrap them in blankets	
4	2300	B	A bulk freighter 580 ft. in length, 60 ft. beam, with a waterplane coefficient of .84 is floating in fresh water at a draft of 21 ft. How many long tons would it take to increase the mean draft 1"?	65.1	69.6	74.3	76.8	
4	2301	D	If water is rising in the bilge of a survival craft, you should first _____.	abandon the survival craft	check for cracks in the hull	shift all personnel to the stern	check the bilge drain plug	

4	2302	C	The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.	Available GM 6.8 ft	Available GM 5.4 ft	Available GM 4.1 ft	Available GM 3.6 ft	ST-0056
4	2303	C	The air cylinder bottles in the survival craft should be refilled with _____.	oxygen	nitrogen	compressed air	nitrogen and oxygen	
4	2304	B	Regulations require that cargo pumprooms handling grades D and/or E liquid cargo only shall be fitted with at LEAST how many ducts extended to the weather deck?	1	2	3	4	
4	2305	B	With the sprinkler system and air system on and all hatches shut, the survival craft will provide protection from a _____.	nuclear environment	fire and toxic environment	hurricane	drop greater than 10 feet	
4	2306	B	Which flash point would indicate a grade D combustible liquid?	40°F	95°F	79°F	155°F	
4	2307	B	Why does a centrifugal bilge pump require priming?	To lubricate shaft seals	Lack of ability to lift water level to impellers	Head pressure must equal discharge pressure	To overcome resistance of water in the discharge line	
4	2309	D	Your vessel is preparing to lift a weight of 30 tons with a boom whose head is 30 feet from the ship's centerline. The ship's displacement not including the weight lifted is 8,790 tons. KM is 21.5 ft; KG is 20.5 ft. The angle of list when the weight is lifted will be _____.	1.4°	2.8°	3.4°	5.8°	
4	2310	B	A fire pump may be used for other purposes if _____.	the other services are run off a reducing station with a pressure gage	one of the required pumps is kept available for use on the fire main system at all times	no relief valves are installed	all of the above conditions are met	
4	2311	A	What causes cavitation in a centrifugal pump?	Vapor pockets in the flow stream	Rough impeller surfaces	Worn wearing rings	Heavy fluid in the flow stream	
4	2312	A	Which statement is TRUE concerning the short exposure tolerance for Benzene?	3000 ppm is endurable for 30 - 60 minutes (single exposure)	500 - 1000 ppm for 30 - 60 minutes will produce definite irritation to the trachea	5.5 ppm for 1 minute is practically intolerable	No chronic effects noticed after 20,000 ppm exposure for 5 - 10 minutes	
4	2313	A	A hydraulic accumulator aboard a MODU is designed to _____.	store fluid under pressure	act as a fluid reservoir	provide overpressure relief	replenish fluid to a system	
4	2314	D	Cargo tanks on barges fitted with goose neck vents and flame screens are limited to carrying which grade of cargo?	A and below	B and below	C and below	D and E only	
4	2315	D	What is the function of an air receiver in the compressed air system on a MODU?	Condenses moisture	Provides overpressure protection	Purifies the air	Acts as an accumulator	
4	2316	C	The flammable limits for motor gasoline are _____.	5.3% to 7% mixture in air	0.9% to 5.9% mixture in air	1.4% to 7.6% mixture in air	2.5% to 12.8% mixture in air	
4	2317	A	The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the KG of the liquid load.	7.7 feet	9.1 feet	9.9 feet	10.6 feet	ST-0057
4	2318	B	A vessel's drafts are FWD 19'-02", AFT 23'-10". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the final drafts if 98 tons of fuel is pumped 116 feet forward.	FWD 19'-04", AFT 23'-06"	FWD 19'-07", AFT 23'-04"	FWD 19'-09", AFT 23'-01"	FWD 19'-09", AFT 23'-06"	

4	2319	C	What is NOT generally a characteristic of inhaling light naphtha?	Dizziness	Headache	Vomiting	Coughing	
4	2320	D	You are attempting to recover a mooring buoy. If you approach the object on the port tack, how would you slow the vessel as you draw near?	Quickly change to a starboard tack as you reach the object.	Shift the rudder from port to starboard several times as you reach the object.	Bring the wind so that it comes over the stern and ease all the sheets.	Bring the wind directly over the bow and allow the sails to luff.	
4	2322	A	What is NOT a requirement of cargo piping installed in tank vessels carrying grade D or E cargo ONLY?	The cargo piping system shall be fixed.	Flanged joints shall be used for pipe sizes exceeding 2 inches in diameter.	Piping through bunker spaces may be run through a pipe tunnel.	Connections at bulkheads must be made so that the plating does not form part of a flanged joint.	
4	2323	B	Why is electrical power preferred over mechanical power for driving heavy machinery on drilling rigs?	More fuel efficient	More flexible	Lighter	Less maintenance	
4	2324	A	How many fire extinguishers, and what type, are required on an unmanned oil barge during transfer operations, if the barge has no cargo pumps aboard?	One B-II	Two B-II	One B-V	Two A-II	
4	2325	D	The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.	395 tons	530 tons	750 tons	990 tons	ST-0058
4	2326	C	In order to carry a cargo of triethanolamine, what hull type is required?	I	II	III	IV	
4	2327	D	How many B-II fire extinguishers must be in the machinery space of a 75-foot long fishing vessel propelled by engines with 600 brake horsepower?	5	4	3	2	
4	2328	B	Which of the flash points would indicate a grade D combustible liquid?	65°F	87°F	155°F	160°F	
4	2329	B	The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.	Available GM 3.2 ft	Available GM 3.9 ft	Available GM 4.8 ft	Available GM 5.3 ft	ST-0059
4	2330	C	What is the purpose of a centerboard when sailing on a tack?	To reduce heeling of the vessel	To add weight stability	To reduce side slip of the vessel	To prevent the vessel from jibing	
4	2331	B	What prevents water running along the shaft of a leaking centrifugal pump from entering the shaft bearing?	Shaft seal	Water flinger	Drain hole	Lantern ring	
4	2332	D	The amount of LFG that may be loaded into a given tank is determined by _____.	checking the loading sheet	loading to within 1 percent of outage	loading to within 10 percent of the safety relief valve setting	filling to the maximum level indicated on the liquid level gauging device	
4	2333	A	You are sailing into a harbor with the intention of picking up your mooring. There is no current. Which statement(s) is(are) TRUE?	On a ketch, you will most likely strike the jib before making your final approach.	On a yawl, the last sail you will strike after you have picked up the mooring will normally be the mainsail.	On a sloop, if your initial approach is to be downwind you could slow your approach by striking the jib and letting your main sheet out as far as it will go.	All of the above are correct.	
4	2334	D	Which flash point would indicate a grade E combustible liquid?	80°F	75°F	140°F	155°F	

4	2335	A	What is required in addition to the heat, fuel, and oxygen of the fire triangle to have a fire?	Chain reaction	Electricity	Pressure	Smoke	
4	2336	C	While loading bulk oil in a barge, you notice oil on the water alongside. What should you do FIRST?	Search the vessel for leaks.	Notify the terminal superintendent.	Stop loading.	Notify the Coast Guard.	
4	2337	A	Sideways movement of the mast is resisted by the _____.	shrouds	halyards	sheets	forestay	
4	2338	C	In order to check your vessel's stability, a weight of 40 tons is lifted with the jumbo boom, the boom head being 50 feet from the ship's centerline. The clinometer is then carefully read and shows a list of 5°. The vessel's displacement is 8,000 tons including the suspended weight. What will be the metacentric height of the vessel at this time?	2.74 feet	2.80 feet	2.86 feet	2.93 feet	
4	2339	B	Sixty tons of cargo are raised with a boom 45 feet from the centerline. The vessel's displacement including the weight lifted is 16,400 tons. The angle of list caused by the suspended weight is 1.5°. KM is 28.75 ft., and BM is 17.25 ft. What is the KG?	11.65 feet	22.46 feet	23.15 feet	23.82 feet	
4	2341	B	The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.	Available GM 5.26 ft	Available GM 4.24 ft	Available GM 4.11 ft	Available GM 4.01 ft	ST-0060
4	2342	A	Your vessel's drafts are: FWD 13'-11", AFT 11'-09". How much more cargo can be loaded to have the vessel down to the freeboard draft? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book)	9069 tons	9172 tons	9207 tons	9244 tons	
4	2343	D	A marker pole, with a horseshoe buoy and a sea anchor attached, should be used to _____.	mark the position of a lost mooring	determine your vessel's sideslip underway	determine your speed through the water	indicate location of a man overboard	
4	2344	C	Use the material in Section 1, the blue pages, of the Stability Data Reference Book. If the KG is 25.2 feet, and the drafts are: FWD 22'-03", AFT 23'-01"; at what angle will the vessel lose positive stability?	92°	77°	68°	61°	
4	2345	D	During an annual FCC inspection _____.	all required documents and publications may have to be produced	licensed GMDSS radio operators may be required to demonstrate equipment competencies	all required equipment must be fully operational	All of the above	
4	2346	D	Grade E liquids are those having a flash point of _____.	150°F and below	below 150° and above 80°F	below 80°F	150°F and above	
4	2347	B	Which references should the GMDSS radio operator consult for information on the proper operation of the equipment?	ITU list of Equipment Operations	The manufacturer's operating manuals	47 CFR Part 80	Information available through SafetyNET channels	
4	2348	D	Regulations require that venting for cargo tanks in which only grades D or E liquids are to be transported shall, as a MINIMUM, be of which type? (tank barge constructed on or after July 1, 1951)	Straight vents open to atmosphere	Individual pressure vacuum relief valves	Branch vent lines connected to a vent header system	Gooseneck vents and flame screens	

4	2349	D	What should the GMDSS radio operator consult to review the proper procedures to be followed in distress situations under GMDSS?	IMO recommendations	The manufacturers instruction manuals	Part 90 of the FCC Rules and Regulations	Part 80, Subpart W of the FCC Rules and Regulations	
4	2350	C	What is NOT required of the cargo tank venting on a tank barge carrying grade A liquids?	Each cargo tank must have a vent.	A vent header must be fitted with a pressure-vacuum valve.	The diameter of the vent must be greater than 4 inches in diameter.	The vent must extend to a reasonable height above the weather deck.	
4	2351	C	How many B-II fire extinguishers must be in the machinery space of a 75-foot long fishing vessel propelled by engines with 2200 brake horsepower?	5	4	3	2	
4	2352	C	Your vessel's drafts are: FWD 18'-09", AFT 19'-01". How much more cargo can be loaded to have the vessel down to the freeboard draft? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book)	5333 tons	5420 tons	5649 tons	5775 tons	
4	2353	D	Which documents are required by GMDSS for vessels on international voyages (other than the Great Lakes)?	A copy of the IMO master plan of shore-based facilities	Station logs	Part 80 FCC Rules and Regulations	All of the above	
4	2354	D	Which documents are required by Part 80 of the FCC Rules for vessels on international voyages (other than the Great Lakes)?	Appropriate Safety Convention Certificate	International list of ship call signs (ITU list VI)	List of Radio-determination and Special Service Stations (ITU list VI)	All of the above	
4	2355	B	What publication/s should a GMDSS Operator consult regarding the proper set-up and operation of vessel equipment?	ITU Publications	The manufacturers instruction manuals	Part 90 of the FCC Rules and Regulations	Code of Federal Regulations, Title 47, Part 80, Subpart W`	
4	2356	A	Your vessel's drafts are: FWD 22'-04", AFT 21'-06". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the final drafts if: (1) 300 tons are loaded 122 feet forward of amidships; (2) 225 tons are loaded 150 feet aft of amidships; and 122 tons of fuel are pumped 72 feet aft.	FWD 22'-11", AFT 22'-09"	FWD 23'-00", AFT 23'-00"	FWD 23'-02", AFT 23'-01"	FWD 23'-03", AFT 23'-05"	
4	2357	C	When may a compulsory vessel not be allowed to leave port?	When the vessel is in an overloaded condition	When the vessel has arranged for both duplication of equipment AND shore-based maintenance	When the vessel has replaced a required piece of GMDSS-related equipment but its performance has not been verified or logged	When the vessel is carrying only two licensed GMDSS radio operators and is capable of performing all required functions.	
4	2358	C	Your vessel's drafts are FWD 20'-08", AFT 23'-00". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the final drafts if 195 tons of cargo are discharged 76 feet aft of amidships.	FWD 20'-05", AFT 21'-11"	FWD 20'-07", AFT 22'-01"	FWD 20'-11", AFT 22'-00"	FWD 21'-03", AFT 22'-04"	
4	2359	C	An example of a grade D product is _____.	heavy fuel oil	aviation gas grade 115/145	kerosene	commercial gasoline	
4	2360	B	According to regulations, ethylene oxide shall be loaded at a temperature below _____.	90°F	70°F	51°F	its flash point	

4	2361	A	What are the conditions, under GMDSS, whereby a ship is NOT allowed to depart from any port?	The vessel is not capable of performing all required distress and safety functions.	The vessel is carrying more than the required number of qualified GMDSS radio operators.	The vessel has a temporary waiver of its radio license and Safety Certificate.	The vessel is not carrying a GMDSS radio maintainer, but has provided for shoreside maintenance plus duplication of equipment if required.	
4	2362	D	A tankerman who permits or causes oil to go into a navigable waterway may be punished federally by _____.	fine	imprisonment	suspension or revocation of tankerman's document	All of the above	
4	2363	D	Use the material in Section 1, the blue pages, of the Stability Data Reference Book. If the KG is 22.0 feet, and the drafts are: FWD 23'-06", AFT 24'-03"; at what angle will the vessel lose positive stability?	76°	84°	89°	98°	
4	2364	A	Your vessel is limited to a maximum draft of 27'-06". The present drafts are: FWD 24'-10", AFT 26'-00". How much more cargo can be loaded and where should it be located if a drag of 1 foot is desired? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book)	950 tons 2.5 feet forward of the tipping center	950 tons 5.6 feet aft of amidships	1250 tons 4.3 feet forward of amidships	1250 tons 1.4 feet aft of the tipping center	
4	2365	D	The space around a pipe in a wellbore, the outer wall of which may be the wall of either the borehole or the casing, is the _____.	open hole	down hole	bore	annulus	
4	2366	A	What type of vent is required on a barge transporting No. 6 fuel oil?	Gooseneck vents fitted with flame screens	Pressure-vacuum	Branch vent line	Vent header	
4	2367	D	The person or company, either proprietor or lessee, actually operating an oil well or lease is the _____.	production company	company representative	drilling contractor	operator	
4	2368	C	The SS AMERICAN MARINER will sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the drafts.	FWD 22'-02", AFT 25'-08"	FWD 21'-07", AFT 26'-03"	FWD 20'-11", AFT 26'-09"	FWD 20'-09", AFT 26'-11"	ST-0061
4	2370	B	According to the Chemical Data Guide, the flammable limits of ethylene oxide are _____.	1.85 - 48.0%	2 - 100%	2.7 - 34%	1.9 - 88.0%	
4	2371	C	What does the term "head" mean when applied to a fire pump?	Length of the discharge pipe	Height of the discharge pipe	Difference between the discharge and suction pressures	Sum of discharge and suction pressures	
4	2372	D	Use the material in Section 1, the blue pages, of the Stability Data Reference Book. If the KG is 23.0 feet, and the drafts are: FWD 15'-03", AFT 15'-09"; at what angle will the vessel lose positive stability?	57°	72°	81°	90°	
4	2373	D	An uncontrolled flow of gas, oil, or other well fluids into the atmosphere is called a _____.	flow	breakout	kick	blowout	
4	2374	D	You are offloading garbage to another ship. Your records must identify that ship by name and show her _____.	home port	next port-of-call	Master	official number	
4	2375	B	An entry of water, gas, oil, or other formation fluid into the wellbore is called a _____.	blowout	kick	gusher	flow	

4	2376	B	A vessel is limited to a maximum draft of 26'-03". The present drafts are: FWD 21'-04", AFT 24'-06". How much more cargo can be loaded and where should it be located if a drag of 1 foot is desired? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book)	1676 tons 18 feet forward of amidships	1676 tons 18 feet forward of the tipping center	1972 tons 16 feet forward of amidships	1972 tons 16 feet forward of the tipping center	
4	2377	C	The operation of hoisting the drill stem out of and returning it to the wellbore is called a _____.	fish	thribble	trip	tour	
4	2378	D	A vessel's drafts are FWD 23'-01", AFT 24'-11". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the final drafts if: (1) 142 tons are discharged 122 feet forward of amidships; (2) 321 tons are loaded 82 feet forward of amidships; and (3) 74 tons are discharged 62 feet aft of amidships.	FWD 23'-05", AFT 24'-00"	FWD 23'-06", AFT 24'-02"	FWD 23'-07", AFT 24'-03"	FWD 23'-09", AFT 24'-05"	
4	2379	C	Regulations require that access to a cargo pumproom in a tank vessel carrying grade D liquid cargo, shall be _____.	away from galleys, living quarters, or navigation spaces	only from areas equipped with power ventilation systems	from the open deck	isolated from sources of vapor ignition	
4	2380	B	Access to a cargo pumproom on a tank vessel carrying grades A, B, C or D liquid cargoes shall be _____.	at least 13.1 feet away from the galleys, living quarters or navigation spaces	from the open deck	only from areas equipped with power ventilation systems	isolated from any part of the vessel which normally contains sources of vapor ignition	
4	2381	B	Beyond the area of state ownership in the U.S. outer continental shelf, the right to drill is controlled by the _____.	U.S. Coast Guard	Minerals Management Service	American Bureau of Shipping	U.S. Corps of Engineers	
4	2382	B	Your vessel's drafts are: FWD 18'-09", AFT 20'-03". How much more cargo can be loaded to have the vessel down to the freeboard draft? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book)	4521 tons	5349 tons	7242 tons	9750 tons	
4	2383	C	What is the minimum license requirement of a GMDSS radio operator?	Holding the marine radio operator permit is a pre-requisite before the GMDSS radio operator endorsement can be obtained.	Holding the general radiotelephone operator license with RADAR endorsement is sufficient.	Holding a valid GMDSS radio operator license is sufficient.	Holding either the general radiotelephone operator license or the first or second class radiotelegraph license with GMDSS radio maintainer's endorsement is sufficient.	
4	2384	C	Use the material in Section 1, the blue pages, of the Stability Data Reference Book. If the KG is 24.2 feet, and the drafts are: FWD 23'-04", AFT 24'-05"; at what angle will the vessel lose positive stability?	67°	71°	75°	79°	
4	2385	B	When drilling from a MODU, the conductor casing is landed with its top extending to just _____.	above the sea floor	below the drill floor	below sea level	below the sea floor	
4	2386	D	What are the vessel equipment and personnel requirements for GMDSS?	Two licensed GMDSS radio operators	Equipment carriage requirements	Distress alerting and response	All of the above	
4	2387	C	A magnetic compass card is marked in how many degrees?	90	180	360	400	

4	2388	B	At sea, all required GMDSS equipment (other than survival craft equipment) must be proven operational by _____.	daily testing	either A or C	operational use of the equipment	testing at least every 48 hours	
4	2389	B	The best way to test the INMARSAT-C terminal is to _____.	send a message to a shore terminal and wait for confirmation	compose and send a brief message to your own INMARSAT-C terminal	send a message to another ship terminal	see if the send light flashes, then proper operation has been confirmed	
4	2390	C	According to the Chemical Data Guide, ethylene oxide exhibits which fire and explosion hazard?	It breaks down into highly toxic fumes of bromides.	It reacts with water to provide flammable vapors.	It does not need oxygen for combustion.	Its flash point is 80.4°F.	
4	2391	B	When fire pumps are used for other than firefighting services, each pipe connecting the other service (except for branch lines used for deck washing) must have a _____.	check valve installed in the line	shut off valve at a manifold near the pump	quick disconnect union within ten feet of the pump	regulator in the line set at 125 psi	
4	2392	D	Your vessel's drafts are: FWD 13'-11", AFT 16'-05". How much more cargo can be loaded to have the vessel down to the freeboard draft? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book)	7109 tons	7316 tons	7432 tons	7779 tons	
4	2393	B	An integral part of a blowout preventer that serves as the closing element on an open hole, and whose ends do not fit around the drill pipe but seal against each other and shut off the space below completely is the _____.	shear ram	blind ram	pipe ram	annular ram	
4	2394	C	Your vessel's drafts are FWD 24'-09", AFT 27'-01". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the final drafts if 122 tons are discharged 76 feet aft of amidships, 128 tons are discharged 54 feet forward of amidships, and 68 tons of fuel is pumped 48 feet aft.	FWD 24'-01", AFT 26'-08"	FWD 24'-02", AFT 26'-11"	FWD 24'-04", AFT 26'-08"	FWD 24'-05", AFT 26'-02"	
4	2395	A	A negative metacentric height _____.	should always be immediately corrected	will always cause a vessel to capsize	always results from off-center weights	All of the above are correct	
4	2396	B	Your vessel's drafts are: FWD 17'-05", AFT 20'-01"; and the KG is 25.6 feet. What is the righting moment when the vessel is inclined to 45°? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book)	17,222 foot-tons	18,477 foot-tons	19,498 foot-tons	20,002 foot-tons	
4	2397	D	Proper GMDSS watchkeeping includes _____.	monitoring all required frequencies in the proper mode	reading all displays and/or printouts after silencing an alarm	notifying the Master of any distress alerts	All of the above	
4	2398	D	Proper GMDSS watchkeeping includes _____.	understanding the GMDSS console's normal operational indicators	maintaining a proper GMDSS radio station log	responding to and comprehending alarms	All of the above	
4	2399	C	Sixty (60) tons of cargo are raised with a heavy lift boom 45 feet from the centerline. The vessel's displacement including the weight lifted is 18,400 tons. The angle of list caused by the suspended weight is 1.5°, KM is 28.75 ft., and BM is 17.25 ft. What is the KG?	11.65 feet	22.85 feet	23.15 feet	23.82 feet	

4	2400	B	You are transferring a cargo of ethyl chloride and a small amount spills into the water around your vessel. The Chemical Data Guide indicates that the solubility of ethyl chloride in water will be _____.	negligible	slight	moderate	complete	
4	2401	B	A high-velocity fog stream can be used in fire fighting situations to drive heat and smoke ahead of the fire fighters in a passageway. This technique should only be used when _____.	using a 2-1/2 inch hose	there is an outlet for the smoke and heat	the fire is totally contained by the ship's structure	at least two fog streams can be used	
4	2402	D	How should the lifeboat sea painter be rigged?	Spliced into the ring on the stem post	Secured by a toggle around the outboard side of a forward thwart	Secured by a toggle to the stem post and led outboard of the falls	Secured to the inboard side of the forward thwart and led inboard of the falls	
4	2403	B	A frame with two, or sometimes four, arms through which are threaded the guidelines and which is used to keep the drill stem and bit in line with the center opening in the temporary guide base is the _____.	drill stem guide	guide frame	drill string frame	casing guide	
4	2404	A	Regulations require that cargo tanks carrying grades D or E liquids on tank barges be vented with _____.	gooseneck vents and flame screens	pressure-vacuum relief valves	branch vent lines and a vent header	forced draft blowers	
4	2405	C	The heavy three-, four-, or six-sided length of pipe suspended from the swivel through the rotary table and connected to the topmost joint of drill pipe to turn the drill stem as the rotary table turns is called the _____.	swivel	bail	kelly	cock	
4	2406	C	Your vessel is limited to a maximum draft of 26'-03". The present drafts are: FWD 22'-10", AFT 23'-08". How much more cargo can be loaded and where should it be located if a drag of 18 inches is desired? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book)	875 tons 6 feet aft of amidships	950 tons 8 feet forward of the tipping center	1323 tons 7 feet aft of the tipping center	1452 tons 7 feet aft of the tipping center	
4	2408	D	If your asphalt barge has operated more than 12 months in saltwater in the 24 month period since it was last dry-docked, when is it required to be hauled out again?	12 months since last dry-docking	18 months since last dry-docking	24 months since last dry-docking	36 months since last dry-docking	
4	2409	B	Your vessel's drafts are: FWD 14'-04", AFT 15'-02"; and the KG is 23.2 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the angle of list if the center of gravity is shifted 1.0 foot off the centerline.	9°	12°	15°	17°	
4	2410	C	Grade A flammable liquids are those with a Reid vapor pressure of _____.	5 to 8 1/2 psia	more than 8 1/2 psia but less than 14 psia	14 psia or more	None of the above	
4	2411	C	The storage device for nitrogen-pressurized hydraulic fluid, which is used in closing the blowout preventers is called the _____.	actuator	annulus	accumulator	annular preventer	
4	2412	A	Use the floodable length curve in Section 1, the blue pages, of the Stability Data Reference Book. If the curve represents 45 percent permeability and number 5 hold floods, the vessel will sink if the permeability exceeds what percent?	66%	70%	74%	79%	
4	2413	D	Signaling by flag hoist is completed by the vessel hoisting the _____.	signal AR	code flag N	code flag R	answering pennant	

4	2414	B	The flash point of a product is 100°F. What can happen if it is heated above 110°F?	It will boil off to the atmosphere.	It may burn and explode if an ignition source is present.	It will become less volatile and easier to handle.	None of the above	
4	2415	A	The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.	1171.5 tons	1311.0 tons	1503.0 tons	1710.5 tons	ST-0062
4	2416	C	Which statement is TRUE?	GMDSS radio logs are required to contain entries pertaining to all incidents connected to radio communication service which appear to be of importance to the safety of life at sea.	All distress communications must be entered in the GMDSS radio log.	Both of the above	None of the above	
4	2417	D	Which statement is TRUE?	Key letters or abbreviations may not be used in GMDSS radio logbooks under any circumstance.	Urgent communications do not need to be entered in the GMDSS radio log.	Both of the above	None of the above	
4	2418	D	Your vessel's drafts are: FWD 24'-07", AFT 25'-09"; and the KG is 23.2 feet. What is the righting moment when the vessel is inclined to 45°? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book)	28,008 foot-tons	29,778 foot-tons	30,428 foot-tons	32,880 foot-tons	
4	2419	C	Where should the GMDSS radio log be kept on board ship?	In the Captain's office	In the sea cabin	At the GMDSS operating position	Anywhere on board the vessel	
4	2420	A	What is an example of a grade A flammable liquid?	iso - Propylamine	Acetone	Morpholine	Ethyl acetate	
4	2421	A	How many degrees are there on a compass card?	360°	380°	390°	420°	
4	2422	A	What is the threshold limit value (TLV) for a product of PHTHALIC ANHYDRIDE?	1 ppm	2 ppm	3 ppm	4 ppm	
4	2423	A	A large valve, usually installed above the ram preventers, that forms a seal in the annular space between the pipe and wellbore or, if no pipe is present, on the wellbore itself is called the _____.	annular blowout preventer	annulus	accumulator	automatic choke	
4	2424	B	Which statement pertaining to log keeping is TRUE?	Entries relating to pre-voyage, pre-departure and daily tests are required	Both A and C	All distress, urgent and safety communications must be logged	Routine daily MF-HF and INMARSAT-C transmissions do not have to be logged	
4	2425	C	Every seaman injured on a fishing vessel must report the injury to the Master, individual in charge, or other agent of the employer _____.	before the end of the voyage	no later than 24 hours after the vessel docks	no later than 7 days after the injury occurred	only if the injury prevents him from working	
4	2426	A	Your vessel's drafts are: FWD 17'-05", AFT 20'-01"; and the KG is 22.4 feet. What is the righting moment when the vessel is inclined to 15°? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book)	10,697 foot-tons	12,340 foot-tons	13,980 foot-tons	17,520 foot-tons	

4	2427	C	What is the female section of a tool joint called?	Stem	Pin	Box	Stand	
4	2428	A	What is the flash point of iso - Hexane?	-10°Fahrenheit	20°Centigrade	68°Fahrenheit	152°Centigrade	
4	2429	B	A vessel trimmed by the stern has a _____.	list	drag	set	sheer	
4	2430	D	What is an example of a grade A flammable liquid?	Ethylene dibromide	Methyl alcohol	Nonyl phenol	Pentane	
4	2431	C	A device used to enlarge the size of an existing bore hole, having teeth arranged on its outside circumference to cut the formation as it rotates is a(n) _____.	enlarger bit	casing bit	hole opener	casing opener	
4	2432	C	You are loading propanolamine and spill a small quantity on deck. According to the Chemical Data Guide, you would expect its odor to be _____.	sweet	similar to turpentine	fishy	similar to ammonia	
4	2433	A	The pipe and special fittings used on floating offshore drilling rigs to establish a connection between the top of the wellbore, which is on the ocean floor, and the drilling equipment, located above the surface of the water, is called a _____.	marine riser pipe	marine casing	guide pipe	guide base casing	
4	2434	D	Your vessel's drafts are: FWD 14'-11", AFT 16'-01"; and the KG is 24.4 feet. What is the righting moment when the vessel is inclined to 30°? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book)	34,960 foot-tons	22,870 foot-tons	19,360 foot-tons	18,240 foot-tons	
4	2435	B	The joint of the riser in a marine riser system that compensates for heave, the up-and-down motion of a floater, is the _____.	flex joint	slip joint	heave joint	riser joint	
4	2436	B	Your vessel's drafts are FWD 20'-09", AFT 21'-01". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the final drafts if: (1) 320 tons are loaded 47 feet forward of amidships; (2) 82 tons are discharged 110 feet forward of amidships; and (3) 50 tons of fuel are pumped 60 feet forward.	FWD 21'-05", AFT 21'-00"	FWD 21'-06", AFT 21'-02"	FWD 21'-04", AFT 21'-05"	FWD 21'-04", AFT 21'-06"	
4	2437	A	A heavy steel device that is set on the sea floor and used as a drilling template in offshore drilling operations is called a _____.	temporary guide base	permanent guide base	guide frame	foundation template	
4	2438	A	Your vessel's drafts are FWD 20'-08", AFT 23'-00". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the final drafts if 95 tons of cargo are loaded 76 feet forward of amidships.	FWD 21'-01", AFT 22'-11"	FWD 20'-09", AFT 22'-09"	FWD 20'-09", AFT 23'-01"	FWD 20'-08", AFT 23'-00"	
4	2439	C	If you observe any situation which presents a safety or pollution hazard during fuel transfer operations which action should you take FIRST?	Close the valves at the manifold.	Notify the person in charge of the shore facility.	Shut down the operation.	Sound the general alarm.	
4	2440	C	According to the Chemical Data Guide, what does ethyl chloride produce when ignited?	Toxic fumes of oxides of nitrogen	Toxic fumes of lead	Poisonous phosgene gas	Poisonous chlorine gas	
4	2441	C	A set of clamps that are latched onto the drill pipe to allow the driller to raise or lower the drill string out of or into the hole are the _____.	lifts	collars	elevators	clamps	
4	2442	A	The international shore connection _____.	allows hook up of fire fighting water from shore facilities	satisfies pollution prevention requirements	allows emergency use of the fire main for deballasting	permits discharge of waste oil to shore facilities	

4	2443	D	The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the KG of the liquid load.	4.0 feet	5.6 feet	6.0 feet	6.8 feet	ST-0063
4	2444	B	When sending a DSC call, the vessel's _____.	position will automatically be sent	position will only be sent if the vessel is making a distress call	MMSI will indicate its ocean region	None of the above	
4	2445	C	What does the DSC control unit do if the GMDSS radio operator fails to insert updated information when initiating a DSC distress alert?	It will abort the transmission and set off an audible alarm that must be manually reset.	It will initiate the DSC distress alert but, as no information will be transmitted, rescue personnel will not be able to identify the vessel, its position or its situation.	It will initiate the DSC distress alert and default information will automatically be transmitted.	It will initiate the DSC distress alert, but any station receiving it will have to establish contact with the distressed vessel to determine its identity, position and situation.	
4	2446	C	If a GMDSS radio operator initiates a DSC distress transmission but does not insert a message, what happens?	The transmission is aborted and an alarm sounds to indicate this data must be provided by the operator.	The transmission is not initiated and "ERROR" is indicated on the display readout.	The transmission will be made with "default" information provided automatically.	The receiving station will poll the DSC unit of the vessel in distress to download the necessary information	
4	2447	B	The connected joints of pipe, usually made of three joints of pipe approximately 90 feet long, racked in the derrick when making a trip are called a _____.	string	stand	joint	standpipe	
4	2448	C	A person on a fixed or floating platform engaged in oil exploration MAY discharge food waste into the sea when the distance from the nearest land is at least _____.	3 nautical miles	5 nautical miles	12 nautical miles	25 nautical miles	
4	2449	B	You are loading epichlorohydrin onto your barge. According to the Chemical Data Guide, you could expect to detect a leak by smell if the concentration in air was at least _____.	2 ppm	10 - 25 ppm	40 ppm	105 ppm	
4	2450	B	During transfer operations, ethyl chloride spills into the water. According to the Chemical Data Guide, the ethyl chloride will boil off if the water temperature is above _____.	46°F	54°F	60°F	68°F	
4	2451	A	The end of the joint with the exterior threads is called the _____.	pin	stem	box	stand	
4	2452	C	Your vessel's drafts are: FWD 22'-03", AFT 22'-09"; and the KG is 23.2 feet. What is the righting moment when the vessel is inclined to 30°? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book)	18,790 foot-tons	22,200 foot-tons	25,520 foot-tons	44,080 foot-tons	
4	2453	C	A tool consisting of a handle and releasable chain used for turning pipe or fittings of a diameter larger than that which a pipe wrench would fit is called _____.	breakout wrench	makeup tongs	chain tongs	pipe spinner	
4	2454	D	In order to determine the fire and explosion hazard data for naphtha, you would use that information contained in the Chemical Data Guide for which chemical?	Treacle	Napthalene	Tar camphor	Mineral spirits	

4	2455	A	The element used to keep weight on the bit at a constant value in spite of up-and-down movement of a MODU during floating drilling operations is the heave or drill string _____.	compensator	tensioner	stabilizer	equalizer	
4	2456	B	According to the Chemical Data Guide, epichlorohydrin is a(n) _____.	corrosive	class B poison	oxidizer	explosive	
4	2457	A	What is a grooved pulley?	Sheave	Slip	Block	Reeve	
4	2458	C	To find the product Valeral in the Chemical Data Guide, you would have to look up the product _____.	Acrylic acid	iso-Valeraldehyde	n-Valeraldehyde	Vinyl acetate	
4	2459	B	A virtual rise in the center of gravity may be caused by _____.	filling a partially filled tank	using fuel from a pressed fuel tank	emptying a partially filled tank	transferring ballast from the forepeak to the after peak	
4	2460	C	During transfer operations, a quantity of propylamine spills on deck. According to the Chemical Data Guide, the correct procedure would be to _____.	immediately flush the spill with large quantities of fresh water	cover the contaminated surface with soda-ash-soaked lime solution	add sodium bisulfate on the contaminated surface and spray it down with water	move to a position upwind of the spill and allow the product to boil off	
4	2461	C	A special device that, when fitted into the rotary table, transmits torque to the kelly and simultaneously permits vertical movement of the kelly to make the hole is called a _____.	master bushing	kelly slips	kelly bushing	rotary bushing	
4	2462	A	If a leak occurred while loading diethylenetriamine, the chemical data guide indicates you would smell an odor similar to _____.	ammonia	rotten eggs	gasoline	None of the above	
4	2463	D	A heavy, thick-walled tube, usually steel, used between the drill pipe and the bit in the drill stem to weight the bit in order to improve its performance is called a _____.	heavy-walled drill pipe	tool joint	down hole tool	drill collar	
4	2464	B	The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the KG of the liquid load.	3.9 feet	4.3 feet	4.7 feet	5.1 feet	ST-0064
4	2465	A	The element that supports the weight of the drill stem, allows the drill stem to rotate, and provides a pressure-tight seal and passageway for the drilling mud to be pumped down the inside of the drill stem is called the _____.	swivel	bail	kelly	cock	
4	2466	C	According to regulations, access to a cargo pumproom in a tank vessel carrying grades C or D liquid cargo shall be _____.	from areas equipped with power ventilation	only from enclosed areas free from sources of vapor ignition	from the open deck	from within the vessel	
4	2467	C	To prevent the riser system from buckling under its own weight, upward tension is provided by the _____.	riser stabilizers	guideline tensioning system	riser tensioning system	guideline stabilizers	
4	2468	C	What is NOT classified as a flammable liquid?	Methyl alcohol	Heptane	Mineral spirits	iso-Hexane	
4	2469	B	According to the regulations, cargo pumprooms on tank vessels (constructed in 1965) handling grade C liquid cargo shall have power ventilation systems which can completely change the air in _____.	1 minute	3 minutes	5 minutes	10 minutes	

4	2470	C	According to the Chemical Data Guide, propylene oxide is assigned a health hazard rating of 3,2,2. The last digit "2" of the rating means _____.	chemical vapors will cause a slight smarting of the eyes or respiratory system if present in high concentrations	the chemical contains fairly severe skin irritants, causing second- and third-degree burns after a few minutes contact	the chemical poison presents some hazard if it enters the body and typically has threshold limits of 100 to 500 ppm	the chemical is severely hazardous, usually having threshold limits below 10 ppm	
4	2471	D	The device that allows a floating MODU to sway without bending the marine riser system is the _____.	yaw joint	sway joint	slip joint	flex or ball joint	
4	2472	D	Which cargo grade(s) are permitted by regulations to be carried on a barge in tanks fitted only with gooseneck vents and flame screens?	B only	B or C	C or D	D or E	
4	2473	C	In very deep water drilling, it becomes necessary to reduce tension caused by the weight of the riser joints. This is accomplished by using a(n) _____.	aluminum riser	tapered riser	buoyant riser	intermediate tensioner	
4	2474	D	Your vessel's drafts are FWD 19'-03", AFT 21'-07". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the final drafts if 142 tons of cargo are loaded 86 feet forward of amidships.	FWD 18'-09", AFT 21'-04"	FWD 18'-10", AFT 21'-01"	FWD 19'-10", AFT 21'-08"	FWD 19'-11", AFT 21'-04"	
4	2475	A	Your fishing vessel is required to have a compass. It must also have a(n) _____.	deviation table	radar reflector	electronic position-fixing device	copy of the Sailing Directions	
4	2476	D	Which tank barges require draft marks?	Notch barges over 1000 GT	Tank barges over 100 GT	Tank barges over 50 GT	All tank barges	
4	2478	B	Depending on its concentration, which product(s) can be classified as either grade D or E?	Sulfuric acid	Formaldehyde solutions 37% to 50%	1,1,1-trichloroethane	All of the above	
4	2479	A	Coast Guard regulations require a shipboard Oil Pollution Emergency Plan to be reviewed _____.	annually	once every two years	once every four years	once every five years	
4	2480	B	According to the Chemical Data Guide, what is NOT a recommended extinguishing agent for an ethyl chloride fire?	CO2	Alcohol foam	Dry chemical	Water fog	
4	2481	D	Which action should be taken on receipt of a GMDSS distress alert?	Read the display screen and/or printout.	Silence the alarm.	Listen for any follow up voice/telex transmission on the appropriate frequency.	All of the above	
4	2482	C	If a cargo of kerosene were considered "too lean" to explode, then it must be _____.	above the "explosive range"	within the "explosive range"	below the "explosive range"	None of the above	
4	2483	A	You are keeping the required garbage disposal records. The amount of garbage disposed must be stated in _____.	cubic meters	both cubic meters and cubic feet	both kilos and pounds	barrels of 55 gallon capacity	
4	2484	C	Who may approve cargo piping to pass through a machinery space for a barge designed to carry only grade E products?	American Bureau of Shipping	National Cargo Bureau	Commandant, U.S. Coast Guard	Vessel owner	
4	2485	C	A drilling bit which is doughnut shaped to permit recovery of the center portion of the hole drilled is called a _____.	diverter bit	hole reamer	core bit	conventional bit	
4	2486	A	The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.	Available GM 5.0 ft	Available GM 5.4 ft	Available GM 6.1 ft	Available GM 6.8 ft	ST-0065

4	2487	A	The wire ropes of the riser tensioning system are attached to the _____.	outer barrel of the telescoping joint	inner barrel of the telescoping joint	marine riser connector	ball joint	
4	2488	C	If a crew member is exposed to phenol by way of skin or eye contact, you should IMMEDIATELY _____.	administer oxygen	treat victim for shock	flush skin and eyes with water	give victim stimulant	
4	2489	D	According to the Chemical Data Guide, which extinguishing agent should be used on a petrolatum fire in an open area?	CO2	Dry chemical	Monoxide powders	Foam	
4	2490	D	Which extinguishing agent is effective in combating an isoprene fire?	Dry chemicals	CO2	Foam	All the above	
4	2491	D	The platform that supports the derrickman when tripping pipe is called the _____.	Texas deck	water table	stabbing board	monkey board	
4	2492	D	At sea, you are approaching a small vessel and see that it has the signal flag "P" hoisted. What should you do?	Proceed on present course and speed since the vessel is stopped and making no way through the water.	Keep clear of the vessel because it has a diver down.	Attempt to call the vessel on VHF radiotelephone because someone on board requires medical assistance.	Approach with caution because the vessel is a fishing vessel and its nets are fouled on an obstruction.	
4	2493	B	The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.	1171.5 tons	1311.0 tons	1503.0 tons	1710.5 tons	ST-0066
4	2494	A	An example of a grade C product is _____.	naphtha, vm and p	tridecanol	cottonseed oil	camphor oil	
4	2495	A	A series of trays with sieves that vibrate to remove cuttings from the circulating fluid in rotary drilling operations is called the _____.	shale shaker	settling pit	desilter	desander	
4	2496	B	What type of vent system would a barge of acrylonitrile have?	Open	Pressure-vacuum	Safety relief	Rupture disk	
4	2497	C	In MODU drilling operations, the term tripping means _____.	releasing the tongs from the drill pipe	welding hard metal to tool joints	hoisting drill pipe out of and returning it to the wellbore	sliding a joint of drill pipe down to the pipe rack ramp	
4	2498	A	Which product is volatile?	Benzene	Diesel fuel	Coal tar	Heavy industrial fuel oil	
4	2499	D	What is an example of a grade B flammable liquid?	Allyl alcohol	Phenol	Acetaldehyde	Carbon disulfide	
4	2500	D	According to the Chemical Data Guide, which extinguishing agent is NOT recommended for use in fighting an ethylamine fire?	Alcohol foam	Carbon dioxide	Dry chemical	Water fog	
4	2501	D	The SS NORTHLAND is loaded to drafts: FWD 20'-06", AFT 24'-00". The KG is 29.6 feet. Use the salmon pages of the Stability Data Reference Book to determine the angle of list if #6 starboard tank is fully loaded with 1624 tons of salt water ballast (VCG is 36.5 feet off the centerline).	3.4°	4.2°	4.9°	6.0°	
4	2502	B	The international shore connection _____.	permits discharge of waste oil	allows hook up of fire hoses from a dock or another vessel	satisfies pollution prevention requirements	allows emergency use of the fire main for deballasting	
4	2504	C	A reinspection of the vessel shall be made between which of the following months while the Certificate of Inspection is valid?	8 - 12 months	10 - 12 months	10 - 14 months	12 - 14 months	

4	2505	B	The helicopter deck of a MODU must be marked with the units identification, appropriate aiming circles, and a continuous line on the perimeter which is _____.	8 inches wide	16 inches wide	24 inches wide	32 inches wide	
4	2506	D	Grade E combustible liquids are those having flash points of _____.	80°F or less	greater than 80°F and less than 115°F	greater than 115°F and less than 150°F	150°F or greater	
4	2507	B	When using a crane for transferring personnel in a basket, the load hook must be equipped with a _____.	moused shackle	safety latch	safety belt for each rider	quick-release device	
4	2508	D	What is the TLV of cyclohexanol?	20 ppm	30 ppm	40 ppm	50 ppm	
4	2509	A	How many portable fire extinguishers are required in the cargo tank area of an unmanned tank barge during cargo transfer, if the barge has no cargo pumps of her own?	One	Two	Three	None	
4	2510	C	Camphor oil is classified as a _____.	Grade A flammable liquid	Grade C flammable liquid	Grade D combustible liquid	Grade E combustible liquid	
4	2511	A	When lowering a personnel net to pick up personnel from a boat, the personnel basket should be _____.	lowered over open water	tied to the vessel with a tag line	dropped in the water	tied to the rig with a tag line	
4	2512	B	Which of the following product(s) would be classified as grade E?	Gasoline	Bunker C	Kerosene	All of the above	
4	2513	C	The maximum number of personnel allowed on a personnel transfer basket is _____.	2	3	4	5	
4	2514	C	Your vessel's drafts are: FWD 14'-11", AFT 16'-01"; and the KG is 23.2 feet. What is the righting moment when the vessel is inclined to 15°? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book)	3,800 foot-tons	7,600 foot-tons	9,880 foot-tons	15,200 foot-tons	
4	2515	A	Before personnel are lifted from a vessel in a personnel basket, the vessel should be _____	directly under the boom	moving away from the boom	stopped dead in the water	tied to the boom	
4	2516	B	When heated to breakdown, tetraethyl or tetramethyl lead compounds emit highly toxic fumes of _____.	hydrogen gas	lead	bromide	phosgene	
4	2517	D	When may a personnel net be used to bring heavy equipment aboard an offshore drilling unit?	Only when the seas are calm	Only during rough weather	Only when there are no personnel in the net	Never	
4	2518	C	The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the KG of the liquid load.	4.0 feet	5.6 feet	6.0 feet	6.8 feet	ST-0067
4	2519	A	What are the venting requirements for a barge with a cargo of adiponitrile?	Pressure-vacuum relief valves	Open venting	Gooseneck vents fitted with flame screens	Closed venting with a vapor recovery system	
4	2520	C	According to the Chemical Data Guide, which material is not compatible with vinylidene chloride (inhibited)?	Aluminum	Nickel	Copper or copper alloys	Stainless steel	
4	2521	A	To enable tying down a helicopter on the landing area of a MODU, the landing deck must be fitted with _____.	recessed tie down points	hydraulically lifted bitts	air tuggers	fixed cleats	
4	2522	B	What best describes benzene?	Clear colorless liquid with an acrid odor	Clear colorless liquid with an aromatic odor	Brownish liquid, odorless	Brownish liquid, with an acrid odor	
4	2523	A	How many B-II fire extinguishers must be in the machinery space of a 75-foot long fishing vessel propelled by engines with 2000 brake horsepower?	2	3	4	5	
4	2524	D	What characteristic determines when a grade "C" product will start to vaporize?	Its filling density	Its ignition point	The flammable range	Its flash point	

4	2525	C	The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.	Available GM 5.26 ft	Available GM 4.24 ft	Available GM 4.11 ft	Available GM 4.01 ft	ST-0068
4	2526	B	The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.	Available GM 4.2 ft	Available GM 3.9 ft	Available GM 3.7 ft	Available GM 3.5 ft	ST-0069
4	2527	C	The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.	1171.5 tons	1311.0 tons	1503.0 tons	1710.5 tons	ST-0070
4	2528	B	Which action should you take after sending a false distress alert on VHF?	Send a DSC cancellation message on Ch-70.	Make a voice announcement to cancel the alert on Ch-16.	Make a voice announcement to cancel the alert on Ch-13.	Make a voice announcement to cancel the alert on Ch-22A.	
4	2529	C	What is a grade B flammable liquid?	Ethylene oxide	Paraldehyde	Chlorallylene	Allyl alcohol	
4	2530	B	Regulations require that cargo pumprooms on tank barges (constructed in 1965) carrying grades B or C liquid cargoes have power ventilation systems which can completely change the air in _____.	1 minute	3 minutes	5 minutes	10 minutes	
4	2531	D	What is the fundamental purpose for imposing radio silence?	To ensure that interference to proprietary communications is minimized	To ensure that only voice communications can be effected on the distress frequency or channel	To ensure that a distressed vessel will have a "window" twice each hour for transmitting routine messages	To ensure that interference on a particular frequency or channel to communications concerning emergency traffic is minimized	
4	2532	D	The appearance of Bunker C and fuel oils are dark colored liquids, and _____ .	soluble oils	slop oils	cutting oils	viscous oils	
4	2533	A	An obstruction on a helodeck is any object that might present a hazard to the _____.	rotor blades and landing gear	unloading of passengers	loading of cargo	pilot's visibility	
4	2534	A	According to the Chemical Data Guide, which reactive group(s) is/are not compatible with the products polybutene and o-xylene?	Nitric acid	Amides	Alcohols, glycols	Phenols, cresols	
4	2535	A	The connection facilities for the international shore connection must be located to provide access _____.	to each side of the vessel	as close as possible to the house	on the main deck	on each level of the accommodation space	
4	2536	C	To prevent the spread of fire by conduction you should _____.	shut off all electrical power	close all openings to the area	cool the bulkheads around the fire	remove combustibles from direct exposure	
4	2537	C	Which statement(s) is(are) TRUE regarding heaving-to?	A sloop will heave to with her jib and mainsail aback.	A ketch will heave to with her jib and mizzen aback.	A yawl will heave to with her jib aback, main sheet eased, and her mizzen sheeted in.	All of the above are correct.	
4	2538	D	According to the Chemical Data Guide, fuel oil number 6 has a flash point (degrees F) of _____.	65	80 - 100	110 - 140	150 - 430(cc)	
4	2539	D	If you came into contact with nitrobenzene while disconnecting the cargo hose, you should be aware that it is _____.	highly toxic when absorbed through the skin	a blood poison	a nerve poison	All of the above	

4	2540	C	The MINIMUM ventilation requirements for pumprooms on tank vessels (constructed in 1960) carrying grades B or C liquid cargo with machinery spaces located below the freeboard deck specify _____.	gooseneck vents and flame screens	that it be connected to a vent header system	that it be power ventilation	that it be fitted with at least two ducts extended to the weather deck	
4	2541	A	When lifting loads from a boat in heavy weather, the load should be taken when the boat _____.	reaches the crest	begins to fall	begins to rise	reaches the trough	
4	2542	C	Your vessel's drafts are: FWD 21'-08", AFT 24'-02". The LCG of the forepeak is 200 feet forward of amidships. How many tons of ballast must be pumped into the forepeak in order to have a drag of 15 inches? (Use the selected stability curves in Section 1, the blue pages, of the Stability Data Reference Book)	72 tons	77 tons	82 tons	87 tons	
4	2543	A	The boom stops are installed on an offshore crane to _____.	prevent the boom from being raised too high	prevent the boom from swinging	support the boom when not in use	prevent the boom from being lowered	
4	2544	D	Triethylene glycol fires may be extinguished by _____.	dry chemical	alcohol foam	carbon dioxide	All of the above	
4	2545	B	On a MODU crane, the boom indicator tells the operator what the boom angle is compared to the _____.	vertical position	horizontal position	boom stop angle	minimum radius angle	
4	2546	B	Your vessel's drafts are: FWD 24'-07", AFT 25'-09"; and the KG is 24.0 feet. What is the righting moment when the vessel is inclined to 15°? (Use the selected stability curves in Section 1, the blue pages, of the Stability Data Reference Book)	5,202 foot-tons	9,198 foot-tons	10,876 foot-tons	11,424 foot-tons	
4	2547	C	On a MODU crane, the load chart relates the allowable load to the combination of boom length and _____.	boom angle	boom strength	load radius	cable strength	
4	2548	D	According to regulations, which grade(s) of cargo may be carried in tanks that are vented only with gooseneck vents and flame screens?	B only	B or C	C or D	D or E	
4	2549	B	Vessels "A" and "B" are identical; however, "A" is more tender than "B". This means that "A" relative to "B" has a _____.	lower KG	smaller GM	smaller roll angle	larger GZ	
4	2550	B	According to regulations, how many B-II hand portable fire extinguishers are required in the cargo tank area of an unmanned, cargo pump-equipped tank barge engaged in transferring grade B flammable liquids?	One	Two	Three	None	
4	2551	D	The load chart of a MODU crane enables the operator to combine the load radius with boom length to determine the _____.	maximum counter weight required	minimum horsepower required	hoist rope strength	allowable load	

4	2552	C	When can routine communications be resumed when radio silence has been imposed?	After determining that the frequency or channel appears to be no longer in use	After determining that geographic distance from the distress situation will prohibit any other signal from interfering with emergency communications	Routine communications can resume after the Rescue Coordination Center transmits a message on the frequency or channel being used for emergency communications stating that such traffic has concluded.	If, in the Master's opinion, communications on that frequency will interfere with emergency communications	
4	2553	A	What is meant by the term "radio silence"?	Stations not directly involved with the on-going distress communications may not transmit on the distress frequency or channel	Stations remaining off the air to safeguard proprietary information	Two three-minute silent periods, at 15 and 45 minutes after the hour, that provide a transmitting "window" for distressed vessels to transmit distress alerts using J3E	Communications on a distress frequency or channel is banned for 24 hours following the cessation of the distress traffic	
4	2554	A	How is "radio silence" imposed?	By the On Scene Coordinator (OSC)	By the Coast Earth Station (CES) controlling the distress communications on that frequency	It is imposed by the Public Correspondence Station (PCS) controlling the distress communications on that frequency or channel	It is imposed by the High Seas Service (HSS) controlling the distress communications on that frequency or channel	
4	2555	C	When hoisting personnel from a vessel, with the MODU cranes, the crane operator must assure that _____.	the personnel carrier remains directly over the vessel	all personnel are inside the net type carrier	the personnel carrier remains directly over water	he does not swing the load until it is above the landing area	
4	2556	A	Regulations require that pumprooms on tank vessels carrying grade C liquid cargo with machinery spaces below the freeboard deck be ventilated with _____.	power ventilation	gooseneck vents and flame screens	at least two ducts extending to the weather deck	a vent header system	
4	2557	B	When transferring personnel with a MODU crane, the weight of the loaded personnel carrier must not exceed _____.	1/2 of the static rated load at the lift radius	1/3 of the static rated load at the lift radius	1/2 of the breaking strength of the hoist rope times the parts of line used	1/3 of the breaking strength of the hoist rope times the parts of line used	
4	2558	A	Grade C liquids are those having a Reid vapor pressure of _____.	8-1/2 psi or less	8-1/2 psi or more	14 psi or less	14 psi or more	
4	2559	C	What is NOT a grade B flammable liquid?	tert-Butylamine	Allyl chloride	Ethyl chloride	Carbon disulfide	
4	2560	C	Regulations require that cargo tanks in which grades B or C liquids are carried must be vented with which of the following?	Gooseneck vents	Flame screens	Pressure vacuum relief valves	Forced draft blowers	
4	2561	D	The weight of the loaded personnel carrier, when transferring personnel from a MODU with a crane, must not exceed _____.	2/3 of the static rated load at the lift radius	1/2 of the static rated load at the lift radius	1/5 of the breaking strength of the hoist rope times the parts of the line used	1/10 of the breaking strength of the hoist rope times the parts of line used	

4	2562	C	How many B-II fire extinguishers must be in the machinery space of a 175-foot long fishing vessel propelled by engines with 4000 brake horsepower?	2	3	4	5	
4	2563	B	The hoist line primarily used for lifting personnel on MODU cranes is called the _____.	personnel line	whip line	main hoist line	pendant	
4	2564	C	Use the floodable length curve in Section 1, the blue pages, of the Stability Data Reference Book. If the curve represents 45 percent permeability, and holds 1 and 2 flood, the vessel will sink if the permeability exceeds what percent?	19	24	32	39	
4	2565	C	Annual inspection of MODU cranes shall be conducted by _____.	U.S. Coast Guard	the person in charge	a qualified inspector	the crane operator	
4	2566	D	LFG tank and pipeline maintenance should include _____.	exclusion of all sand and solid matter	cleaning with clean fresh or sea water	examination for fractures and pitting	All of the above	
4	2567	A	A MODU crane which has been idle for a period of over six months shall be inspected to the same standards as a _____.	yearly inspection	quarterly inspection	monthly inspection	weekly inspection	
4	2568	C	Your vessel's drafts are: FWD 27'-06", AFT 28'-02"; and the KG is 21.3 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 15° inclination.	0.3 foot	1.3 feet	1.5 feet	1.8 feet	
4	2569	A	Your vessel's drafts are: FWD 22'-03", AFT 22'-09"; and the KG is 24.4 feet. What is the righting moment when the vessel is inclined to 15°? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book)	5,800 foot-tons	8,640 foot-tons	12,760 foot-tons	15,080 foot-tons	
4	2570	A	What is NOT a requirement of the reinspection for a tank barge with a certificate of inspection valid for two years?	The reinspection will be made between the fourteenth and sixteenth months.	The inspector shall examine all accessible parts of the vessels's hull.	The inspector shall examine the vessel's machinery as well as equipment.	The scope of the reinspection shall be the same as for the inspection for certification, but in less detail.	
4	2571	A	You have abandoned ship in rough weather. After picking up other survivors in your liferaft, what should you do next?	Close up the entrances.	Top up the buoyancy tubes.	Prepare for the arrival of rescue units.	Decide on food and water rations.	
4	2572	B	The radiotelephone urgency signal is _____.	mayday	pan pan	securite	seelonce feenee	
4	2573	C	Medical treatment aboard a MODU should not go beyond examination and emergency care without first consulting _____.	the designated medic aboard	the shore based superintendent	a medical doctor	the approved company medical manual	
4	2574	B	Your vessel's drafts are: FWD 27'-06", AFT 28'-02"; and the KG is 23.1 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 60° inclination.	0.9 foot	1.8 feet	2.7 feet	4.5 feet	
4	2575	C	The "urgent" priority should be used for messages _____.	concerning the Safety of Life at Sea (SOLAS)	detailing important navigational warnings	containing information concerning the safety of a mobile unit or person	concerning on-scene communications	

4	2576	A	When the GMDSS Radio Operator on watch hears "SECURITE" spoken three times he can expect to receive a message concerning _____.	the safety of navigation or important meteorological warnings	the safety of a vessel or a person is in jeopardy	a vessel in need of immediate assistance	a coast station traffic list	
4	2577	A	The radiotelephone safety signal is _____.	"securite" repeated 3 times	"safety" repeated 3 times	"pan pan" repeated 3 times	"securite securite" repeated 3 times	
4	2578	C	Your vessel displaces 9,000 tons and has a KG of 21.2 feet. What will be the length of the remaining righting arm at an angle of inclination of 30° if the center of gravity shifts 2.6 feet transversely? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book)	3.8 feet	2.2 feet	1.4 feet	0.9 foot	
4	2579	B	What is the most appropriate action for a GMDSS radio operator to take in a distress situation where immediate help is needed, but the vessel is not sinking nor needs to be abandoned?	Switch off EPIRB and SART manually.	Transmit distress call by MF/HF, VHF or INMARSAT.	Notify the RCC (Rescue Coordination Center) through VHF FM on channel 13.	Transmit distress call by activating the radiotelegraph automatic alarm signal.	
4	2580	A	If your JP-5 barge has operated in saltwater for less than 1 month in the 12 month period since it was last dry-docked, when is it required to be hauled out again?	60 months since last dry-docking	36 months since last dry-docking	24 months since last dry-docking	12 months since last dry-docking	
4	2581	A	A continuous watertight bulkhead on a MODU is normally also a(n) _____.	structural bulkhead	exterior bulkhead	centerline bulkhead	joiner bulkhead	
4	2582	D	When the height of the metacenter is the same as the height of the center of gravity, the metacentric height is equal to _____.	the height of the metacenter	the height of the center of gravity	half the height of the metacenter	zero	
4	2583	A	How can rescue personnel detect that a SART is transmitting in the immediate vicinity?	The SART's blips on the PPI will begin arcing and eventually become concentric circles.	The DSC unit will react to the SART's signal and respond with the two-tone autoalarm.	The SART can provide an approximate location to within a two nautical mile radius per IMO standards.	The SART signal appears as a target which comes and goes; the effect of heavy swells on a SART.	
4	2584	B	The grade C flammable liquid phenylethane is found in the Chemical Data Guide under the chemical name _____.	ethyl cyanide	ethylbenzene	ethyl acetate	muriatic ether	
4	2585	B	Vertical partitions which provide strength and compartmentalization on a MODU are called _____.	decks	bulkheads	joiner work	walls	
4	2586	C	To which group of hydrocarbons do Benzene and Toluene belong?	Ketone	Caustic	Aromatic	Alcohol	
4	2587	A	Joiner bulkheads on a MODU provide _____.	compartmentalization	watertight integrity	structural support	tank boundaries	
4	2588	B	Which extinguishing agent is recommended in the Chemical Data Guide for use on a carbon disulfide fire?	Alcohol foam	Dry chemical	Chemical foam	Water fog	
4	2590	C	Regulations require that tank vessels handling grade B liquids shall have their cargo pumps separated from all sources of vapor ignition by _____.	cofferdams	empty cargo spaces	gas tight bulkheads	areas equipped with power ventilation	
4	2591	B	Structural bulkheads on a MODU are usually _____.	continuous	watertight	transverse	non-watertight	

4	2592	B	Which signal is detected as originating from a SART?	The Morse code distress series S-O-S repeated 3 times followed by DE and the vessel's call sign	A line of blip code on a radar screen outward from the SART's position along its line of bearing	A line of blip code on a radar screen inward from the SART's position to its own ship along its line of bearing	None of these	
4	2593	C	Bulkheads which form part of the tanks on a MODU are stiffened to withstand _____.	deck loads from above	dynamic forces while afloat	hydrostatic pressure	over-pressurization	
4	2594	D	Use the floodable length curve in Section 1, the blue pages, of the Stability Data Reference Book. If the curve represents 45 percent permeability and number 3 hold floods, the vessel will sink if the permeability exceeds what percent?	64	68	72	78	
4	2595	A	How can vessel personnel detect the operation of a SART in its vicinity?	A unique radar signal consisting of a blip code radiating outward from a SART's position along its line of bearing	A unique two tone "warbling" signal heard on VHF-FM ch-70	A unique two tone alarm signal heard upon the automatic unmuting of the 2182 kHz radiotelephone automatic watch receiver	The SART signal appears as a target which comes and goes; the effect of heavy swells on the SART	
4	2596	A	Drinking salt water will _____.	dehydrate you	prevent seasickness	be safe if mixed with fresh water	protect against heat cramps	
4	2597	C	Reinforcing frames attached to a bulkhead on a MODU are called _____.	side longitudinals	intercostals	stiffeners	brackets	
4	2598	D	A vessel displaces 12,000 tons and has a KG of 22.8 feet. What will be the length of the remaining righting arm at an angle of inclination of 60° if the center of gravity shifts 1.8 feet transversely? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book)	-1.6 feet	-0.1 foot	1.2 feet	1.9 feet	
4	2599	A	Oil fires are best extinguished by _____.	cutting off the supply of oxygen	removing the fuel	cooling below the ignition temperature	spraying with water	
4	2600	B	If your Bunker-C barge has operated in salt water for more than 12 months in the 24 month period since it was last dry-docked, when is it required to be hauled out again?	36 months since last dry-docking	24 months since last dry-docking	18 months since last dry-docking	12 months since last dry-docking	
4	2601	A	In MODU construction, a greater number of watertight bulkheads results in _____.	increased capacity to set flooding boundaries	decreased capacity to set flooding boundaries	reduced compartmentation	greater deck load capacity	
4	2602	D	In order to determine the health hazard data for carbolic acid, you would use that information contained in the Chemical Data Guide for which chemical?	Acetic oxide	Carbinol	Carbon bisulfide	Phenol	
4	2603	B	Where is the keel generally located on a MODU?	Along the midships axis	Along the centerline of the lower hulls	Along the roll axis of the hull	Along the axis of rotation of the hull	
4	2604	A	Use the floodable length curve in Section 1, the blue pages, of the Stability Data Reference Book. If the curve represents 45 percent permeability, and holds 2 and 3 flood, the vessel will sink if the permeability exceeds what percent?	37	31	26	23	

4	2605	C	Your vessel's drafts are FWD 24'-02", AFT 24'-04". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the final drafts if 295 tons of cargo are loaded 122 feet aft of amidships.	FWD 22'-08", AFT 26'-00"	FWD 22'-10", AFT 25'-09"	FWD 23'-04", AFT 26'-03"	FWD 23'-05", AFT 25'-11"	
4	2606	B	Which device provides the main means in the GMDSS for locating ships in distress or their survival craft?	Radio direction finder	Satellite EPIRBs	MF/HF DSC	VHF homing device	
4	2607	A	The tendency of a grade "B" product to vaporize is indicated by its _____.	flash point	convection index	flammable range	ignition temperature	
4	2608	D	The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.	Available GM 6.3 ft	Available GM 5.7 ft	Available GM 5.3 ft	Available GM 4.8 ft	ST-0071
4	2609	A	Which action should the GMDSS radio operator take in a distress situation when embarking in survival craft?	Switch on EPIRB and SART immediately and leave on.	Switch on EPIRB and SART manually prior to launching and remain aboard vessel in distress.	Notify RCC (Rescue Coordination Center) through VHF DSC with portable equipment.	Communicate via Inmarsat-C from the survival craft.	
4	2610	D	The SS AMERICAN MARINER arrived in port with drafts of: FWD 21'-06.5", AFT 23'-05.4". Cargo was loaded and discharged as shown. Use sheet 2 in the white pages of The Stability Data Reference Book to determine the final drafts.	FWD 21'-07.1", AFT 23'-08.9"	FWD 21'-05.9", AFT 23'-01.9"	FWD 21'-03.0", AFT 23'-04.8"	FWD 21'-10.0", AFT 23'-06.0"	ST-0072
4	2611	B	The central longitudinal structural hull strength member of the lower hulls of semisubmersible MODU's is called the _____.	stress plate	keel	rider plate	main beam	
4	2612	D	What is NOT listed as a synonym for crude oil in the Chemical Data Guide?	Rock oil	Mineral oil	Seneca oil	Earth crude	
4	2613	C	What is required in addition to the heat, fuel, and oxygen of the fire triangle to have a fire?	Smoke	Electricity	Chain reaction	Pressure	
4	2614	D	What is required in addition to the heat, fuel, and oxygen of the fire triangle to have a fire?	Smoke	Electricity	Pressure	Chain reaction	
4	2615	C	On a MODU, the keel is the primary strength member of the lower hull form in which direction?	transverse	diagonal	longitudinal	vertical	
4	2616	A	According to the Chemical Data Guide, the flash point for motor gasoline is _____.	-40°F	100°C	199°C	495°F	
4	2617	C	Which is an exception to the garbage discharge requirements in Annex V to MARPOL 73/78?	The garbage to be discharged will sink.	Garbage accumulation on board has exceeded storage space.	A person falls overboard, and a plastic ice chest is thrown for flotation.	The destination port or terminal cannot receive garbage.	
4	2618	D	What would NOT be a good extinguishing agent for a grade B product of 1,3-Pentadiene?	Dry chemical	CO2	Foam	Water	
4	2619	D	The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.	1171.5 tons	1311.0 tons	1503.0 tons	1710.5 tons	ST-0073
4	2620	D	According to the Chemical Data Guide, which extinguishing agent is NOT recommended for use on a retinol fire?	Dry chemical	Foam	CO2	Water spray	
4	2621	C	The decks of a MODU are supported by transverse members called _____.	trusses	deck longitudinals	deck beams	web frames	

4	2622	C	Liquefied flammable gas is defined as any flammable gas having a Reid vapor pressure exceeding how many pounds?	14	30	40	50	
4	2623	A	Between the side frames on a MODU, support for the deck beams is provided by _____.	stanchions	brackets	web frames	deck stringers	
4	2624	D	The primary concern(s) for safely transporting and handling LFG is(are) _____.	a system of cargo tanks and piping free from leaks	cargo tanks and piping strong enough to withstand the pressure	cargo tanks and piping located or protected to minimize physical damage	All of the above	
4	2625	D	If help has not arrived in 10-12 hours after you abandon ship in a lifeboat, you should _____.	go in one direction until the fuel runs out	plot course for the nearest land	take a vote on which direction you should go	shut down the engines and set the sea anchor	
4	2626	D	Which message categories cannot be disabled by the GMDSS radio operator?	Navigational Warnings	Meteorological Warnings	Search and Rescue Information	All of the above	
4	2627	C	Deck beams on a MODU are generally spaced at equal intervals and run _____.	longitudinally	vertically	transversely	intermittently	
4	2628	C	What normally helps in detecting escaping gas?	Running hand along pipe	Red flame	Odor	Increase the line pressure	
4	2629	A	Severe exposure to chlorine gas can be fatal. Chlorine gas is primarily a _____.	respiratory irritant	skin burning agent	blood poisoning agent	nerve paralyzing irritant	
4	2630	D	According to the Chemical Data Guide, what is NOT a recommended extinguishing agent for an ethylene cyanohydrin fire?	Alcohol foam	CO2	Dry chemical	Water fog	
4	2631	B	In MODU construction, beam brackets are triangular plates that join the deck beam to a _____.	bulkhead	frame	stanchion	deck longitudinal	
4	2632	C	What is the proper first aid for LPG in the eye?	Apply an ice pack to the eye.	Keep the eyelid closed.	Flush the eye with plenty of water.	Rub the eye area clean.	
4	2633	D	A load line for a MODU is assigned by the _____.	Minerals Management Service	Department of Energy	Corps of Engineers	A recognized classification society approved by the Coast Guard	
4	2634	D	Use the floodable length curve in Section 1, the blue pages, of the Stability Data Reference Book. If the curve represents 45 percent permeability and number 4 hold floods, the vessel will sink if the permeability exceeds what percent?	40	48	53	60	
4	2635	C	In MODU construction, beams are transverse girders which provide support to _____.	bulkheads	deckhouse structures	decks	vertical frames	
4	2636	A	When providing first aid to a victim of gas poisoning, the MOST important symptom to check for is _____.	suspension of breathing	unconsciousness	slow and weak pulse	cold and moist skin	
4	2637	A	The maximum draft to which a MODU can legally be submerged is indicated by the _____.	Load Line mark	Certificate of Inspection	Muster List ("Station Bill")	Tonnage mark	
4	2638	B	Marine Safety Information is promulgated via satellite through which system?	AMVER	SafetyNET	NAVTEX	INMARSAT-M SES	

4	2639	B	Your vessel's drafts are: FWD 23'-10", AFT 26'-00". The LCG of the forepeak is 200 feet forward of amidships. How many tons of ballast must be pumped into the forepeak in order to have a drag of 18 inches? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book)	34 tons	45 tons	55 tons	61 tons	
4	2640	B	What is NOT a grade E product?	Dioctyl-phthalate	Gasoline	Formic acid	Creosote coal tar	
4	2641	D	The deck plating on a MODU is supported primarily by deck longitudinals and deck _____.	girders	stanchions	frames	beams	
4	2642	B	When properly set and drawing, a fore-and-aft sail has a cross-section that _____.	is a uniform curve	is a curve with more curve at the luff	is a curve with more curve at the leach	approximates a straight line	
4	2643	C	Stanchions prevent the entire deck load on a MODU from being carried by the _____.	bulkheads	stringers	frames and beam brackets	deck longitudinals	
4	2644	D	When working on a tow, a good safety precaution is to _____.	carry loads on your inside shoulder when walking along the outside of a barge	tighten ratchets outboard	walk on the top of covered barges when possible to avoid narrow gunwales	always remove the toothpick after tightening the ratchet	
4	2645	B	Keeping the draft of a MODU at or below the load line mark will insure that the unit has adequate _____.	reserve ballast	reserve buoyancy	lightweight displacement	critical motions	
4	2646	C	How many B-II fire extinguishers must be in the machinery space of a 175-foot long fishing vessel propelled by engines with 3200 brake horsepower?	2	3	4	5	
4	2647	C	Which statement concerning GMDSS radio operator requirements is FALSE?	Each compulsory vessel must carry at least two licensed GMDSS radio operators at all times while at sea.	Each compulsory vessel must carry at least two licensed GMDSS radio operators at all times while at sea and may elect to carry a GMDSS radio maintainer as well.	Communications involving safety of life at sea do not have to be logged as long as the compulsory vessel was not involved in such communications.	While at sea, adjustments to, and the maintaining of, GMDSS equipment may be performed by the GMDSS radio operator as long as the work is supervised by an onboard licensed GMDSS radio maintainer.	
4	2648	D	Flames from small leaks of LFG may be extinguished by _____.	utilizing carbon dioxide or dry chemical fire extinguishers	utilizing soda and acid fire extinguishers	blowing the flames out	letting it burn itself out	
4	2649	B	Vinyl chloride reacts dangerously with _____.	alkalies	concentrated nitric acid	saltwater	organic acids	
4	2650	D	Which product(s) is(are) compatible with the product ethylene cyanohydrin?	Sulfuric acid	Nitric acid	Isocyanates	Ammonia	
4	2651	B	Load line regulations are designed to insure that a MODU has adequate structural strength and sufficient _____.	lifesaving equipment	stability	mooring tension	riser tension	
4	2652	D	Which vessel is required to carry an efficient daylight signaling lamp? (Uninspected Vessel Regulations)	99 GT towing vessel on Inland Waters	199 GT towing vessel on a coastwise voyage	299 GT towing vessel on a coastwise voyage	199 GT towing vessel on an international voyage	
4	2653	A	The deck loads on a MODU are distributed through the deck beams to the _____.	frames	hull	stringers	plates	

4	2654	B	Name one major advantage of transporting gas under refrigeration.	It increases its volume.	It reduces its volume.	It has less product per volume.	None of the above	
4	2655	C	Support of MODU side plating is provided primarily by transverse _____.	beams	girders	frames	bulkheads	
4	2656	D	How long must the GMDSS radio log be retained on board?	At least two years after the last entry	At least one year after the last entry	At least 90 days after the last entry	At least 30 days after the last entry	
4	2657	D	Your drafts are: FWD 6'-2", AFT 6'-8". From past experience, you know that the vessel will increase her draft 1 inch for every 6 tons loaded. There is rig water on board and 23 tons of deck cargo. How many more tons of cargo can be loaded and still maintain the same trim?	24 tons	18 tons	12 tons	6 tons	D037DG
4	2658	D	As a vessel changes course to starboard, the compass card in a magnetic compass _____.	first turns to starboard then counterclockwise to port	also turns to starboard	turns counterclockwise to port	remains aligned with compass north	
4	2659	A	The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.	Available GM 4.3 ft	Available GM 4.1 ft	Available GM 3.9 ft	Available GM 3.6 ft	ST-0074
4	2660	A	A synonym for chloroform is _____.	trichloromethane	sulfuric chlorohydrin	chlorine gas	4-methyl phenol	
4	2661	B	When the longitudinal strength members of a MODU are continuous and closely spaced, the vessel is _____.	transversely framed	longitudinally framed	intermittently framed	web framed	
4	2662	C	A vessel with a large GM will _____.	have a small amplitude of roll in heavy weather	tend to ship water on deck in heavy weather	be subject to severe racking stresses	be less likely to have cargo shift	
4	2663	A	Lighter longitudinal stiffening frames on the MODU side plating are called _____.	stringers	side frames	side stiffeners	intercostals	
4	2664	A	Gasoline fumes tend to _____.	settle near the bottom of the bilge	settle near the top of the bilge	settle evenly throughout all levels of the bilge by mixing with air	disperse to atmosphere	
4	2665	D	You are in the North Sea, which is a special area listed in ANNEX V of MARPOL. How many miles from land must you be to throw broken plywood dunnage over the side?	6 nm	12 nm	25 nm	Must be retained aboard	
4	2666	A	Your vessel's drafts are: FWD 18'-09", AFT 20'-05"; and the KG is 23.8 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 15° inclination.	0.7 foot	1.0 feet	1.7 feet	3.8 feet	
4	2667	D	Shipboard Oil Pollution Emergency Plans must be reviewed _____.	annually by the owner, with a letter submitted six months before expiration	only once every five years, with a letter submitted six months before expiration	and the entire plan resubmitted for approval once every five years, six months before expiration	annually by the owner, with a letter submitted to the Coast Guard within one month of the anniversary date of the plan approval	
4	2668	A	As a vessel changes course to starboard, the compass card in a magnetic compass _____.	remains aligned with compass north	also turns to starboard	first turns to starboard then counterclockwise to port	turns counterclockwise to port	

4	2669	C	Your vessel's drafts are: FWD 23'-10", AFT 26'-00". The LCG of the forepeak is 200 feet forward of amidships. How many tons of ballast must be pumped into the forepeak in order to have a drag of 1 foot? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book)	61 tons	72 tons	79 tons	86 tons	
4	2670	B	According to the Chemical Data Guide, which material would corrode upon contact with aniline?	Aluminum	Copper	Nickel	Mild steel	
4	2671	D	To meet the regulations governing manning requirements outside U.S. jurisdiction, a person holding a foreign license can serve in any of the following positions EXCEPT _____.	able seaman	ballast control operator	barge supervisor	offshore installation manager	
4	2672	B	Your vessel's drafts are: FWD 16'-08", AFT 17'-06"; and the KG is 23.8 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the remaining righting arm at 60° inclination if the center of gravity is 1.7 feet off the centerline.	1.8 feet	2.1 feet	3.0 feet	3.8 feet	
4	2673	B	A MODU having continuous closely spaced transverse strength members is _____.	longitudinally framed	transversely framed	cellular framed	web framed	
4	2674	B	Use the floodable length curve in Section 1, the blue pages, of the Stability Data Reference Book. If the curve represents 45 percent permeability and number 2 hold floods, the vessel will sink if the permeability exceeds what percent?	76	67	60	52	
4	2675	C	The heavier outboard strake of deck plating on a MODU is called the deck _____.	stiffener	beam	stringer	doubler	
4	2676	C	A safe fuel system must _____.	prevent engine overheating	have proper air/gasoline fuel mixture ratio	be liquid- and vapor-tight	supply sufficient air to the intake manifold	
4	2677	B	The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the KG of the liquid load.	4.0 feet	5.6 feet	6.0 feet	6.8 feet	ST-0075
4	2678	B	What happens to the pulling power of a winch when retrieving wire rope?	It increases	It decreases	It remains the same	It fluctuates, depending on the gearing system	
4	2679	D	The primary hazard of liquefied petroleum gas and liquefied natural gas is _____.	pressure	toxicity	temperature	flammability	
4	2680	C	You are loading benzyl chloride and a small quantity spills on deck. According to the Chemical Data Guide, which of the following may be used as a substitute for water for the cleanup procedure?	Alcohol	Sodium bisulfite	Sodium carbonate	Soda ash solution	
4	2681	A	You are offloading garbage to another ship. Your records must identify that ship by name and show her _____.	official number	home port	Master	next port-of-call	
4	2682	B	The purpose of fuses in electric wiring is to _____.	allow for cutting out branch circuits	prevent overloading the circuits	reduce voltage to the branch circuits	permit the use of smaller wiring for lighting circuits	
4	2683	A	On a MODU, the deck stringer is the outboardmost deck _____.	plating	beam	stiffener	stanchion	

4	2684	B	Use the floodable length curve in Section 1, the blue pages, of the Stability Data Reference Book. If the curve represents 45 percent permeability and holds 4 and 5 flood, the vessel will sink if the permeability exceeds what percent?	22	28	34	39	
4	2685	C	The number of certificated able seamen and lifeboatmen required on a MODU is determined by the _____.	Minerals Management Service	Corps of Engineers	Coast Guard	American Bureau of Shipping	
4	2686	A	Which tank barges require draft marks?	All tank barges	Notch barges over 1000 GT	Tank barges over 100 GT	Tank barges over 50 GT	
4	2687	C	As a vessel changes course to starboard, the compass card in a magnetic compass _____.	first turns to starboard then counterclockwise to port	also turns to starboard	remains aligned with compass north	turns counterclockwise to port	
4	2688	C	The vapor pressure of a gas is the pressure necessary to keep it in a(n) _____.	soluble state	solid state	liquefied state	inert state	
4	2689	A	A vessel with a large GM will _____.	have more resistance to listing in case of damage	have less tendency to have synchronous rolling	be less likely to have cargo shift	ride more comfortably	
4	2690	C	Heavy fuel oils when spilled are _____.	more harmful to sea life than lighter oils	easier to clean up than lighter refined oils	less harmful to sea life than lighter oils	not a real threat to marine life	
4	2691	D	Two individuals authorized to serve as a lifeboatman must be assigned to any lifeboat that has a capacity of more than _____.	10 persons	20 persons	30 persons	40 persons	
4	2692	D	Your vessel's drafts are: FWD 22'-04", AFT 22'-10"; and the KG is 22.6 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 45° inclination.	1.8 feet	2.6 feet	2.9 feet	3.6 feet	
4	2693	D	The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.	1171.5 tons	1311.0 tons	1503.0 tons	1912.5 tons	ST-0076
4	2694	C	The heading of a vessel is indicated by what part of the compass?	Card	Needle	Lubber's line	Gimbals	
4	2695	C	A certificated lifeboatman assigned to command the lifeboat must _____.	be the first individual to board the craft	drain the hydraulic pressure before lowering the craft	have a list of the persons assigned to the lifeboat	All of the above	
4	2696	C	Your vessel's drafts are: FWD 27'-09", AFT 28'-03"; and the KG is 22.4 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the angle of list if the center of gravity is shifted 1.6 feet off the centerline.	16°	20°	24°	30°	
4	2697	B	In order to withstand fluid head pressure on a MODU, stiffeners are often attached to the bulkhead _____.	penetrations	plating	framing	brackets	
4	2698	A	Using a sea anchor will _____.	reduce your drift rate	keep the liferaft from turning over	aid in recovering the liferaft	increase your visibility	

4	2699	B	Your vessel displaces 10,000 tons and has a KG of 22.6 feet. What will be the length of the remaining righting arm at an angle of inclination of 45° if the center of gravity shifts 2.0 feet transversely? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book)	3.8 feet	2.7 feet	1.9 feet	0.9 foot	
4	2700	B	According to the regulations, what fire safety control feature is required in quick-closing shut off valves?	Electrical cut off switch	A fusible link	Manual cut off switch	A water spray actuator	
4	2701	A	Compared to internal structural plating, the exterior hull plating on a MODU is usually _____.	stronger	thinner	more corrosion resistant	a lower grade steel	
4	2702	A	Your vessel displaces 12,000 tons and has a KG of 22.6 feet. What will be the length of the remaining righting arm at an angle of inclination of 30° if the center of gravity shifts 1.8 feet transversely? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book)	0.8 foot	1.2 feet	1.8 feet	2.3 feet	
4	2703	A	The number of certificated able seamen and lifeboatmen required on a MODU is stated in the _____.	Certificate of Inspection	American Bureau of Shipping code	Minerals Management Service regulations	Safety of Life at Sea Convention	
4	2704	A	What must be located on the discharge side of the pump in a fire main system?	Pressure gauge	Strainer	Reduction valve	International shore connection	
4	2705	A	The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the KG of the liquid load.	4.0 feet	5.6 feet	6.0 feet	6.8 feet	ST-0077
4	2706	A	Your vessel's drafts are: FWD 15'-09", AFT 16'-08"; and the KG is 23.6 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the angle of list if the center of gravity is shifted 0.9 foot off the centerline.	15°	18°	21°	24°	
4	2707	D	The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.	Available GM 3.8 ft	Available GM 3.6 ft	Available GM 3.3 ft	Available GM 3.1 ft	ST-0078
4	2708	A	Upon release to the atmosphere, LFG readily _____.	vaporizes	attacks caustically	rises	attacks corrosively	
4	2709	C	Your vessel's drafts are: FWD 24'-06", AFT 25'-08"; and the KG is 22.9 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 50° inclination if the center of gravity is 0.5 foot off center.	3.3 feet	2.6 feet	2.3 feet	2.0 feet	
4	2710	B	Remote controls for quick-closing shut off valves are required in how many location(s)?	1	2	3	4	
4	2711	D	The number of able seamen required on a MODU is stated in the _____.	American Bureau of Shipping code	Department of Energy regulations	Mineral Management Service rules	Certificate of Inspection	
4	2712	D	A vessel with a small GM will _____.	be more subject to synchronous rolling	have a short rolling period	provide an uncomfortable ride for personnel	have a smaller amplitude of roll in heavy weather	
4	2713	C	On a semisubmersible MODU, reserve buoyancy is increased by the presence of void spaces above the waterline in the _____.	submerged hulls	quarters	columns and upper structure	submerged connecting structures	

4	2714	C	Use the floodable length curve in Section 1, the blue pages, of the Stability Data Reference Book. If the curve represents 45 percent permeability and number 1 hold floods, the vessel will sink if the permeability exceeds what percent?	63	66	71	77	
4	2715	A	The certificate of inspection of a MODU will specify the _____.	number of licensed personnel required on board	maximum load line draft	maximum water depth for drilling	next date for an inclining experiment	
4	2716	D	A life float on a fishing vessel must be equipped with _____.	red parachute flares	drinking water	a jackknife	a light	
4	2717	B	Horizontal subdivision decks forming watertight compartments in the columns of a semisubmersible MODU increase the unit's _____.	tank capacities	stability in the event of damage	towing speed	anchor holding ratio	
4	2718	D	Your vessel's drafts are: FWD 22'-04", AFT 22'-10"; and the KG is 18.4 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 30° inclination.	1.6 feet	2.9 feet	3.8 feet	4.6 feet	
4	2719	D	Your vessel's drafts are: FWD 14'-04", AFT 17'-08". The LCG of the forepeak is 200 feet forward of amidships. How many tons of ballast must be pumped into the forepeak in order to have a drag of 2 feet? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book)	62 tons	67 tons	72 tons	77 tons	
4	2720	A	To determine the pressure and temperature limitations under which LFG is required to be transported on a barge, you should look at the _____.	Certificate of Inspection	loading order	rules and regulations for tank vessels	tankerman's document	
4	2721	D	You are at the helm of a schooner-rigged sailing vessel under sail on the port tack, on a beam reach, with all appropriate sails set and properly trimmed. You are instructed to "bear off quickly". To utilize your sails to assist with the turn, you should _____.	slack the foresail sheet	slack the fore-staysail sheet	slack the jib sheet	slack the main sheet	
4	2722	D	Your vessel's drafts are: FWD 21'-08", AFT 24'-02". The LCG of the forepeak is 200 feet forward of amidships. How many tons of ballast must be pumped into the forepeak in order to have a drag of 18 inches? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book)	53 tons	57 tons	61 tons	65 tons	
4	2723	C	The prohibition against exceeding the load line draft may be considered temporarily not applicable when _____.	column-stabilized units are operating in water depths over 600 feet	column-stabilized units are operating in waters outside U.S. jurisdiction	bottom supported units are being raised or lowered to the sea bed	bottom supported units are being towed on a move of less than 12 hours	
4	2724	B	Your vessel's drafts are: FWD 18'-03", AFT 18'-09"; and the KG is 22.6 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the angle of list if the center of gravity is shifted 1.4 feet off the centerline.	18°	22°	26°	30°	
4	2725	B	The stability of a semisubmersible MODU would be seriously reduced if flooding occurred in the _____.	submerged hulls	column void spaces	dry mud tanks	ballast tanks	

4	2726	D	Your vessel's drafts are FWD 19'-02", AFT 23'-10". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the final drafts if 98 tons of fuel is loaded 116 feet forward of amidships.	FWD 19'-04", AFT 23'-06"	FWD 19'-07", AFT 23'-04"	FWD 19'-09", AFT 23'-01"	FWD 19'-09", AFT 23'-06"	
4	2727	B	For optimum stability during jacking operations, mat ballast tanks or spud cans should be _____.	empty	fully ballasted	partially ballasted	sealed	
4	2728	A	Your vessel's drafts are: FWD 14'-00", AFT 14'-08"; and the KG is 25.8 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the remaining righting arm at 30° inclination if the center of gravity is 1.5 feet off the centerline.	0.6 foot	1.3 feet	1.9 feet	2.9 feet	
4	2729	B	You are approaching another vessel and see that it has the signal flag "O" hoisted. What is your next action?	Proceed on present course and speed since the vessel is requesting a pilot.	Attempt to call the vessel on VHF radiotelephone and begin a search because the vessel has a man overboard.	Attempt to call the vessel on VHF radiotelephone because it is disabled.	Approach with caution because the vessel is stopped and making no way through the water.	
4	2730	C	According to the regulations, normally, manholes in LFG tanks are located _____.	in the ends of each tank	in the expansion trunk of each tank	above the weather deck	there are no requirements in the regulation	
4	2731	B	The document that certifies the correctness of the load line marks on a MODU is called the _____.	Certificate of Inspection	Load line certificate	Certificate of Documentation	SOLAS Certificate	
4	2732	C	According to the regulations, to prevent excessive pressure buildup in cargo tanks containing LFG, they are fitted with _____.	pressure vacuum relief valves	excess flow valves	safety relief valves	flame screens	
4	2733	A	Buoyancy associated with empty or partly empty ballast tanks in the mat of a mat supported jack-up MODU during jacking operations can cause _____.	capsizing	delays	progressive flooding	negative buoyancy	
4	2734	A	Your vessel's drafts are: FWD 17'-07", AFT 16'-09"; and the KG is 24.8 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 15° inclination.	0.7 foot	1.2 feet	1.9 feet	4.8 feet	
4	2735	D	A load line is assigned to a MODU to insure adequate stability and _____.	mooring tension	riser tension	lifesaving equipment	structural strength	
4	2736	A	Your vessel's drafts are: FWD 22'-04", AFT 23'-06"; and the KG is 22.4 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 19° inclination if the center of gravity is 1.3 feet off center.	0.2 foot	0.8 foot	1.4 feet	2.2 feet	
4	2737	A	During jacking operations and transit, empty void spaces in the hull of a jack up MODU provide _____.	buoyancy	extra storage space	additional tank capacity	reduced stability	
4	2738	B	Generally, the first action in extinguishing an LFG fire caused by escaping gas is to _____.	sweep flames away with water spray	shut off the leak	use a chemical foam fire extinguisher	call the local fire department	
4	2739	B	Your vessel's drafts are: FWD 19'-03", AFT 21'-03". The LCG of the forepeak is 200 feet forward of amidships. How many tons of ballast must be pumped into the forepeak in order to have a drag of 18 inches? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book)	27 tons	31 tons	34 tons	37 tons	

4	2740	A	The SS AMERICAN MARINER arrived in port with drafts of: FWD 19'-06.6", AFT 20'-05.6". Cargo was loaded and discharged as shown. Use sheet 2 in the white pages of The Stability Data Reference book to determine the final drafts.	FWD 20'-06", AFT 21'-02"	FWD 18'-06", AFT 19'-09"	FWD 18'-10", AFT 20'-05"	FWD 20'-03", AFT 21'-05"	ST-0079
4	2741	D	A record of the types and strengths of steels used on a MODU must be included in the _____.	general plans	builder's documentation	Certificate of Inspection	construction portfolio	
4	2742	B	A vessel with a small GM will _____.	have a large amplitude of roll	provide a comfortable ride for the crew and passengers	have drier decks in heavy weather	be likely to have cargo shift in heavy weather	
4	2743	C	Compliance with the terms of the load line certificate on a MODU is the responsibility of the _____.	Ballast Control Operator	Barge Supervisor	Master or Offshore Installation Manager	operators representative	
4	2744	D	Radar reflectors are required for _____.	all fishing vessels over 39 feet in length	sail-propelled fishing vessels	all fishing vessels of less than 200 GT	wooden hull fishing vessels with a poor radar echo	
4	2745	B	The construction portfolio may be included as part of the MODU _____.	general plans	operating manual	builders documentation	Coast Guard file	
4	2746	D	Your vessel's drafts are: FWD 17'-07", AFT 16'-09"; and the KG is 21.5 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 30° inclination.	0.8 foot	1.5 feet	2.7 feet	3.6 feet	
4	2747	D	Periodic surveys to renew the load line assignment for a MODU must be made at intervals not exceeding _____.	18 months	2 years	3 years	5 years	
4	2748	A	Most covered lifeboats will right themselves after capsizing if the _____.	passengers are strapped to their seats	fuel tanks are not less than half full	sea anchor is deployed to windward	lower ballast tanks are filled with water	
4	2749	A	Your vessel's drafts are: FWD 19'-03", AFT 21'-03". The LCG of the forepeak is 200 feet forward of amidships. How many tons of ballast must be pumped into the forepeak in order to have a drag of 1 foot? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book)	62 tons	68 tons	74 tons	78 tons	
4	2750	A	According to regulations, a cargo hose used for transferring liquefied gases must have a bursting pressure of _____.	5 times the maximum working pressure on the hose during cargo transfer	one half the designed working pressure	4 times the pressure of the cargo pump used for transferring	5 times the minimum working pressure on the hose during cargo transfer	
4	2751	C	The requirements for special welding procedures on a MODU must be contained in the _____.	vessel plans	Coast Guard file	construction portfolio	construction plans	
4	2753	C	For MODU's operating under the U.S. flag, the construction portfolio must contain _____.	detailed construction plans	chemical and physical properties of ABS approved steels	approved welding procedures and welding test procedures	loading conditions and limitations	
4	2754	B	Which lifesaving equipment must be tested monthly?	Inflatable PFD's	EPIRB	Hydrostatic releases	Dated batteries	
4	2755	C	What repair or modification to a MODU would most likely require consulting the construction portfolio?	Replacing watertight doors in quarters	Repair of drill pipe racks on deck	Repair of leg-to-can connection on a jack-up	Replacing a service pump foundation	

4	2756	C	Your vessel's drafts are: FWD 18'-09", AFT 20'-05"; and the KG is 23.8 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 26° inclination if the center of gravity is 1.0 foot off center.	0.0 feet	0.4 foot	0.8 foot	1.7 feet	
4	2757	A	A simplified construction plan may be included in the MODU construction portfolio provided it adequately defines the _____.	areas where special materials are used	hazardous areas	location of emergency repair equipment	type and strength of materials used	
4	2758	C	A vessel is equipped with cross-connected deep tanks. In which situation should the cross-connection valve be closed?	The tanks lie above the waterline and are filled.	The tanks are partially filled with dry cargo.	The tanks are partially filled with liquid cargo.	The tanks are filled and lie below the waterline.	
4	2759	B	Your vessel's drafts are: FWD 14'-04", AFT 17'-08". The LCG of the forepeak is 200 feet forward of amidships. How many tons of ballast must be pumped into the forepeak in order to have a drag of 18 inches? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book)	110 tons	103 tons	100 tons	98 tons	
4	2760	B	According to the regulations, what type of gauging is required for a cargo of butadiene?	Open	Restricted	Closed	None	
4	2761	A	In the MODU construction portfolio, materials which do not conform to ASTM or ABS specifications must also include the _____.	chemical and physical properties of the material	name of the alternative standard or specification	the ASTM or ABS specification the material approximates	manufacturer or origin of the material	
4	2762	B	Your vessel's drafts are: FWD 24'-04", AFT 25'-10"; and the KG is 23.5 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 37° inclination.	1.9 feet	2.1 feet	3.5 feet	4.2 feet	
4	2763	C	A welding procedure used for joining dissimilar metals used on a MODU would be recorded in the _____.	welding plan	ASTM specifications	construction portfolio	Coast Guard file	
4	2764	B	If you wear extra clothing when entering the water after abandoning ship it will _____.	weigh you down	preserve body heat	reduce your body heat	make it more difficult to breathe	
4	2765	D	The maximum draft to which a drilling unit may be safely loaded is called _____.	mean draft	calculated draft	deep draft	load line draft	
4	2766	B	How do you know how many passengers you may carry? (small passenger vessel regulations)	As many as possible	The amount on the Certificate of Inspection	Use your own judgment	No more than 40 passengers	
4	2767	A	Forces within a drilling unit have caused a difference between the starboard and port drafts. This difference is _____.	list	heel	trim	flotation	
4	2768	C	Small passenger vessels of less than 100 gross registered tons must be inspected by the Coast Guard when they carry more than _____. (small passenger vessel regulations)	12 passengers	50 passengers	6 passengers	1 passenger	
4	2769	B	Starting motors, generators, and any other spark producing devices shall be _____. (small passenger vessel regulations)	of the alternating current type	mounted as high as practicable above the bilges	rated for at least 12 volts	All of the above	
4	2770	C	Branch venting from safety relief valves on barges shall be constructed to discharge the gas at a vertical height above the weather deck to a minimum of _____.	6 feet	8 feet	10 feet	12 feet	

4	2771	D	The angle to which a floating MODU, with a negative initial metacentric height, lies while at rest in still water is the angle of _____.	trim	yaw	heel	loll	
4	2772	A	Tour vessel's drafts are: FWD 22'-09", AFT 23'-07"; and the KG is 24.2 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 18° inclination.	0.7 foot	1.3 feet	2.0 feet	2.3 feet	
4	2773	C	The required portable radio apparatus on an international voyage must be stowed in _____.	the Master's quarters	the ship's office	the radio room, bridge, or protected location	an unlocked cabinet next to the Muster List ("Station Bill")	
4	2774	C	The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.	Available GM 3.8 ft	Available GM 3.5 ft	Available GM 3.2 ft	Available GM 2.9 ft	ST-0080
4	2775	D	The SS AMERICAN MARINER arrived in port with drafts of: FWD 28'-08", AFT 29'-05'. Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.	FWD 28'-11", AFT 28'-11"	FWD 29'-01", AFT 28'-09"	FWD 29'-03", AFT 28'-07"	FWD 29'-05", AFT 28'-05"	ST-0081
4	2776	B	The lubber's line of a magnetic compass _____.	always shows true north direction	indicates the vessel's heading	is always parallel to the vessel's transom	is located on the compass card	
4	2777	B	The lubber's line on a magnetic compass indicates _____.	compass north	the direction of the vessel's head	magnetic north	a relative bearing taken with azimuth circle	
4	2778	C	Your vessel's drafts are: FWD 24'-06", AFT 25'-04"; and the KG is 17.8 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the remaining righting arm at 75° inclination if the center of gravity is 2.5 feet off the centerline.	2.5 feet	3.3 feet	5.4 feet	9.7 feet	
4	2779	D	Error may be introduced into a magnetic compass by _____.	making a structural change to the vessel	a short circuit near the compass	belt buckles	All of the above	
4	2780	B	The carriage of a liquefied gas not appearing in table 4 of 46 CFR Part 154 must be approved by the _____.	vessel owner	Commandant (G-MTH)	American Bureau of Shipping	Officer in Charge, Marine Inspection	
4	2781	A	For a floating MODU, the center of flotation is the point in the waterplane _____.	about which the MODU lists and trims	which coincides with the center of buoyancy	which, in the absence of external forces, is always vertically aligned with the center of gravity	which is shown in the hydrostatic tables as VCB	
4	2782	C	Your vessel's drafts are: FWD 24'-06", AFT 25'-04"; and the KG is 22.2 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 20° inclination.	0.5 foot	0.8 foot	1.4 feet	2.2 feet	
4	2783	D	The angle of loll is a stability term which applies to a floating MODU with _____.	off-center loading	stiff characteristics	excessive pitch or roll	negative initial stability	
4	2784	C	When abandoning ship and jumping into the water from a substantial height without a life jacket, you should _____.	dive head first, using your hands to break the surface of the water	hold your arms firmly at your sides and jump feet first	jump feet first, covering your nose and mouth with one hand and grasping the opposing upper arm with the other	jump feet first, holding your knees to your chest	

4	2785	B	The intact volume above the waterline of a floating MODU is _____.	displacement volume	reserve buoyancy	gross tonnage	net tonnage	
4	2786	C	Certain equipment aboard vessels, inspected under the small passenger vessel regulations, is required to be marked with the vessel's name. This includes _____. (small passenger vessel regulations)	bunks, silverware, china, and glassware	anchors, line, paint cans, and fuel drums	life jackets, life floats and paddles	whistles, searchlights, navigation lights, and ship's bell	
4	2787	D	You are on a commercial fishing vessel 78 feet long. At least one of your ring buoys or throwable flotation devices must have a line of what minimum length attached?	60 feet	70 feet	80 feet	90 feet	
4	2788	B	Which is NOT a safety precaution to be observed during the loading of LFG?	Report any leakage of cargo.	Make sure the rake ends of the barge are completely dry and mopped.	Ascertain that the hoses to be used are in good order.	Be on the lookout for work being accomplished ashore in the vicinity of the barges.	
4	2789	D	As appropriate for the voyage, all vessels must carry adequate and up-to-date _____. (small passenger vessel regulations)	charts	Coast Pilots	Light Lists	All of the above	
4	2790	D	The weight of liquefied petroleum gas vapors as compared to air is _____.	variable	the same	lighter	heavier	
4	2791	A	Seawater may be used for drinking _____.	under no conditions	at a maximum rate of two ounces per day	if gathered during or immediately after a hard rain	after mixing with an equal quantity of fresh water	
4	2792	D	Your vessel's drafts are: FWD 18'-06", AFT 19'-01"; and the KG is 18.2 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 35° inclination.	1.8 feet	3.0 feet	4.7 feet	5.8 feet	
4	2793	A	The mean draft of a MODU is the draft _____.	midway between the forward and aft draft marks	at the center of flotation	at the load line	at the center of buoyancy	
4	2794	D	Which would influence a magnetic compass?	Electrical wiring	Iron pipe	Radio	All of the above	
4	2795	B	The true mean draft of a MODU is the draft _____.	midway between drafts forward and aft	at the center of flotation	at the load line	at the center of buoyancy	
4	2796	D	On small passenger vessels cooking and heating equipment _____.	shall be suitable for marine use	may use liquefied petroleum gas	cannot use gasoline	All of the above	
4	2797	C	A semisubmersible with a positive GM, and TCG located starboard of the centerline, inclines to an angle of _____.	heel	trim	list	loll	
4	2798	B	Your vessel's drafts are: FWD 17'-07", AFT 16'-09"; and the KG is 21.5 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the remaining righting arm at 30° inclination if the center of gravity is 0.9 foot off the centerline.	1.5 feet	2.8 feet	3.6 feet	4.3 feet	
4	2799	D	One of the principal dangers inherent in liquefied petroleum gas is _____.	as it warms up it becomes heavier than air	the way it reacts with sea water	the strong odor it produces	its low temperature causes frostbite or freezing	

4	2800	B	Your vessel assumes an angle of loll of 8° after loading a deck cargo. The drafts are: FWD 17'-09", AFT 18'-03". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the negative GM.	0.0 foot	-0.2 foot	-0.8 foot	-1.0 foot	
4	2801	A	How many B-II fire extinguishers must be in the machinery space of a 175-foot long fishing vessel propelled by engines with 2000 brake horsepower?	2	3	4	5	
4	2802	B	Your vessel's drafts are: FWD 14'-11", AFT 15'-09"; and the KG is 18.2 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the angle of list if the center of gravity is shifted 2.0 feet off the centerline.	9°	12°	16°	19°	
4	2803	A	When a magnetic compass is not in use for a prolonged period of time it should _____.	be shielded from direct sunlight	be locked into a constant heading	have any air bubbles replaced with nitrogen	have the compensating magnets removed	
4	2804	A	Your vessel's drafts are: FWD 19'-09", AFT 20'-09"; and the KG is 24.6 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the remaining righting arm at 15° inclination if the center of gravity is 0.5 foot off the centerline.	0.0 feet	0.5 foot	1.2 feet	1.7 feet	
4	2805	D	A vessel heading NNW is on a course of _____.	274.5°	292.0°	315.5°	337.5°	
4	2806	C	A vessel heading NW is on a course of _____.	274.5°	292.5°	315.0°	337.5°	
4	2807	A	A vessel heading SSW is on a course of _____.	202.5°	225.0°	247.5°	270.0°	
4	2810	C	Your vessel assumes an angle of loll of 6° after loading a deck cargo. The drafts are: FWD 16'-00", AFT 16'-05". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the negative GM.	-1.0 foot	-0.6 foot	-0.1 foot	-0.02 foot	
4	2811	B	A vessel heading SW is on a course of _____.	202.5°	225.0°	247.5°	270.0°	
4	2812	B	What is correct with respect to required watertight bulkheads on small passenger vessels less than 100 GT?	Penetrations are prohibited.	Sluice valves are not permitted.	Each bulkhead must be stepped at its midpoint.	All of the above	
4	2813	C	A vessel heading WSW is on a course of _____.	202.5°	225.0°	247.5°	271.0°	
4	2814	B	Your vessel's drafts are: FWD 21'-04", AFT 21'-08"; and the KG is 20.6 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the remaining righting arm at 45° inclination if the center of gravity is 1.2 feet off the centerline.	3.8 feet	4.4 feet	5.2 feet	5.6 feet	
4	2815	B	A vessel heading WNW is on a course of _____.	270.0°	292.5°	315.0°	337.5°	
4	2816	B	When a lifeline is required to be attached to a ring life buoy it must be at least _____. (small passenger vessel regulations)	30 feet long	60 feet long	90 feet long	120 feet long	
4	2817	C	A vessel heading SSE is on a course of _____.	112.5°	135.0°	157.5°	180.0°	
4	2818	D	Your vessel assumes an angle of loll of 10° after loading a deck cargo. The drafts are: FWD 15'-11", AFT 16'-06". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the negative GM.	-1.3 feet	-0.9 foot	-0.6 foot	-0.3 foot	

4	2819	D	Distress flares and smoke signals are not required on vessels operating on short runs. A "short run" is limited to _____. (small passenger vessel regulation)	water of less than 20 feet in depth	where land is always in sight	no more than 5 miles	about 30 minutes away from the dock	
4	2820	B	The SS AMERICAN MARINER will sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the drafts.	FWD 26'-02", AFT 26'-08"	FWD 25'-09", AFT 27'-02"	FWD 25'-03", AFT 28'-09"	FWD 24'-11", AFT 29'-11"	ST-0082
4	2821	B	A vessel heading SE is on a course of _____.	112.5°	135.0°	157.5°	180.0°	
4	2822	A	Survival craft required on a steel small passenger vessel operating in cold water must _____.	have sufficient capacity for all persons on board the vessel in ocean service.	have sufficient capacity for at least 50% of all persons on board for vessels in ocean service	be only inflatable liferafts	international orange in color only for vessels in lakes, bays and sounds service	
4	2823	A	A vessel heading ESE is on a course of _____.	112.5°	135.0°	157.5°	180.0°	
4	2824	D	Your vessel's drafts are: FWD 23'-01", AFT 24'-05"; and the KG is 22.8 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the remaining righting arm at 30° inclination if the center of gravity is 1.9 feet off the centerline.	3.7 feet	2.3 feet	1.4 feet	0.7 foot	
4	2826	C	To prevent the spread of fire by convection you should _____.	cool the bulkhead around the fire	remove combustibles from direct exposure	close all openings to the area	shut off all electrical power	
4	2827	B	For a floating MODU, true mean draft is always the _____.	average of the observed drafts	draft at the center of flotation	draft corresponding to the calculated displacement	mean of the calculated drafts	
4	2828	D	On board small passenger vessels, how often shall the Master test the steering gear?	Once a week	Once a month	Every 72 operating hours while underway	Before getting underway for the day's operations	
4	2829	B	Aboard small passenger vessels the steering gear, signaling whistle, controls, and communication system shall be tested by the Master _____.	once a week	before getting underway for the day's operation	at every inspection and reinspection	at least once in every 48 hours	
4	2830	A	Your vessel assumes an angle of loll of 14° after loading a deck cargo. The drafts are: FWD 13'-01", AFT 13'-11". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the negative GM.	-0.7 foot	-0.4 foot	-0.3 foot	-0.1 foot	
4	2831	C	A vessel heading ENE is on a course of _____.	022.5°	045.0°	067.5°	090.0°	
4	2832	D	Which fuel cannot be used for cooking on vessels carrying passengers for hire? (small passenger vessel regulations)	Kerosene	Coal	Wood	Gasoline	
4	2833	B	A vessel heading NE is on a course of _____.	022.5°	045.0°	067.5°	090.0°	
4	2834	C	Your vessel's drafts are: FWD 27'-06", AFT 28'-02"; and the KG is 23.1 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the remaining righting arm at 60° inclination if the center of gravity is 2.4 feet off the centerline.	2.4 feet	1.8 feet	0.5 foot	0.2 foot	
4	2835	A	A vessel heading NNE is on a course of _____.	022.5°	045.0°	067.5°	090.0°	
4	2836	A	The remote control for a fixed fire extinguishing system should be _____. (Uninspected Vessel Regulations)	painted red and labeled	concealed from the crew	protected by plexiglas	padlocked	

4	2837	B	The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the KG of the liquid load.	7.7 feet	9.1 feet	9.9 feet	10.6 feet	ST-0083
4	2838	C	How many B-II hand portable fire extinguishers are required in the machinery space of a 260 GT tow vessel with 2400 B.H.P.? (Uninspected Vessel Regulations)	6	5	3	2	
4	2839	A	What type of cooking equipment may NOT be used aboard vessels subject to The Rules and Regulations for Small Passenger Vessels?	Gasoline	Propane	Butane	LPG	
4	2840	D	If a vessel loads 400 tons of deck cargo resulting in a GM of -0.2 feet on 9000 tons of displacement, what will be the angle of loll? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book)	16°	15°	12°	9°	
4	2841	A	The distance from the still water level (corrected for tides and storm surge) to the bottom of the hull of a MODU is the _____.	air gap	freeboard	penetration	water depth	
4	2842	A	No "T-boat", however propelled, may operate with more than six passengers onboard _____.	unless the operator has a Coast Guard license	unless the vessel has a valid Permit to Proceed	until the Boarding Officer has checked the papers	until a permit is obtained from the Collector of Customs	
4	2843	A	Under the Pollution Regulations, garbage disposal records must be kept _____.	two years	one year	until the next Coast Guard inspection	until the end of the voyage	
4	2844	A	Your vessel's drafts are: FWD 27'-06", AFT 28'-02"; and the KG is 23.1 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 37° inclination if the center of gravity is 1.8 feet off center.	0.4 foot	1.4 feet	1.8 feet	2.6 feet	
4	2845	D	The SS AMERICAN MARINER will sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the drafts.	FWD 27'-01", AFT 25'-08"	FWD 29'-09", AFT 25'-09"	FWD 25'-09", AFT 30'-05"	FWD 25'-06", AFT 30'-00"	ST-0084
4	2846	B	A small passenger vessel engaging in international voyages must be dry docked at least once every _____.	6 months	12 months	36 months	60 months	
4	2847	C	The required portable radio shall be stored in the proper location and be _____.	equipped with an approved carrying case	equipped with spare batteries	readily accessible for transfer to a lifeboat	in a waterproof enclosure	
4	2849	C	A vessel would be referred to as "stiff" when the weight of the cargo is _____.	evenly distributed vertically and the double bottoms are full	concentrated low and the double bottoms are empty	concentrated low and the double bottoms are full	concentrated high and the double bottoms are empty	
4	2850	B	If a vessel loads 400 tons of deck cargo resulting in a GM of -0.3 foot on 9000 tons displacement, what will be the angle of loll? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book)	7°	11°	15°	17°	
4	2851	C	Kevlar sails, when not in use, may be damaged if _____.	left in the sunlight	stowed wet	folded frequently	washed with soap and water	
4	2852	C	You are fighting a fire in a watertight compartment using hoses and river water. Stability may be reduced because of _____.	progressive downflooding	reduction of water in the storage tanks	increase in free surface which reduces the metacentric height	reduction of KG to the minimum allowable	

4	2853	C	What can be used to measure the percentage of oxygen inside a confined space?	Flame safety lamp	Combustible gas indicator	Oxygen indicator	H2S meter	
4	2854	C	The sailing drafts are: FWD 14'-08", AFT 15'-06" and the GM is 4.8 feet. Use the information in Section 1, the blue pages, of the Stability Data Reference Book, to determine the available righting arm at 40° inclination.	3.3 feet	3.7 feet	4.3 feet	5.4 feet	
4	2855	D	Deficient oxygen content inside a confined space can be detected with _____.	litmus paper	a combustible gas indicator	an oxygen breathing apparatus	an oxygen indicator	
4	2856	A	Which vessel is NOT required to have a Pollution Placard posted on board?	215-foot naval auxiliary vessel	75-foot towing vessel	50-foot cabin cruiser used for pleasure only	150-foot unmanned tank barge	
4	2858	A	A 50-foot passenger vessel not limited to daylight operation is required to be equipped with at least _____.	1 ring life buoys with a water light	2 ring life buoy with a water light	2 ring life buoys with 2 water lights	3 ring life buoys with 2 water lights	
4	2859	D	For emergency communications, vessels operating on oceans, coastwise, or Great Lakes routes, on runs of more than 30 minutes shall carry in a portable watertight container at or near the operating station _____. (small passenger vessel regulations)	six orange hand smoke distress signals	six red hand flare distress signals	one 3-cell flashlight	six red hand flare distress signals and six orange hand smoke distress signals	
4	2860	C	If a vessel loads 250 tons of deck cargo resulting in a GM of -0.3 foot on 8000 tons displacement, what will be the angle of loll? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book)	16°	13°	10°	7°	
4	2861	B	What is the minimum number of portable fire extinguishers required on board a 45-foot towing vessel having a fixed fire system on board? (Uninspected Vessel Regulations)	1 B-I	2 B-I	3 B-I	4 B-I	
4	2862	B	A wooden small passenger vessel operating on a coastwise route in cold water shall carry sufficient inflatable buoyant apparatus for _____ or meet alternate requirements regarding collision bulkhead standards and the provision of life floats.(small passenger vessel regulations)	all persons aboard	67% of the total number of persons permitted on board.	50% of all persons aboard	30% of all persons aboard	
4	2863	D	You are berthed at a cargo facility where you have just completed discharging a dangerous cargo from your barge. You must complete topside repairs on the barge involving hot work before sailing. Which statement is TRUE?	You can make repairs with permission of the facility owner since you are empty and the cargo is on the facility.	The repair area must be inspected by a marine surveyor to ensure that it can be done safely.	Hot work repairs at such a facility are prohibited.	The Captain of the Port may give specific approval to make hot work repairs.	
4	2864	A	The sailing drafts are: FWD 22'-08", AFT 23'-04" and the GM is 4.6 feet. Use the information in Section 1, the blue pages, of the Stability Data Reference Book, to determine the available righting arm at 20° inclination.	2.1 feet	2.4 feet	2.8 feet	3.2 feet	
4	2865	D	Which statement about the free surface correction is TRUE?	It is added to GM at light drafts and subtracted at deep drafts.	It is increased if the slack tank is not on the centerline.	It is decreased if the slack tank is below the KG of the vessel.	The correction decreases as the draft increases	
4	2866	D	If a vessel is not equipped with an automatically-activated emergency lighting system, the vessel must be _____. (small passenger vessel regulations)	operated only in daylight hours	provided with gasoline or kerosene lights	equipped with luminous tape markings on emergency equipment	equipped with individual battery-powered lights	

4	2867	B	In illustration D041DG, the symbol for amidships is _____.	2	3	4	5	
4	2868	C	The SS AMERICAN MARINER is ready to bunker with drafts of FWD 14'-06", AFT 17'-00". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction.	0.52 foot	0.70 foot	0.84 foot	1.10 feet	ST-0085
4	2869	B	Mechanical gearing of deck machinery such as the windlass or towing engine should _____.	be open to view so, if a foreign object gets in the gearing, the operator can immediately stop the machinery	have a guard over the gearing	be painted a contrasting color from the base color in order to call attention to the gearing	not be operated if there is any crew within 10 feet of the machinery	
4	2870	A	If a vessel loads 250 tons of deck cargo resulting in a GM of -0.4 foot on 8000 tons displacement, what will be the angle of loll? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book)	12°	10°	8°	6°	
4	2871	B	As shown, the symbol 3 represents _____.	displacement	amidships	forward perpendicular	baseline	D041DG
4	2872	A	A tank barge equipped with an internal-combustion engine-driven cargo pump on the weather deck shall be provided with a minimum of one remote manual shutdown station. What is the correct location of the shutdown station?	Midpoint of the vessel or 100 feet from the engine	Stern of the vessel or 100 feet from the engine	Midpoint of the vessel or 75 feet from the bow	Bow of the vessel or 75 feet from the engine	
4	2873	A	As shown, the symbol for the reference from which transverse measurements are made is _____.	5	4	3	1	D041DG
4	2874	B	The sailing drafts are: FWD 22'-06", AFT 23'-06" and the GM is 3.3 feet. Use the information in Section 1, the blue pages, of the Stability Data Reference Book, to determine the available righting arm at 22° inclination.	1.2 feet	1.8 feet	2.4 feet	3.0 feet	
4	2875	C	The symbol 5 as shown represents _____.	displacement	leverage center	centerline	counterflood limits	D041DG
4	2876	B	The minimum number of portable B-II fire extinguishers required in the machinery space of a 199 GT motor towing vessel of 8000 B.H.P. is _____. (Uninspected Vessel Regulations)	3	6	8	9	
4	2877	B	In illustration D041DG, the symbol for the vertical plane midway between the fore and aft perpendiculars is _____.	2	3	4	5	
4	2878	B	To prevent the spread of fire by conduction you should _____.	remove combustibles from direct exposure	cool the bulkheads around the fire	close all openings to the area	shut off all electrical power	
4	2879	A	While underway and towing an unmanned tank barge you are required to _____.	maintain a strict watch on the barge from the towing vessel	fly a red flag from the towing vessel	open the tops of all empty tanks on the barge	take hourly soundings of any loaded tanks on the barge	
4	2880	A	You have loaded a deck cargo, and the vessel has assumed a 6° list due to negative GM. Your salt water drafts are: FWD 16'-05", AFT 16'-07". If you then load 1150 tons of cargo in the lower holds (VCG 12.0 feet) and take on 520 tons of bunkers (VCG 2.5 feet), what is the final GM? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book)	1.8 feet	2.4 feet	2.8 feet	3.1 feet	

4	2881	A	How many type B-II hand portable fire extinguishers are required in the machinery space of an uninspected towing vessel with 1,400 B.H.P.? (Uninspected Vessel Regulations)	2	3	4	5	
4	2882	A	Whenever an inspected vessel is dry-docked for major repairs, the person in charge of the vessel, the owner or the agent should report this to the _____. (small passenger vessel regulations)	Officer in Charge, Marine Inspection	National Cargo Bureau, Inc.	American Boat and Yacht Council, Inc.	All of the above	
4	2884	B	The sailing drafts are: FWD 23'-02", AFT 24'-06" and the GM is 2.8 feet. Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the available righting arm at 30° inclination.	1.3 feet	2.5 feet	3.2 feet	3.7 feet	
4	2885	A	The SS AMERICAN MARINER arrived in port with drafts of: FWD 28'-04", AFT 29'-10". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.	FWD 26'-04", AFT 30'-00"	FWD 26'-06", AFT 29'-10"	FWD 26'-08", AFT 29'-08"	FWD 26'-10", AFT 29'-06"	
4	2886	A	A small passenger vessel, operating only on domestic routes, which is operated in salt water for more than three months in a year must undergo a dry dock and internal structural examination at least once every _____.	2 years	3 years	4 years	5 years	
4	2887	B	Seawater may be used for drinking _____.	at a maximum rate of two ounces per day	under no conditions	after mixing with an equal quantity of fresh water	if gathered during or immediately after a hard rain	
4	2889	C	Switchboards shall be ..... (small passenger vessel regulations)	Watertight.	Grounded to the main engine on a wooden hulled boat.	The dead-front type, totally enclosed	Equipped with switch locks	
4	2890	D	You have loaded a deck cargo, and the vessel has assumed an 8° list due to negative GM. Your salt water drafts are: FWD 16'-10", AFT 17'-02". If you then load 1050 tons of cargo in the lower holds (VCG 12.5 feet) and 475 tons in the lower 'tween decks (VCG 24.5 feet), what is the final GM? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book)	2.1 feet	1.6 feet	1.4 feet	0.6 foot	
4	2891	D	The maximum angle at which the intact stability curves are valid for MODU's is the angle for _____.	the limit of positive stability	the limit of small-angle stability	maximum offset	downflooding	
4	2892	B	Regulations define the bulkhead deck as _____. (subdivision and stability regulations)	any deck extending from stem to stern	the uppermost deck to which transverse watertight bulkheads extend	the lowermost deck to which transverse watertight bulkheads extend	the uppermost complete deck	
4	2893	D	The downflooding angle for a MODU is the maximum angle at which _____.	stability is positive	neutral equilibrium exists	the load line is not submerged	intact stability curves are valid	
4	2894	D	The sailing drafts are: FWD 23'-10", AFT 25'-02" and the GM is 5.3 feet. Use the information in Section 1, the blue pages, of the Stability Data Reference Book, to determine the available righting arm at 18° inclination.	0.8 feet	1.1 feet	1.5 feet	1.9 feet	

4	2895	B	The downflooding angle for a MODU is the minimum angle at which _____.	the load line becomes submerged	a non-watertight opening is at still water level	offset becomes excessive	reserve buoyancy is a maximum	
4	2896	C	Your vessel is certificated to carry 50 persons. You are required to have _____. (small passenger vessel regulations)	50 adult life jackets	40 adult life jackets and 10 child life jackets	50 adult life jackets and 5 child life jackets	50 adult life jackets and 2 child life jackets	
4	2897	D	If the result of loading a vessel is an increase in the height of the center of gravity, there will always be an increase in the _____.	metacentric height	righting arm	righting moment	vertical moments	
4	2898	D	Painters on life floats shall be not less than _____. (small passenger vessel regulations)	20 feet in length	30 feet in length	70 feet in length	100 feet in length	
4	2899	A	All small passenger vessels operating on lakes, bays, sounds, or river routes on runs of more than 30 minutes are required to carry _____. (small passenger vessel regulations)	3 red hand flare distress signals and 3 orange smoke hand distress signals	8 red hand flare distress signals and 8 orange smoke hand distress signals	6 red hand flare distress signals and 6 orange smoke hand distress signals	None of the above	
4	2900	C	You have loaded a deck cargo, and the vessel has assumed a 7° list due to negative GM. Your salt water drafts are: FWD 17'-00", AFT 17'-04". If you then load 825 tons of cargo in the lower holds (VCG 11 feet) and take on 500 tons of bunkers (VCG 2.5 feet), what is the final GM? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book)	0.8 foot	1.0 foot	1.7 feet	2.3 feet	
4	2901	A	What is one of the FIRST actions you should take after abandoning and clearing away from a vessel?	Identify the person in charge.	Gather up useful floating objects.	Prepare for arrival of rescue units.	Arrange watches and duties.	
4	2902	D	Vessels in ocean service shall carry sufficient life floats for _____. (small passenger vessel regulations)	25% of all persons on board	50% of all persons on board	75% of all persons on board	100% of all persons on board	
4	2903	D	Life jackets should be marked with the _____.	maximum weight allowed	stowage space assigned	vessel's home port	vessel's name	
4	2904	D	The sailing drafts are: FWD 24'-03", AFT 25'-03" and the GM is 5.5 feet. Use the information in Section 1, the blue pages of the Stability Data Reference Book, to determine the available righting arm at 30° inclination.	2.6 feet	2.9 feet	3.2 feet	3.5 feet	
4	2905	A	Each emergency light must be marked with _____.	the letter "E"	an arrow pointing to the nearest exit	a no-smoking symbol	the word "DANGER"	
4	2906	D	Which vessel must carry a compass on board? (small passenger vessel regulations)	A non-self-propelled vessel	A vessel operating in protected waters with a short restricted route	A vessel operating on the Ohio River	A vessel operating on the Gulf of Mexico	
4	2907	C	The number of kips necessary to change the true mean draft of a MODU one inch is known as _____.	MT1 inch	MH1 inch	KPI	KMD	
4	2908	C	How many months after its expiration date may a Coast Guard license be renewed without retaking the complete exam?	1 month	6 months	12 months	24 months	
4	2909	C	Following a collision or accident, the Master of each vessel involved must render assistance to persons affected by the collision or accident _____.	if he can do so without any risk to his vessel	if he can do so without undue delay	if he can do so without serious danger to his vessel or to individuals on board	without regard to any danger to his vessel	

4	2910	D	You have loaded a deck cargo, and the vessel has assumed a 6° list due to negative GM. Your salt water drafts are: FWD 16'-02", AFT 16'-06". If you then load 825 tons of cargo in the lower holds (VCG 11.5 feet) and take on 624 tons of bunkers (VCG 2.5 feet), what is the final GM? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book)	3.0 feet	2.7 feet	2.4 feet	1.9 feet	
4	2911	B	In the event of a fire, the doors to a stair tower must be closed to prevent the spread of fire by _____.	ventilation	convection	radiation	conduction	
4	2912	A	The SS AMERICAN MARINER is ready to bunker with drafts of FWD 11'-01", AFT 15'-01". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction.	0.68 foot	0.85 foot	0.97 foot	1.30 feet	ST-0086
4	2913	B	The SS AMERICAN MARINER arrived in port with drafts of: FWD 21'-09.5", AFT 22'-09.5". Cargo was loaded and discharged as shown. Use sheet 2 in the white pages of The Stability Data Reference Book to determine the final drafts.	FWD 21'-06.3", AFT 22'-06.6"	FWD 21'-11.3", AFT 23'-01.8"	FWD 22'-06.6", AFT 21'-06.9"	FWD 23'-00.2", AFT 22'-00.4"	ST-0087
4	2914	C	The sailing drafts are: FWD 25'-03", AFT 26'-03" and the GM is 3.5 feet. Use the information in Section 1, the blue pages, of the Stability Data Reference Book, to determine the available righting arm at 25° inclination.	0.8 foot	1.4 feet	2.0 feet	2.6 feet	
4	2915	C	A MODU lists and trims about the _____.	center of gravity	center of buoyancy	center of flotation	centroid of the underwater volume	
4	2916	C	What is the minimum number of B-II hand portable fire extinguishers required on board a 105 GT towboat with a 7500 B.H.P. plant (including the machinery space)? (Uninspected Vessel Regulations)	6	8	9	11	
4	2917	A	For a jack-up, the angle of maximum stability corresponds approximately to the angle of _____.	deck edge immersion	the load line	downflooding	loll	
4	2918	B	Which statement is TRUE concerning the ventilation of engine and fuel tank compartments on uninspected towing vessels using fuel with a flash point of 100°F? (Uninspected Vessel Regulations)	There shall be at least 3 ventilator ducts open to the atmosphere.	At least one exhaust duct shall extend from the open atmosphere to the lower portion of the bilge.	At least one intake duct shall extend from the open atmosphere to the lower portion of the bilge.	Only vessels using fuel with a flash point above 110°F need ventilate engine and fuel compartments.	
4	2919	B	All of the following are part of the fire triangle EXCEPT _____.	fuel	electricity	oxygen	heat	
4	2920	A	You have loaded a deck cargo, and the vessel has assumed an 8° list due to negative GM. Your salt water drafts are: FWD 16'-02", AFT 16'-06". If you then load 1200 tons of cargo in the lower holds (VCG 12 feet) and take on 624 tons of bunkers (VCG 2.5 feet), what is the final GM? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book)	2.0 feet	2.6 feet	3.0 feet	3.4 feet	
4	2921	C	A MODU is inclined at an angle of loll. In the absence of external forces, the righting arm (GZ) is _____.	positive	negative	zero	vertical	

4	2922	D	Whenever practicable, the Certificate of Inspection must be posted _____. (small passenger vessel regulations)	as high as feasible in the pilot house	near the area where passengers embark	in any location desired	in a conspicuous place where it will most likely be observed by the passengers	
4	2923	B	The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.	Available GM 4.01 ft	Available GM 4.16 ft	Available GM 4.69 ft	Available GM 4.81 ft	ST-0088
4	2924	A	Using the information in Section 1, the blue pages, of the Stability Data Reference Book, determine the danger angle for permanent list if the KG is 22.4 feet and the drafts are: FWD 15'-03", AFT 15'-09".	25°	33°	48°	72°	
4	2925	C	The free surface effects of a partially full liquid tank decrease with increased _____.	density of the liquid	placement of the tank above the keel	displacement volume of the MODU	size of the surface area in the tank	
4	2926	B	The sailing drafts are: FWD 16'-06", AFT 17'-04" and the GM is 2.6 feet. Use the information in Section 1, the blue pages, of the Stability Data Reference Book, to determine the available righting arm at 15° inclination.	0.4 foot	0.8 foot	1.2 feet	1.9 feet	
4	2927	A	If the metacentric height is small, a floating MODU will _____.	be tender	have a quick and rapid motion	be stiff	yaw	
4	2928	A	It is recommended that drip collectors required on all updraft carburetors be drained by _____. (small passenger vessel regulations)	a device to automatically return all drip to the engine air intakes	no means whatsoever	a separate pipe leading to the bilges	a pump leading to a point outside the hull	
4	2930	B	You have loaded a deck cargo, and the vessel has assumed a 5° list due to negative GM. Your salt water drafts are: FWD 16'-10", AFT 16'-08". If you then load 1225 tons of cargo in the lower hold (VCG 12 feet) and 875 tons of cargo in the lower 'tween decks (VCG 24 feet), what is the final GM? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book)	0.0 feet	0.8 foot	1.2 feet	1.9 feet	
4	2931	C	If the metacentric height is large, a floating MODU will _____.	be tender	have a slow and easy motion	be stiff	have a tendency to yaw	
4	2932	A	What is FALSE concerning the use of unicellular plastic foam work vests on small passenger vessels? (small passenger vessel regulations)	They may be substituted for up to 50% of the required life jackets.	They shall be of an approved type.	They shall be stowed separately from required lifesaving equipment.	They may be worn by crew members when working near or over the water.	
4	2933	D	Movement of liquid in a tank when a drilling barge inclines causes an increase in _____.	righting arm	metacentric height	height of the uncorrected KG	natural rolling period	
4	2934	C	Using the information in Section 1, the blue pages, of the Stability Data Reference Book, determine the danger angle for permanent list if the KG is 21.8 feet and the drafts are: FWD 23'-05", AFT 24'-04".	37°	31°	26°	21°	
4	2936	C	A vessel's drafts are: FWD 16'-03", AFT 16'-09"; and the KG is 21.3 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the angle of list if the center of gravity is shifted 2 feet off the centerline.	12°	14°	20°	22°	

4	2937	D	A tank of a MODU with a volume of 2,000 cubic feet is pressed with sea water weighing 64 pounds per cubic foot. What is the weight, in kips, of the liquid?	54 kips	67 kips	78 kips	128 kips	
4	2938	A	What equipment must be on a life float? (small passenger vessel regulations)	Two paddles, a light, painter, lifeline and pendants	Water-light, painter, and signal mirror	Water-light and painter only	Two paddles, painter, and six red flares	
4	2939	A	How many distress flares and smoke signals are small passenger vessels on oceans, coastwise or Great Lakes routes required to carry?	Six red hand flares and six orange smoke signals in a watertight container	Two ring life buoys with attached water lights	A battery operated red-flasher lantern	All of the above	
4	2940	B	You have loaded a deck cargo, and the vessel has assumed a 5° list due to negative GM. Your salt water drafts are: FWD 16'-05", AFT 16'-07". If you then load 1200 tons of cargo in the lower holds (VCG 11 feet) and take on 520 tons of bunkers (VCG 2.5 feet), what is the final GM? (Use the material in Section 1, the blue pages, of the Stability Data Reference Book)	2.5 feet	2.0 feet	1.4 feet	0.6 foot	
4	2941	D	The existence of liquids in partially full tanks or compartments of a MODU causes a virtual rise in the height of the _____.	metacenter	center of buoyancy	center of flotation	center of gravity	
4	2942	C	Vessels in ocean service shall carry _____. (small passenger vessel regulations)	life floats for 50% of all persons on board	buoyant apparatus for all persons on board	sufficient inflatable buoyant apparatus for all persons on board	life jackets for 50% of all persons on board	
4	2943	B	A virtual rise in the center of gravity of a MODU may be caused by _____.	filling a partially filled tank	using an on board crane to lift a freely swinging heavy object	emptying a partially filled tank	transferring pipe from the setback area to the pipe rack	
4	2944	D	Using the information in Section 1, the blue pages, of the Stability Data Reference Book, determine the danger angle for permanent list if the KG is 25.0 feet and the drafts are: FWD 15'-04", AFT 15'-08".	12°	17°	20°	23°	
4	2945	B	A virtual rise in the center of gravity of a MODU may be caused by _____.	filling a partially filled tank	using fuel from a pressed fuel tank	emptying a partially filled tank	transferring pipe from the setback area to the pipe rack	
4	2946	C	Your vessel's drafts are: FWD 17'-09", AFT 18'-03"; and the KG is 22.4 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the angle of list if the center of gravity is shifted 1.5 feet off the centerline.	14°	18°	22°	26°	
4	2947	C	A semisubmersible displacing 700,000 cubic feet while floating in sea water (64 pounds per cubic foot) weighs _____.	8,929 long tons	19,509 long tons	20,000 long tons	24,500 long tons	
4	2948	B	Licenses are issued for _____.	3 years	5 years	1 year	2 years	
4	2949	D	Which information are you required to report to the Coast Guard when an accident occurs in which loss of life results? (small passenger vessel regulations)	Location of the occurrence	Number and name of vessel	Names of owners	All of the above	

4	2950	C	You have loaded a deck cargo, and the vessel has assumed a 7° list due to negative GM. Your salt water drafts are: FWD 16'-00", AFT 16'-02". If you then load 1050 tons of cargo in the lower holds (VCG 11.0 feet) and take on 600 tons of bunkers (VCG 2.5 feet), what is the final GM? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book)	2.8 feet	2.5 feet	1.9 feet	1.5 feet	
4	2951	D	A jack-up displacing 350,000 cubic feet while floating in sea water (64 pounds per cubic foot) weighs _____.	10,000 kips	18,169 kips	21,841 kips	22,400 kips	
4	2952	B	Where is the most probable location of the remote shutdown station for cargo pumps on a tank barge carrying oil?	The loading dock	The midpoint of the barge	Within 25 feet of the pump engine	Above the forward rake end	
4	2953	D	When the height of the metacenter has the same value as the height of the center of gravity, the metacentric height is equal to _____.	the height of the metacenter	the height of the center of gravity	the same as half the height of the metacenter	zero	
4	2954	C	Your sailing drafts are: FWD 19'-06", AFT 20'-10" and the GM is 3.3 feet. What will be the angle of list if the #2 starboard deep tank (capacity 100 tons, VCG 19.1 feet, and 24 feet off the centerline) is filled? (Use the data in Section 1, the blue pages, of the Stability Data Reference Book)	Less than 1°	2°	4°	6°	
4	2955	D	For a floating MODU, the center of buoyancy and the metacenter are in the line of action of the buoyant force _____.	only when there is positive stability	only when there is negative stability	only when there is neutral stability	at all times	
4	2956	C	The SS AMERICAN MARINER arrived in port with drafts of: FWD 21'-10.6", AFT 22'-11.6". Cargo was loaded and discharged as shown. Use sheet 2 in the white pages of The Stability Data Reference Book to determine the final drafts.	FWD 22'-00.1", AFT 23'-00.1"	FWD 21'-11.0", AFT 23'-01.2"	FWD 21'-10.0", AFT 22'-10.0"	FWD 21'-08.9", AFT 22'-11.1"	ST-0089
4	2957	D	Your vessel's drafts are: FWD 21'-09", AFT 23'-03"; and the KG is 20.0 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the angle of list if the center of gravity is shifted 1.9 feet off the centerline.	9°	12°	15°	19°	
4	2958	B	The discharge side of every fire pump must be equipped with a _____.	gate valve	pressure gauge	check valve	strainer	
4	2959	A	Which commodity would be regulated by subchapter D, Rules and Regulations for Tank Vessels?	Asphalt	Vinyl Chloride	Benzene	All of the above	
4	2961	A	The Certificate of Inspection issued to a vessel carrying more than six passengers must be _____. (small passenger vessel regulations)	posted on board under glass, if practical	posted on the dock where passengers are embarked	retained at the owner's principal place of business	kept on file by the Collector of Customs	
4	2962	A	The SS AMERICAN MARINER will sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the drafts.	FWD 17'-06", AFT 24'-03"	FWD 19'-03", AFT 22'-06"	FWD 17'-01", AFT 24'-08"	FWD 21'-04", AFT 19'-07"	ST-0090

4	2963	C	Which of the following statements about transmitting distress messages by radiotelephone is INCORRECT?	If no answer is received on the designated distress frequencies, repeat the distress call on any frequency available.	Channel 16 (156.8) may be used for distress messages.	It is advisable to follow a distress message on 2182 kHz by two dashes of 10 to 15 seconds duration.	Distress messages should first be transmitted on 2182 kHz.	
4	2964	A	Using the information in Section 1, the blue pages, of the Stability Data Reference Book, determine the danger angle for permanent list if the KG is 22.2 feet and the drafts are: FWD 23'-06", AFT 24'-03".	26°	30°	34°	53°	
4	2966	A	Each vessel shall be dry-docked or hauled out at intervals not to exceed 2 years if operated in salt water for a total of more than _____. (small passenger vessel regulations)	3 months in any 12 month period since it was last hauled out	6 months in the 3 year period since it was last hauled out	12 months in the 5 year period since it was last hauled out	whenever ownership or management changes	
4	2967	B	When a wind force causes a floating MODU to heel to a static angle, the _____.	centers of buoyancy and gravity are in the same vertical line	righting moment equals the wind-heeling moment	downflooding point is below water	deck-edge immersion occurs	
4	2968	D	Air-cooled radiators for gasoline propulsion engine cooling _____. (small passenger vessel regulations)	must be approved for marine use	must have a double fan installation	must be filled with fresh water	are permitted on vessels less than 65 feet carrying not more than 12 passengers	
4	2969	C	All inlet and discharge fittings below the waterline shall have _____. (small passenger vessel regulations)	cast-iron shut-off valves	a wooden plug with a 36 inch lanyard	an efficient and accessible means of closing	a blank-off flange of similar material	
4	2970	C	An immersion suit must be equipped with a/an _____.	air bottle for breathing	orange smoke canister	whistle, light and retroreflective material	sea dye marker	
4	2971	D	Which statement about immersion suits is TRUE?	The suit's oil resistance is such that it will be serviceable after exposure to gasoline or mineral spirits.	The immersion suit seals in body heat and provides protection against hypothermia indefinitely.	The suit is flameproof and provides protection to the wearer while swimming through burning oil.	All models will automatically turn an unconscious person face-up in the water.	
4	2972	D	Regulations require that approved buoyant work vests _____. (small passenger vessel regulations)	may not be carried on inspected vessels	may be substituted for 10% of the required life jackets	shall be stowed in a place inaccessible to passengers	shall be stowed separately from the required life jackets	
4	2974	C	Using the information in Section 1, the blue pages, of the Stability Data Reference Book, determine the danger angle for permanent list if the KG is 21.2 feet and the drafts are: FWD 27'-11", AFT 28'-07".	72°	52°	24°	19°	
4	2975	A	A quick and rapid motion of a MODU in a seaway is an indication of a(n) _____.	large GM	high center of gravity	excessive free surface	small GZ	
4	2976	C	Aboard small passenger vessels the number of childrens' life jackets carried must be at least what percentage of the total number of persons aboard?	4%	7.50%	10%	15%	
4	2977	A	A slow and easy motion of a MODU in a seaway is an indication of a _____.	small GM	low center of gravity	stiff vessel	large GZ	
4	2978	D	Which equipment is not required for a life float? (small passenger vessel regulations)	Paddles	Light	Painter	Compass	

4	2979	C	Which vessel is required to carry a Category I, 406 MHz EPIRB installed to automatically float free and activate? (small passenger vessel regulations)	A vessel operating exclusively on inland waters	A vessel limited to 20 miles offshore, which carries a radiotelephone on board	A vessel operating on the high seas or beyond 3 miles from the coastline of the Great Lakes	A vessel limited to 100 miles offshore	
4	2981	A	The center of gravity of a freely swinging load suspended from a pedestal crane acts as if it were located at the _____.	counterweight	pedestal	longitudinal centerline	point of suspension	
4	2982	C	The SS AMERICAN MARINER is ready to bunker with drafts of FWD 11'-01", AFT 15'-01". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction.	1.20 feet	0.92 foot	0.73 foot	0.61 foot	ST-0091
4	2983	A	The height of the metacenter above the keel will vary depending on the _____.	draft and beam of the drilling unit	displacement and deadweight of the drilling unit	buoyancy and trim of the drilling unit	tonnage and deadweight of the drilling unit	
4	2984	B	Your sailing drafts are: FWD 24'-02", AFT 24'-10" and the GM is 4.6 feet. What will be the angle of list if #6 starboard double bottom (capacity 95 tons, VCG 2.6 feet, and 21 feet off the centerline) is filled with saltwater? (Use the data in Section 1, the blue pages, of the Stability Data Reference Book)	Less than 1°	2°	4°	7°	
4	2985	C	For a MODU with list, a decrease in GMT will cause the angle of inclination to _____.	stabilize at an angle of loll	decrease	increase	remain constant	
4	2986	A	What must be mounted at a small passenger vessel's operating station for use by the Master and crew?	Emergency Instructions	A tide table for the area	Instructions on artificial respiration	The location of the first aid kit	
4	2987	A	For a MODU with trim, a decrease in GMT will cause the angle of inclination to _____.	increase	decrease	remain constant	stabilize at an angle of loll	
4	2988	A	No person whose license has been revoked shall be issued another license except upon _____.	approval of the Commandant	taking a new examination	approval of the Officer-in-Charge, Marine Inspection	approval of an administrative law judge	
4	2989	C	When would it NOT be necessary to immediately notify the U.S. Coast Guard? (small passenger vessel regulations)	Loss of life	Major damage affecting the seaworthiness of a vessel	Damage amounting to $2,000	Injury to a person which requires medical treatment beyond first aid	
4	2990	C	The SS AMERICAN MARINER arrived in port with drafts of: FWD 28'-04", AFT 30'-08". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.	FWD 29'-01", AFT 30'-01"	FWD 29'-03", AFT 29'-11"	FWD 29'-05", AFT 29'-09"	FWD 29'-07", AFT 29'-07"	ST-0092
4	2992	B	A 98 GT uninspected towing vessel with a 1500 B.H.P. engine capability would be required to carry how many type B-II hand portable fire extinguishers on board? (Uninspected Vessel Regulations)	2	4	6	8	
4	2993	D	Convection spreads a fire by _____.	the transfer of heat across an unobstructed space	burning liquids flowing into another space	transmitting the heat of a fire through the ship's metal	heated gases flowing through ventilation systems	

4	2994	D	Your sailing drafts are: FWD 21'-08", AFT 22'-04" and the GM is 3.2 feet. What will be the angle of list if the #6 port deep tank (capacity 201 tons, VCG 11.4 feet, and 25.5 feet off the centerline) is filled? (Use the data in Section 1, the blue pages, of the Stability Data Reference Book)	2°	4°	6°	8°	
4	2996	B	The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the LCG-FP of the liquid load.	286.1 ft	282.7 ft	278.6 ft	272.4 ft	ST-0093
4	2998	B	The minimum amount of lifesaving equipment required aboard an 85-foot uninspected towing vessel consists of _____. (Uninspected Vessel Regulations)	one approved flotation cushion for each person on board	one approved life preserver for each person on board and one lifebuoy	one approved inflatable vest for each person on board	lifeboat capacity equal to 1 1/2 times the number of persons on board	
4	2999	D	The use of portable electrical equipment in the pumproom on tank barges is prohibited unless _____.	the pumproom is gas-free	spaces with bulkheads common to the pumproom are either gas-free, inert, filled with water, or contain grade E liquid	all other compartments in which flammable vapors and gases may exist are closed and secured	All of the above	
4	3000	D	A rigid lifesaving device ONLY designed for survivors to hold on to while in the water is known as a _____.	liferaft	life float	life preserver	buoyant apparatus	
4	3001	C	Which statement concerning immersion suits is TRUE?	Immersion suits should be worn during routine work on deck to provide maximum protection.	After purchasing, the suit should be removed from its storage bag and hung on a hanger where readily accessible.	Immersion suits must have a PFD light attached to the front shoulder area.	Small leaks or tears may be repaired using the repair kit packed with the suit.	
4	3002	D	A vessels Certificate of Inspection will show the _____. (small passenger vessel regulations)	crew requirements	minimum fire fighting and lifesaving equipment	route permitted	All of the above	
4	3003	C	How is the external flotation bladder of an immersion suit inflated?	It is inflated by a small CO2 bottle that is automatically tripped when the front zipper is at the top of the zipper track.	It is inflated by a small CO2 bottle that is manually tripped.	It is inflated by blowing through an inflation tube.	It inflates by seawater bleeding into the inflation bladder and reacting with a chemical.	
4	3004	B	Using the information in Section 1, the blue pages, of the Stability Data Reference Book, determine the danger angle for permanent list if the KG is 23.7 feet and the drafts are: FWD 28'-00", AFT 28'-06".	16°	21°	41°	56°	
4	3005	D	All vessels having a Certificate of Inspection and operating exclusively in salt water shall be dry-docked or hauled out _____. (small passenger vessel regulations)	once in each calendar year	once in each fiscal year	at the time of each inspection	at intervals not to exceed 2 years	
4	3006	C	The SS AMERICAN MARINER will sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the drafts.	FWD 26'-03", AFT 27'-08"	FWD 26'-08", AFT 25'-07"	FWD 25'-06", AFT 26'-11"	FWD 26'-11", AFT 25'-06"	ST-0094
4	3007	C	A floating MODU with an initial negative metacentric height _____.	will capsize	will incline further	may lie at an angle of loll	may be initially level	

4	3008	D	The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the LCG-FP of the liquid load.	280.2 ft	284.1 ft	285.3 ft	286.2 ft	ST-0095
4	3009	A	Which type of ventilation is required for enclosed spaces containing gasoline, machinery, or fuel tanks? (small passenger vessel regulations)	Natural supply and mechanical exhaust	Mechanical supply and natural exhaust	Mechanical supply and mechanical exhaust	Natural supply and natural exhaust	
4	3010	A	The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.	Available GM 4.07 ft	Available GM 4.60 ft	Available GM 4.69 ft	Available GM 4.81 ft	ST-0096
4	3011	B	A semisubmersible which will not remain upright and will assume a list either to port or starboard is likely to have _____.	a large TCG	a negative GM	excessive ballast	insufficient deck load	
4	3012	B	You are on the cargo vessel represented in the blue pages of the Stability Data Reference Book. Your present KG is 22.3 feet and the drafts are FWD 21'-07", AFT 22'-05". The following cargo must be loaded: (1) 1120 tons, KG 33 feet; (2) 990 tons, KG 25 feet. How many tons of deck cargo with a KG of 47 feet may be loaded if the ship is to sail with a GM of not less than 2.1 feet and not exceed the freeboard draft?	0 tons	60 tons	103 tons	149 tons	
4	3013	B	Semisubmersibles A and B are identical. However, "A" is more tender than "B". This means that "A" relative to "B" has a _____.	lower KG	smaller GM	smaller roll angle	larger GZ	
4	3014	D	Using the information in Section 1, the blue pages, of the Stability Data Reference Book, determine the danger angle for permanent list if the KG is 21.8 feet and the drafts are: FWD 19'-05", AFT 20'-01".	52°	45°	31°	26°	
4	3015	A	An inclined semisubmersible with a very short rolling period about a constant angle of list is likely to have _____.	an off-center TCG	an LCG greater than level vessel LCB	a negative GM	excessive free surfaces	
4	3016	C	Hand held red flares expire 42 months from the date of manufacture. Floating orange smoke distress signals expire after how many months?	18 months	24 months	42 months	60 months	
4	3017	D	A semisubmersible which flops between forward and aft trim angles is likely to have _____.	an off-center TCG	LCG greater than level-vessel LCB	KMT greater than KML	KML less than KGL	
4	3018	D	Each life float on an inspected vessel shall be fitted and equipped with _____. (small passenger vessel regulations)	a lifeline, a painter, and one paddle	a lifeline, a painter, and a water light	two paddles, a light, and a lifeline	two paddles, a light, a lifeline, a painter and pendants	
4	3019	D	All vessels not limited to daylight service shall be fitted with a ring life buoy _____. (small passenger vessel regulations)	on the stern of the vessel	with a twenty fathom line attached	with no line attached	with a water light to be attached during nighttime operation	
4	3021	B	A semisubmersible which flops between port and starboard angles of list is likely to have _____.	KMT greater than KML	KMT less than KGT	an off-center LCG	TCG greater than level-vessel TCB	
4	3022	B	Vessels operating in warm water whose routes are restricted to 20 miles from a harbor of safe refuge shall carry life floats or buoyant apparatus for not less than _____. (small passenger vessel regulations)	25% of all persons on board	50% of all persons on board	75% of all persons on board	100% of all persons on board	
4	3023	A	A semisubmersible which flops between forward and aft angles of trim is likely to have _____.	KML less than KGL	an off-center LCG	LCG greater than LCB	KML greater than KMT	

4	3024	C	Your sailing drafts are: FWD 17'-07", AFT 18'-05" and the GM is 3.4 feet. What will be the angle of list if #4 port double bottom (capacity 140 tons, VCG 2.6 feet, and 26 feet off the centerline) is filled with saltwater? (Use the data in Section 1, the blue pages, of the Stability Data Reference Book)	Less than 1°	3°	6°	9°	
4	3025	D	A semisubmersible with a negative GM flops to an angle of _____.	heel	trim	list	loll	
4	3026	B	Who is required to prepare and post Emergency Instructions in a conspicuous place accessible to crew and passengers? (small passenger vessel regulations)	The builder of the vessel	The owner or Master of the vessel	The U.S. Coast Guard	The classification society	
4	3027	D	If the result of loading a MODU is an increase in the height of the center of gravity, there will always be an increase in the _____.	metacentric height	righting arm	righting moment	vertical moments	
4	3028	C	While serving as Master on board your vessel, your license must be _____. (small passenger vessel regulations)	displayed in the company office on shore	displayed in your home	in your possession on board the vessel	kept in the Coast Guard office where you sat for your license	
4	3030	D	The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the KG of the liquid load.	7.7 feet	9.1 feet	9.9 feet	10.6 feet	ST-0097
4	3031	D	The natural rolling period of a drilling barge increases when _____.	GM increases	the setback is placed in the pipe racks	free surfaces are reduced	ice accumulates above deck	
4	3032	A	Controls for a fixed carbon dioxide system shall be mounted _____. (Uninspected Vessel Regulations)	directly outside the space protected by the system	as near the gas cylinders as possible	in the pilothouse	on the main deck near the bow	
4	3033	B	The effects of free surface on initial stability depend upon the dimensions of the surface of the free liquids and the _____.	volume of liquid in the tank	volume of displacement of the vessel	location of the tank in the vessel	height of the center of gravity of the vessel	
4	3034	B	Your sailing drafts are: FWD 14'-04", AFT 16'-02" and the GM is 3.0 feet. What will be the angle of list if #5 port double bottom (capacity 195 tons, VCG 2.6 feet, and 18.5 feet off the centerline) is filled with saltwater? (Use the data in Section 1, the blue pages, of the Stability Data Reference Book)	4°	8°	13°	16°	
4	3035	B	The external inflation bladder on an immersion suit should be inflated _____.	before you enter the water	after you enter the water	after one hour in the water	after you notice that your suit is losing buoyancy	
4	3036	C	The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the LCG-FP of the liquid load.	262.3 ft	264.9 ft	268.1 ft	270.3 ft	ST-0098
4	3037	C	An immersion suit should be equipped with a/an _____.	air bottle for breathing	whistle and hand held flare	whistle, strobe light and reflective tape	whistle, hand held flare and sea dye marker	
4	3038	B	The SS AMERICAN MARINER is ready to bunker with drafts of FWD 18'-06", AFT 20'-06". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction.	1.10 feet	0.91 foot	0.72 foot	0.68 foot	ST-0099

4	3039	A	What is a requirement for remote manual shutdown stations for internal combustion engine driven cargo pumps on tank barges?	They must be conspicuously marked.	They must be located at least 10 feet from the engine.	There must be at least two such shutdown devices.	The valve rods shall be fitted with stuffing boxes.	
4	3040	A	A vessel's drafts are: FWD 19'-00", AFT 21'-10". How much more cargo can be loaded to have the vessel down to the freeboard draft? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book)	4819 tons	4982 tons	5012 tons	5099 tons	
4	3041	B	Under the Pollution Regulations, garbage disposal records must be kept _____.	one year	two years	until the end of the voyage	until the next Coast Guard inspection	
4	3042	C	The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the LCG-FP of the liquid load.	271.2 ft	260.3 ft	251.9 ft	247.2 ft	ST-0100
4	3043	B	Which statement concerning immersion suits is TRUE?	Immersion suits should be worn while performing routine work on deck.	After purchasing, the suit should be stowed in the storage bag in which it was received.	During the annual maintenance, the front zipper should be lubricated using light machine oil or mineral oil.	Any tear or leak will render the suit unserviceable and it must be replaced.	
4	3044	B	Using the information in Section 1, the blue pages, of the Stability Data Reference Book, determine the danger angle for permanent list if the KG is 22.4 feet, and the drafts are: FWD 19'-06", AFT 20'-00".	12°	24°	48°	52°	
4	3045	C	You are testing the external flotation bladder of an immersion suit and find it has a very slow leak. Which action should be taken?	Replace the suit.	Replace the inflation bladder.	Contact the manufacturer for repair instructions.	Some leakage should be expected and a topping off tube is provided; no other action is necessary.	
4	3046	C	How long is the Certificate of Inspection issued to a 50 gross ton, passenger carrying vessel which is 60 feet (18 meters) in length valid? (small passenger vessel regulations)	One year	Two years	Three years	Four years	
4	3047	B	Automatic fire dampers in ventilation systems are operated by use of _____.	remotely operated valves	fusible links	C02 system pressure switches	heat or smoke detectors	
4	3048	A	What is required for a dry exhaust pipe? (small passenger vessel regulations)	Noncombustible hangers and supports	Insulation from combustible material	An automatic damper	A rain spray and spray cap	
4	3050	B	A vessel's drafts are: FWD 14'-04", AFT 15'-08". How much more cargo can be loaded to have the vessel down to the freeboard draft? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book)	7280 tons	7879 tons	8004 tons	8104 tons	
4	3051	D	The external flotation bladder on an immersion suit should be inflated _____.	only after two hours in the water	only after four hours in the water	before entry into the water	upon entry into the water	
4	3052	D	Which statement is TRUE concerning work vests on a small passenger vessel?	They may be worn during drills	They may be substituted for up to 10% of the required life jackets on board	They need not be an approved type	They must be stowed separately from approved life jackets	
4	3053	D	On an OSV, when may a work vest be substituted for a required life jacket?	To replace a damaged life jacket	For use during fire drills	For use during boat drills	At no time	

4	3054	B	Your sailing drafts are: FWD 22'-04", AFT 23'-06" and the GM is 3.2 feet. What will be the angle of list if #3 starboard double bottom (capacity 97 tons, VCG 2.5 feet and 23 feet off the centerline) is filled with saltwater? (Use the data in Section 1, the blue pages, of the Stability Data Reference Book)	Less than 1°	3°	7°	11°	
4	3055	B	Which statement is TRUE concerning life jackets?	Buoyant vests may be substituted for life jackets.	Life jackets are designed to turn an unconscious person's face clear of the water.	Life jackets must always be worn with the same side facing outwards to float properly.	Lightly stained or faded life jackets will fail in the water and should not be used.	
4	3056	C	The service use of pyrotechnic distress signals measured from the date of manufacture shall be limited to a period of _____.	24 months	36 months	42 months	60 months	
4	3057	A	Each buoyant work vest on an OSV must be _____.	Coast Guard Approved	marked with the name of the unit	equipped with a waterlight	All of the above	
4	3058	D	Life floats and buoyant apparatus shall be marked _____. (small passenger vessel regulations)	with the vessel's name in 3" letters	conspicuously in 1-1/2" letters with the number of persons allowed	with the vessel's name on all paddles	All of the above	
4	3059	A	How many ring life buoys must a small passenger vessel, of less than 65 feet in length, carry?	1	2	3	4	
4	3060	C	A vessel's drafts are: FWD 19'-00", AFT 17'-02". How much more cargo can be loaded to have the vessel down to the freeboard draft? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book)	5928 tons	6016 tons	6149 tons	6242 tons	
4	3061	C	When transferring survivors from a survival craft to a rescue vessel, personnel on board the craft should _____.	remove their lifejackets to make it easier to climb on board the rescue vessel	climb on top of the survival craft while waiting their turn to transfer to the rescue vessel	remain seated inside the survival craft and make the transfer one person at a time	enter the water and swim over to the rescue vessel	
4	3062	D	The Master of a vessel shall make sure the EPIRB is tested _____. (small passenger vessel regulations)	daily	weekly	every two weeks	monthly	
4	3063	C	The first AMVER position report must be sent within how many hours of departure?	48	36	24	12	
4	3064	A	Your sailing drafts are: FWD 18'-03", AFT 19'-07" and the GM is 4.3 feet. What will be the angle of list if #2 starboard double bottom (capacity 78 tons, VCG 2.7 feet, and 24.5 feet off the centerline) is filled with saltwater? (Use the data in Section 1, the blue pages, of the Stability Data Reference Book)	3°	5°	7°	9°	
4	3066	B	Prior to getting underway for the day's operations, every small passenger vessel shall have it's steering gear tested by _____.	the Mate on watch	the Master	a Mate or Designated Duty Engineer	a licensed Engineer	
4	3067	A	The canopy of your liferaft should _____.	go into place as your liferaft is inflated	be put up after everyone is aboard	be put up only in severe weather	be used as a sail if the wind is blowing	
4	3069	C	Unless otherwise stated, the term "approved" applied to a vessel's equipment, means approved by the _____. (small passenger vessel regulations)	American Bureau of Shipping	Congress of the United States	Commandant of the Coast Guard	Board of Fire Underwriters	

4	3070	D	Your vessel's drafts are: FWD 14'-04", AFT 12'-08". How much more cargo can be loaded to have the vessel down to the freeboard draft? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book)	6500 tons	7001 tons	7415 tons	8699 tons	
4	3071	A	The free surface effects of a partially-full tank in a floating MODU increase with the _____.	surface area of the fluid in the tank	displacement volume of the MODU	draft of the MODU	height of the tank above the keel	
4	3072	B	The SS AMERICAN MARINER has on board 6450 tons of cargo with an LCG-FP of 274.46 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo.	LCG-FP 272.6 feet	LCG-FP 269.8 feet	LCG-FP 266.5 feet	LCG-FP 263.8 feet	ST-0101
4	3073	B	The SS AMERICAN MARINER arrived in port with drafts of: FWD 28'-04", AFT 29'-10". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.	FWD 27'-01", AFT 29'-11"	FWD 27'-03", AFT 29'-09"	FWD 27'-05", AFT 29'-07"	FWD 27'-07", AFT 29'-05"	ST-0102
4	3074	B	Your sailing drafts are: FWD 17'-07", AFT 18'-03" and the GM is 2.8 feet. What will be the angle of list if the #4 starboard double bottom (capacity 141 tons, VCG 2.6 feet, and 23.8 feet off the centerline) is filled with saltwater? (Use the data in Section 1, the blue pages, of the Stability Data Reference Book)	6°	8°	10°	12°	
4	3075	B	Although KG for a MODU in lightweight is relatively high, the vessel is stiff because _____.	KM is small	KM is high	BL is small	KB is large	
4	3076	C	The SS AMERICAN MARINER is ready to bunker with drafts of FWD 11'-01", AFT 15'-01". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction.	0.87 foot	0.98 foot	1.14 feet	1.25 feet	ST-0103
4	3077	A	The purpose of the inclining experiment on a MODU is to determine the _____.	lightweight and lightweight center of gravity location	position of the center of buoyancy	position of the metacenter	maximum load line	
4	3078	D	If you see an individual fall overboard, you should _____.	throw him/her a life buoy	hail "man overboard"	pass the word to the bridge	All of the above	
4	3080	C	When inspecting a tank barge to see that it has all the required fire extinguishers and other safety items aboard, which of the following is the best source for determining what is required?	The supervisor in charge of the dock to which the barge is tied up	Part 38 of the Rules and Regulations for Tank Vessels	The Certificate of Inspection of the barge	The local fire marshal	
4	3081	B	A person who observes an individual fall overboard from an OSV should _____.	immediately jump into the water to assist the individual	call for help and keep the individual in sight	run to the radio room to send an emergency message	go to the control room for the distress flares	
4	3082	B	On vessels subject to the provisions of 46 CFR Subchapter T, life jackets shall be _____.	kept locked up at all times when underway	stored in convenient places throughout the accommodation spaces	inaccessible to passengers	on the topmost deck of the vessel at all times	
4	3083	D	The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the KG of the liquid load.	7.7 feet	9.1 feet	9.9 feet	10.7 feet	ST-0104

4	3084	C	All life floats and buoyant apparatus shall be clearly and legibly marked or painted with the _____. (small passenger vessel regulations)	manufacturer's price, stock number, and inspection date	vessel's name, tonnage, and horsepower	vessel's name in 3" letters	vessel's name, and number of persons allowed, all in at least 3" inch high letters and numbers	
4	3085	B	The vertical distance between G and M of a MODU is used as a measure of _____.	stability at all angles of inclination	initial stability	stability at angles less than the limit of positive stability	stability at angles less than the downflooding angle	
4	3086	D	Which barge in your tow would require a cargo information card to be carried in the pilothouse?	A tank barge with a sign reading "No Visitors, No Smoking, No Open Lights"	An open hopper barge carrying coal	A gas-free chlorine barge	An empty (not gas-free) barge that last carried benzene	
4	3089	C	What is NOT a responsibility of the tankerman in charge of loading an unmanned tank barge?	Enforcement of smoking restrictions	Restricting vessels from coming alongside the barge	Insuring that a combustible gas indicator is aboard	Protecting cargo hose with chafing gear	
4	3090	D	Which statement is TRUE concerning spare charges for portable fire extinguishers on unmanned tank barges?	Spare charges shall be carried for at least 50 percent of each size and variety required on board.	If the unit cannot be charged by the vessel's personnel, one spare unit shall be carried in lieu of spare charges.	Spare charges shall be stowed in watertight containers on deck.	Regulations concerning spare charges do not apply to unmanned barges.	
4	3091	A	When will the float-free emergency position indicating radio beacon be activated after abandoning ship?	Immediately after floating free	After about one hour when the salt water activates the battery	Only when keyed by the radar of another vessel	Only when daylight activates the photovoltaic cell	
4	3092	B	Why is it necessary to extend ventilators of gasoline powered vessels to the bilges?	To keep them dry, and thus easier to clean	To remove fuel vapors which are heavier than air	To provide adequate air to the engines	To cool the machinery areas	
4	3093	C	You are preparing to load fuel oil on a vessel of 150 gross tons constructed after June 30, 1974. Before loading, you must check that the fuel oil tank vents _____.	are not obstructed by on-deck cargo	have a fire extinguisher within the immediate area	have containment capacity for at least 5 gallons	are opened and the flame screen replaced	
4	3094	C	A type B-III CO2 extinguisher has a rated capacity of _____.	15 lbs	25 lbs	35 lbs	45 lbs	
4	3095	A	While retrieving the survival craft, the engine should be stopped _____.	when the craft clears the water	when the cable has been attached	on approach to the platform	at the embarkation	
4	3096	B	The shut off valve at the gasoline tank which can be operated from outside the tank space _____.	controls the amount of gasoline to the engine	shuts off the gasoline supply at the tank	is used if the gasoline tank leaks	All of the above	
4	3097	B	When retrieving the survival craft, the winch operator should stop the winch and check _____.	that all personnel are seated in the craft	that the cable has not jumped any grooves on the drum	which way the wind is blowing	the hydraulic fuel level before lifting	
4	3098	C	Assuming that the recommended hatch loading sequence is followed, how many long tons of iron ore may be loaded through hatches 8 & 12 while using a single belt loader to arrive at a desired mean keel draft of 28'-03"? (use the Guidance Manual for Loading M.V. GRAND HAVEN).	460 tons per hatch	520 tons per hatch	690 tons per hatch	730 tons per hatch	
4	3099	D	Which type of power may a towing vessel use to drive the cargo pumps of a tank barge?	Only air	Only steam	Air or steam only	Steam, air, or electricity	
4	3100	C	Portable fire extinguishers must be provided for the cargo tank area of an unmanned tank barge _____.	only when fully loaded	if one or more tanks are full	when transferring cargo	only when the barge is being towed	

4	3101	C	Adding the transverse free surface correction to the uncorrected height of the center of gravity of a MODU yields _____.	FSCT	KG	KGT	GMT	
4	3102	A	Which type of fixed fire-extinguishing system is approved for use on board uninspected vessels? (Uninspected Vessel Regulations)	Carbon dioxide	Steam smothering	Chemical foam	All of the above	
4	3103	C	Adding the longitudinal free surface correction to the uncorrected height of the center of gravity of a MODU yields _____.	FSCL	KG	KGL	GML	
4	3104	B	An emergency check-off list is required on vessels carrying six or fewer passengers for hire. The list must contain information on all of the following EXCEPT _____. (Uninspected Vessel Regulations)	precautions for rough weather	actions required in the event of accident	procedures for man overboard emergencies	emergency procedures for fire at sea	
4	3105	B	Subtracting the height of the center of gravity corrected for transverse free surface effects from the height of the transverse metacenter of a MODU yields _____.	GM	GMT	KGT	KMT	
4	3106	C	The SS AMERICAN MARINER has on board 5480 tons of cargo with an LCG-FP of 272.20 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo.	LCG-FP 272.2 feet	LCG-FP 268.3 feet	LCG-FP 265.1 feet	LCG-FP 263.4 feet	ST-0105
4	3107	B	Subtracting the height of the center of gravity corrected for longitudinal free surface effects from the height of the longitudinal metacenter of a MODU yields _____.	GM	GML	KGL	KML	
4	3108	C	A CO2 extinguisher which has lost 10% of its charge must be _____.	used at the earliest opportunity	hydro tested	recharged	weighed again in one month	
4	3109	A	The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the KG of the liquid load.	3.9 feet	4.3 feet	4.7 feet	5.1 feet	ST-0106
4	3110	B	When a vessel is not in compliance with its Certificate of Inspection, which certificate may be issued to allow its movement to a repair facility? (small passenger vessel regulations)	Change of Employment	Permit to Proceed	Application for Inspection	Temporary Certificate of Inspection	
4	3111	B	For a MODU with list, an increase in GMT will cause the inclination to _____.	stabilize at an angle of loll	decrease	increase	remain constant	
4	3112	C	An 85 foot uninspected towing vessel with a crew of ten (10) persons on board must carry at LEAST _____. (Uninspected Vessel Regulations)	10 approved ring life buoys and 10 approved life preservers	10 approved work vests	10 approved life jackets and 1 approved ring life buoy	11 approved life preservers	
4	3113	B	For a MODU with trim, an increase in GMT will cause the inclination to _____.	stabilize at an angle of loll	decrease	increase	remain constant	
4	3115	B	For a MODU with transverse inclination, an increase in GMT causes _____.	list to stabilize at an angle of loll	list to decrease	trim to decrease	list to increase	
4	3116	C	According the Lifesaving regulations in Subchapter W, fire and abandon ship drills must be held within 24 hours of leaving port if the percentage of the crew that has not participated in drills aboard that particular vessel in the prior month exceeds _____.	5%	10%	25%	40%	

4	3117	D	For a MODU with longitudinal inclination, an increase in GML causes _____.	list to stabilize at an angle of loll	trim to stabilize at an angle of loll	trim to increase	trim to decrease	
4	3118	A	The SS AMERICAN MARINER has on board 4850 tons of cargo with an LCG-FP of 275.72 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo.	LCG-FP 268.3 feet	LCG-FP 265.4 feet	LCG-FP 261.2 feet	LCG-FP 256.9 feet	ST-0107
4	3119	B	Life floats and buoyant apparatus may be stowed in tiers, one above the other, to a height of not more than _____. (small passenger vessel regulations)	3 feet	4 feet	5 feet	6 feet	
4	3120	C	Before issuing an initial Certificate of Inspection, the construction arrangement and equipment of a vessel must be acceptable to the _____. (small passenger vessel regulations)	American Bureau of Shipping Surveyor	U.S. Salvage Marine Surveyor	Officer in Charge, Marine Inspection	U.S. Customs Collector	
4	3121	A	To prevent the spread of fire by conduction you should _____.	cool the bulkheads around the fire	remove combustibles from direct exposure	close all openings to the area	shut off all electric power	
4	3122	A	All life jackets carried on board small passenger vessels are required to be marked _____. (small passenger vessel regulations)	with the vessel's name	with the vessel's official number	with the maximum weight to be held by the life preserver	with the maximum serviceable life of the life preserver	
4	3123	C	You are monitoring VHF Channel 16 when you receive a call to your vessel, TEXAS PRIDE. What is the proper way to answer this call?	"This is TEXAS PRIDE. Pick a channel."	"This is TEXAS PRIDE on Channel 16. Come back."	"This is TEXAS PRIDE, WSR 1234, reply Channel 10."	"Please stand by. We're busy right now."	
4	3124	A	On a life float or buoyant apparatus, the life line is _____. (small passenger vessel regulations)	secured around the sides and ends in bights of not longer than three feet	woven into a net and secured in the center of the float	used for securing unconscious persons to the sides	the lanyard for securing provisions	
4	3125	D	The center of flotation for the COASTAL DRILLER is located at the geometric center of the _____.	underwater volume	above water volume	amidships section	waterplane area	
4	3126	D	A cargo information card does NOT contain _____.	instructions for the safe handling of the cargo	appearance and odor characteristics of the cargo	precautions to be observed in case of a spill or leak	duties of the person in charge during the transfer of cargo	
4	3127	A	Automatic fire dampers in ventilation systems are operated by use of a _____.	fusible link	remote operated valve	C02 system pressure switch	heat or smoke detector	
4	3128	D	You are Master of a 20-ton ketch. You wish to heave-to on the starboard tack in 35 knots of wind. Which action would be appropriate?	Set your storm jib aback to port and secure your rudder hard to starboard.	Secure your reefed mizzen aback to starboard and your storm jib aback to port. Secure your rudder hard to port.	Sheet your mizzen in flat and secure your rudder amidships.	Secure your storm jib aback to starboard and sheet your reefed mizzen in flat. Secure your rudder hard to starboard.	
4	3130	C	What is the minimum height of rails on passenger decks of ferryboats, excursion vessels, and vessels of a similar type? (small passenger vessel regulations)	18 inches (.5 m) high	24 inches (.6 m) high	39-1/2 inches (1 m) high	42 inches (1.1 m) high	
4	3131	C	Damage stability of a MODU is the stability _____.	which exists when the wind speed is less than 50 knots	before collision	after flooding	at survival draft	
4	3132	D	If the water level is rising in the bilge of a survival craft, you should first _____.	increase the speed of the survival craft	shift all personnel to the bow	shift all personnel to the stern	check the bilge drain plug	
4	3133	D	The stability which exists after the unintentional flooding of a compartment on a MODU is called _____.	intact stability	initial stability	immersion stability	damage stability	

4	3134	B	Which is a B-II fire extinguisher? (Uninspected Vessel Regulations)	A 2-1/2 gallon water (stored pressure) extinguisher	A 15 lb. CO2 extinguisher	A 2 lb. dry chemical extinguisher	A 1-1/4 gallon foam extinguisher	
4	3135	A	While the DEEP DRILLER is operating loaded as shown in Sample Load Form #4 (Drilling), casing is accidentally dropped over the port side. If the port forward inclination is slowly increasing, which tank is probably damaged?	1P	2P	1S	3P	
4	3136	A	Where should the tops of vents from gasoline tanks terminate?	In open air	Inside cabins near the overhead	In the machinery space near the engine air intake	Underwater	
4	3137	B	With damaged floating vessels, the most important consideration is the preservation of _____.	bilge pumping capacity	reserve buoyancy	level attitude	instability	
4	3138	B	Assuming that the recommended hatch loading sequence is followed, how many long tons of iron ore may be loaded through hatch No. 20 while using a single belt loader to arrive at a desired mean keel draft of 29'-06"? (Use the Guidance Manual for Loading M.V. GRAND HAVEN.)	1550 tons	2920 tons	3010 tons	3515 tons	
4	3139	C	Open ullage holes in tanks which are not gas-free must be protected by _____.	PV valves	warning signs	flame screens	stop-check valves	
4	3140	A	Hatches on small passenger vessels operating on exposed waters and exposed to the weather _____.	must be watertight	must be open at all times	need not be watertight	None of the above	
4	3141	D	The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.	Available GM 4.81 ft	Available GM 4.69 ft	Available GM 4.60 ft	Available GM 4.28 ft	ST-0108
4	3142	D	In the machinery space of all uninspected motor vessels, there must be one type B-II hand portable fire extinguisher for every _____. (Uninspected Vessel Regulations)	500 S.H.P. of the main engines or fraction thereof	1000 S.H.P. of the main engines or fraction thereof	500 B.H.P. of the main engines or fraction thereof	1000 B.H.P. of the main engines or fraction thereof	
4	3143	C	The instructions for rescue boats and liferafts on an OSV must be approved by the _____.	lease operator	Minerals Management Service	Coast Guard	person-in-charge of the unit	
4	3144	D	On a lifeboat equipped with Rottmer-type releasing gear, turning the releasing lever releases _____.	the painter	the after boat fall only if the boat is waterborne	both falls at the same time only if the boat is waterborne	both falls at the same time even if the boat has not reached the water	
4	3145	C	The DEEP DRILLER, while loaded as shown in the Sample Load Form #4 (Drilling), suffers damage to the port forward column below the waterline. You should pump from tank _____.	C1P	8P	1P	2S	
4	3146	B	The SS AMERICAN MARINER has on board 6048 tons of cargo with an LCG-FP of 270.89 feet. See the distribution of the cargo to be loaded. Use the white pages of the Stability Data Reference Book to determine the final LCG-FP of the cargo.	LCG-FP 263.4 feet	LCG-FP 266.6 feet	LCG-FP 267.8 feet	LCG-FP 269.4 feet	ST-0109
4	3147	D	The DEEP DRILLER, while loaded as shown in the Sample Load Form #4 (Drilling), suffers severe damage to the starboard forward column below the waterline. You should pump from tank _____.	C1S	8S	2P	1S	

4	3148	C	The SS AMERICAN MARINER arrived in port with drafts of: FWD 29'-06", AFT 29'-02". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.	FWD 29'-07", AFT 29'-08"	FWD 29'-05", AFT 29'-10"	FWD 29'-03", AFT 30'-00"	FWD 29'-01", AFT 30'-02"	ST-0110
4	3149	D	To find the cause of a gasoline engine's failure to start, you should _____.	break the joint in the fuel line at the engine and let the gas run in the bilges	disconnect the wires at the spark plugs and make the spark jump the gap	prime the engine with ether through spark plug openings	ventilate the space, then check the battery, spark plugs, carburetor, and fuel line	
4	3150	C	Your vessel must have a B-II fire extinguisher. Which extinguisher fulfills this requirement? (small passenger vessel regulations)	4 lb. carbon dioxide	4 lb. dry chemical	15 lb. carbon dioxide	12 gallon foam	
4	3151	B	The DEEP DRILLER, while loaded as shown in the Sample Load Form #4 (Drilling), suffers severe damage to the starboard aft column below the waterline. You should pump from tank _____.	C1S	9S	2P	2S	
4	3152	D	U. S. Coast Guard approved work vests may be substituted life jackets _____. (Uninspected Vessel Regulations)	aboard work vessels	aboard towing vessels	aboard sailing vessels	under no circumstances	
4	3153	C	The DEEP DRILLER, while loaded as shown in the Sample Load Form #4 (Drilling), suffers severe damage to the port aft column below the waterline. You should pump from tank _____.	C1S	9S	10P	2S	
4	3154	A	How many escape routes must normally exist from all general areas accessible to the passengers or where the crew may be quartered or normally employed? (small passenger vessel regulations)	Two	Three	Four	Five	
4	3155	C	The DEEP DRILLER, while loaded as shown in the Sample Load Form #4 (Drilling), suffers damage to the port center column below the waterline. Among the tanks from which you should pump is tank _____.	C1S	9S	9P	2S	
4	3156	D	Lifesaving regulations in Subchapter W require that a fire drill include _____.	starting the fire pumps	checking the operation of watertight doors	checking arrangements for abandon ship	All of the above	
4	3157	B	The DEEP DRILLER, while loaded as shown in the Sample Load Form #4 (Drilling), suffers damage to the starboard center column below the waterline. Among the tanks from which you should pump is tank _____.	C1S	9S	9P	2P	
4	3158	C	Electric generators can be protected against overload _____.	with switches	with a governor on the engine	with fuses or circuit breakers	by using heavy wire	
4	3159	D	Fusible-link fire dampers are operated by _____.	a break-glass and pull-cable system	electrical controls on the bridge	a mechanical arm outside the vent duct	the heat of a fire melting the link	
4	3160	B	Fixed ballast, if used, may be _____. (small passenger vessel regulations)	discharged or moved at any time	moved temporarily for examination or repair of the vessel, when done under the supervision of an inspector	moved under the supervision of the owner, Master or shipyard	moved under any condition except extreme emergency	

4	3161	A	The wooden plug fitted tightly in the vent of a damaged tank may prevent the tank from _____.	filling completely	developing free surfaces	developing free surface moments	collapsing	
4	3162	C	All life jackets and life buoys shall be marked with the vessel's name in letters at least _____. (small passenger vessel regulations)	1/2 inch high	1 inch high	Height not specified	1-1/2 inches high	
4	3163	B	A continual worsening of the list or trim of any floating MODU indicates _____.	negative GM	progressive flooding	structural failure	an immediate need to counterflood	
4	3164	D	When discharging cargo from a tank barge, in which case may the cargo pass through or over the towing vessel?	With permission from the person in charge of the towing vessel	With permission from the person in charge of the shore facility	When off-loading grade C cargo	In no case	
4	3165	A	The wooden plug inserted in the vent of a damaged tank of a MODU should be removed in case it is decided to _____.	pump from the damaged tank	fight a fire	abandon the rig	use the crossover system	
4	3166	B	You are underway with a tow consisting of six barges containing hazardous chemicals. Which statement is FALSE concerning a cargo information card?	It must be carried in the pilothouse, readily available for each chemical carried.	It must be posted on the lead barge of the tow only.	It must be posted on each barge on the tow.	It contains information on procedure for spills or leaks.	
4	3167	C	Topside icing that blocks freeing ports and scuppers _____.	is usually below the center of gravity and has little effect on stability	will cause water on deck to pocket and increase stability	may decrease stability by increasing free surface effect due to water on deck	increases the effective freeboard and increases the wind-heel affect	
4	3168	D	The SS AMERICAN MARINER has on board 6080 tons of cargo with an LCG-FP of 270.71 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo.	LCG-FP 270.8 feet	LCG-FP 269.2 feet	LCG-FP 267.6 feet	LCG-FP 266.7 feet	ST-0111
4	3169	B	Which license or document enable a person to serve as person in charge of a tank barge which is transferring cargo?	Operator of Uninspected Towing Vessels	Certified Tankerman	Able Seaman	Ordinary Seaman/Wiper	
4	3170	C	What would be an example of a B-I extinguisher? (small passenger vessel regulations)	2.5 gallon foam	10 pound carbon dioxide	2 pound dry chemical	5 pound foam	
4	3171	A	Automatic fire dampers in ventilation systems are operated by use of _____.	fusible links	remotely operated valves	C02 system pressure switches	heat or smoke detectors	
4	3172	D	Your vessel has a gasoline engine and a mechanical exhaust ventilation system. BEFORE starting the engine, the exhaust blower should be run long enough to _____.	warm up the exhaust blower motor	provide a proper supply of fresh air for the engine(s)	see the system is in good operating condition	insure at least one complete change of air in the compartments concerned	
4	3173	B	What is considered to be a B-II portable fire extinguisher?	2 pound dry chemical	2-1/2 gallon foam	4 pound carbon dioxide	All of the above	
4	3174	A	What is considered to be a B-II portable fire extinguisher?	2-1/2 gallon foam	4 pound carbon dioxide	2 pound dry chemical	All of the above	
4	3175	C	The jettisoning of topside weight from a MODU serves what purpose?	It returns the MODU to an even keel.	It reduces free surface effect.	It lowers the center of gravity.	It raises the center of gravity.	
4	3176	A	The tops of vents from gasoline tanks should terminate _____.	in open air	inside cabins	in machinery space	underwater	
4	3177	C	The SS AMERICAN MARINER will sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the drafts.	FWD 25'-07", AFT 27'-01"	FWD 25'-02", AFT 27'-06"	FWD 24'-10", AFT 27'-10"	FWD 24'-08", AFT 28'-00"	ST-0112

4	3178	D	Assuming that the recommended hatch loading sequence is followed, how many long tons of iron ore may be loaded through hatch No. 23 while using a single belt loader to arrive at a desired mean keel draft of 28'-00"? (Use the Guidance Manual for Loading M.V. GRAND HAVEN.)	2930 tons	3110 tons	3170 tons	3240 tons	
4	3179	A	What is NOT a requirement for storage batteries on tank barges?	They may be located in cargo handling rooms	They must be located in well ventilated spaces	Each battery box must have a watertight lining	They must be secured against movement	
4	3181	C	Repairing damage to the hull of a MODU at or above the waterline reduces the threat of _____.	free surface effects	capsizing the MODU	continued progressive flooding	wind overturning moments	
4	3182	B	What is the minimum number of portable fire extinguishers required on board a 45-foot motorboat having a fixed fire system on board? (Uninspected Vessel Regulations)	1 B-I	2 B-I	3 B-I	4 B-I	
4	3183	D	The order of importance in addressing damage control on a MODU is _____.	control flooding, control fire, repair structural damage	restore vital services, control fire, control flooding	control fire, restore vital services, control flooding	control fire, control flooding, repair structural damage	
4	3184	D	The center of buoyancy and the metacenter are in the line of action of the buoyant force _____.	only when there is positive stability	only when there is negative stability	only when there is neutral stability	at all times	
4	3185	B	Control of flooding on a MODU should be addressed _____.	first	following control of fire	following restoration of vital services	only if a threat exists	
4	3186	A	Using a sea anchor will _____.	reduce the drift rate of the liferaft	keep the liferaft from turning over	aid in recovering the liferaft	increase your visibility	
4	3187	A	Repair of vital machinery and services on a MODU should be accomplished _____.	after control of fire, flooding, and structural repairs	immediately	after control of fire, but before control of flooding	after stability is restored	
4	3189	A	If a gasoline engine turns over freely but will not start, the cause is generally _____.	a defective ignition system	low lube oil level	weak valve springs	too heavy a load	
4	3191	A	To assess the potential for progressive flooding aboard a damaged MODU, you must know the _____.	integrity of the watertight boundaries	capacity of the water sprinkler systems	operation of the machinery space bilge level alarms	All of the above	
4	3192	A	Which statement is FALSE concerning the use of approved buoyant work vests on board uninspected towboats? (Uninspected Vessel Regulations)	They may be substituted for up to 50% of the required life preservers.	They shall be of an approved type.	They shall be stowed separately from required lifesaving equipment.	They may be worn by crew members when working near or over the water.	
4	3193	D	Progressive flooding on a MODU may be indicated by _____.	ballast control alarms	excessive draft	excessive list or trim	a continual worsening of list or trim	
4	3194	A	Generally, what is used to inflate liferafts?	non-toxic gas	Oxygen	Hydrogen	Helium	
4	3195	D	The SS AMERICAN MARINER will sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the drafts.	FWD 18'-05", AFT 21'-05"	FWD 18'-00", AFT 21'-10"	FWD 18'-06", AFT 22'-01"	FWD 17'-10", AFT 22'-00"	ST-0113
4	3196	A	What shall be conducted during a fire and boat drill?	All watertight doors in the vicinity of the drill shall be operated.	All lifeboat equipment shall be examined.	Fire pumps shall be started and all exterior outlets opened.	All of the above	
4	3197	C	The best information on the nature and extent of damage on a MODU is obtained from _____.	alarms and monitoring devices	the toolpusher	personnel at the scene of the damage	person in charge of the affected spaces	

4	3198	D	Starting motors, generators, and other spark producing devices should be mounted as high above the bilges as possible to _____.	keep them dry when the bilges are full of water	keep them cool when the vessel is underway	make them more accessible for repairs	prevent accidental ignition of any gasoline vapors that may have accumulated in the bilges	
4	3199	D	You are towing a 1,000 GT gasoline tank barge which is not gas free. By regulation, cargo tank hatches, ullage holes, and Butterworth plates on the barge may _____.	not be open without flame screens under any circumstances	be open without flame screens in good weather from 16 May to 15 September	be open without flame screens when the barge is empty	be open without flame screens under the supervision of the senior crew member on duty	
4	3200	A	Which circumstance concerning an inspected passenger vessel would require knowledge and approval of the Officer in Charge, Marine Inspection? (small passenger vessel regulations)	The removal of a watertight bulkhead	A minor overhaul of the propulsion machinery	Renewal of a FCC Certificate for a radiotelephone	All of the above	
4	3201	D	The stamped full weight of a 100-lb. CO2 bottle is 314 lbs. What is the minimum weight of the bottle before it has to be recharged?	282 lbs.	294 lbs.	300 lbs.	304 lbs.	
4	3202	B	Which of these approved lifesaving devices must a small passenger vessel carrying passengers for hire carry for each person on board? (small passenger vessel regulations)	Buoyant cushion	Life jacket	Ring buoy	Buoyant vest	
4	3203	A	The inside light in an inflatable liferaft is turned on _____.	automatically as the liferaft inflates	with a switch near the boarding handle	at night because the light has a photosensitive switch	by screwing the bulb in after the raft inflates	
4	3204	B	In accordance with SOLAS, the batteries that power interior lighting in inflatable liferafts can be made to last longer by _____.	unscrewing the bulb during the daylight	switching the light on only when necessary	taking no action as there is no way on saving power	taking no action as they shut off automatically in daylight	
4	3205	B	On a sailing vessel, it is best to approach a person in the water by placing them on your _____.	leeward side	windward side	bow	transom	
4	3206	D	Your tow contains a barge carrying carbon tetrachloride. What is NOT required?	Cargo warning signs on barge	Cargo information card on barge	Cargo information card in pilothouse	Certificated tankerman on towboat	
4	3207	D	The lights on the outside of the canopy of an inflatable liferaft operate _____.	by turning the globe clockwise	by a switch at the light	by a light sensor	automatically when the raft is inflated	
4	3209	A	In the illustration shown, the floating sheath knife is indicated as item number _____.	2	8	13	16	D014SA
4	3210	C	On a small passenger vessel, 58 feet in length, carrying 52 passengers the fire pump shall have a minimum pumping capacity of _____.	10 gallons per minute	25 gallons per minute	50 gallons per minute	100 gallons per minute	
4	3211	A	What is placed on the underside of an inflatable liferaft to help prevent it from being skidded by the wind or overturned?	Ballast bags	A keel	Strikes	Sea anchor	
4	3212	B	Before starting a gasoline engine on a motorboat, you should make sure for safety that _____.	the gasoline tank is full	the bilges, cabins, etc. are thoroughly ventilated	you have fresh water on board	Each of the above is followed	
4	3213	D	A safety feature provided on all inflatable liferafts is _____.	overhead safety straps	built in seats	internal releasing hooks	water stabilizing pockets	

4	3214	D	What does the "B" on a "B-II" fire extinguisher refer to? (Uninspected Vessel Regulations)	Size of the applicator	Size of the nozzle	Size of the extinguisher	Class of fire that the extinguisher should be used on	
4	3215	B	The jackknife stored on an inflatable liferaft will always be located _____.	in one of the equipment bags	in a special pocket near the forward entrance	on a cord hanging from the canopy	in a pocket on the first aid kit	
4	3216	C	Gasoline fuel tank vents should terminate _____.	in the engine compartment	in the fuel tank space	above or outside the hull	at the most convenient location	
4	3217	D	Which of the devices listed will prevent an inflated liferaft from being pulled under by a vessel which sinks in water over 100 feet deep?	The hydrostatic release	A shear pin	A rottmer release	A weak link in the painter	
4	3218	A	Assuming that the recommended hatch loading sequence is followed, how many long tons of iron ore may be loaded through hatch No. 3 while using a single belt loader to arrive at a desired mean keel draft of 27'-07"? (Use the Guidance Manual for Loading M.V. GRAND HAVEN.)	2500 tons	2550 tons	2600 tons	2650 tons	
4	3219	C	The final inspection responsibility for seeing that a tank barge is provided with the required equipment and fittings in good and serviceable condition prior to loading cargo rests with the _____.	terminal operator	owner of the barge	tankerman or person in charge of loading	charterer through the Master of the towing vessel	
4	3220	B	All vessels not required to have a power driven fire pump shall carry _____. (small passenger vessel regulations)	a suitable, detachable pump usable for fire fighting purposes	at least three 2-1/2 gallon fire buckets	an emergency hand fire and bilge pump	not less than three hand fire pumps	
4	3221	C	A MODU with a displacement of 15,000 kips has a KG of 20 feet. A load of 300 kips is shifted from a VCG of 100 feet to a VCG of 10 feet. How far does the KG move?	0.2 foot downward	0.2 foot upward	1.8 feet downward	1.8 feet upward	
4	3223	B	After 1 September 1992, in the North Pacific area, a documented 75-foot fishing vessel operating in cold waters 25 miles off the coast must have at least a(n) _____.	buoyant cushion for each person on board	inflatable liferaft with a SOLAS pack	inflatable buoyant apparatus with EPIRB attached	approved rescue boat	
4	3225	A	The SS AMERICAN MARINER arrived in port with drafts of: FWD 18'-05", AFT 20'-11". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.	FWD 18'-07", AFT 20'-11"	FWD 18'-09", AFT 20'-09"	FWD 18'-11", AFT 20'-07"	FWD 19'-01", AFT 20'-05"	ST-0114
4	3226	C	The sign used to caution persons approaching the gangway of a tank barge during cargo transfer reads _____.	"Warning, Keep Off, Stay Clear"	"Danger, Do Not Board"	"Warning, No Smoking, No Open Lights, No Visitors"	"Dangerous Cargo Being Transferred"	
4	3227	C	A semisubmersible, while floating level, displaces 18,000 long tons. Bulk, weighing 400 long tons, is placed in P-tanks located 80 feet to starboard of the centerline. What is the new TCG?	0.02 foot starboard of centerline	0.32 foot starboard of centerline	1.74 feet starboard of centerline	1.78 feet starboard of centerline	
4	3228	D	A fuel line breaks, sprays fuel on the hot exhaust manifold, and catches fire. Your FIRST action should be to _____.	batten down the engine room	start the fire pump	apply carbon dioxide to the fire	shut off the fuel supply	
4	3229	A	The engine head, block, and exhaust manifold shall be _____. (small passenger vessel regulations)	water jacketed	air cooled	preheated prior to starting	drained weekly	

4	3230	D	Which statement is TRUE concerning a power driven fire pump on board a small passenger vessel?	The hand fire pump shall be located adjacent to the main engine spaces.	It shall be of at least 2 gallons per minute capacity.	It shall be painted red.	It may also serve as a bilge pump.	
4	3231	D	A lifeline must be connected to the liferaft _____.	at the bow	at the stern	in the middle	all around	
4	3232	D	Which statement is TRUE concerning work vests aboard a vessel? (Uninspected Vessel Regulations)	They may be worn during drills.	They may be substituted for up to 10% of the required lifesaving gear aboard.	They need not be of an approved type.	They must be stowed separately from approved life preservers.	
4	3234	C	The abandon ship signal is _____.	a continuous ringing of general alarm bells for at least 10 seconds	a continuous ringing of the general alarm, and sounding of the ship's whistle	more than 6 short blasts and 1 long blast of the ship's whistle and the same signal on the general alarm bells	a continuous sounding of the ship's whistle	
4	3235	C	A MODU displacing 28,000 long tons has a KG of 60 feet. A weight of 500 long tons is added at a VCG of 150 feet. The change in KG is _____.	1.09 feet	1.60 feet	1.58 feet	2.73 feet	
4	3236	C	While at your lifeboat station, you hear a signal consisting of two short blasts of the whistle. This signal indicates _____.	"abandon ship"	"commence lowering boats"	"stop lowering boats"	"secure from boat stations"	
4	3237	C	A MODU displacing 28,000 long tons has a KG of 60 feet. A weight of 500 long tons is discharged from a VCG 150 feet. The change in KG is _____.	1.09 feet	1.60 feet	1.64 feet	2.73 feet	
4	3238	D	During fueling, all doors, hatches, and ports _____.	to windward should be opened and the ones to leeward should be closed	to leeward should be opened and the ones to windward should be closed	should be opened	should be closed	
4	3239	B	Your tow includes a loaded chlorine barge. After inspecting the tow, the mate reports that he hears a hissing sound coming from the safety valves. Where will you find information on emergency procedures concerning the uncontrolled release of cargo?	Barge's Certificate of Inspection	Cargo Information Card on your towboat	Cargo Manifest or loading paper	Dangerous Cargo Regulations	
4	3240	B	When a vessel is required to have a power-driven fire pump, the pump may also be used for _____. (small passenger vessel regulations)	the drinking water supply system	the bilge pump	engine cooling water	None of the above	
4	3241	B	The DEEP DRILLER, at a draft of 45 feet and total vertical moments of 981,567 ft-long tons, floods 2068.7 long tons of sea water through the overboard discharge into tanks 3 and 8 on both sides. The VCG of the added ballast is 7.22 feet. The shift in the height of the center of gravity is _____.	0.93 foot	6.16 feet	6.95 feet	7.88 feet	
4	3242	B	A vessel carrying passengers for hire shall have on board an approved life jacket _____. (small passenger vessel regulations)	for every passenger on board	for every person on board, plus 10% childrens' life jackets	for every person on board, plus 10% additional on upper deck in box	or buoyant cushion for every person on board plus 10% for children	
4	3243	D	If there's a fire aboard your vessel, you should FIRST _____.	notify the Coast Guard	cut off air supply to the fire	have passengers put on life preservers	sound the alarm	

4	3244	B	A person may operate an air compressor in which of the following areas on board a tank barge?	Pumproom	Generator room	A space adjacent to a cargo tank	A space two meters from a cargo valve	
4	3245	A	The SS AMERICAN MARINER will sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the drafts.	FWD 25'-02", AFT 29'-10"	FWD 25'-06", AFT 29'-06"	FWD 27'-10", AFT 26'-02"	FWD 29'-11", AFT 25'-04"	ST-0115
4	3246	D	A loaded hopper barge with independent tanks has a placard, with alternating red and white quadrants, on each side and end. Which statement concerning this barge is TRUE?	The cargo will spontaneously ignite if released to the atmosphere.	You must operate this barge as a lead barge.	The barge should be spotted as far away from the towboat as possible.	The barge must be in a protected position within the tow.	
4	3247	C	A semisubmersible with displacement of 19,700 long tons and KG of 50.96 feet loads 300 long tons of barite into P-tanks located 120 feet above the keel. What is the change in KG?	0.79 foot upward	1.00 foot upward	1.04 feet upward	1.83 feet upward	
4	3249	A	The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the LCG-FP of the liquid load.	231.0 ft	234.3 ft	244.6 ft	251.5 ft	ST-0116
4	3250	D	Which statement is TRUE concerning fire hose on a small passenger vessel?	Fire hose shall be at least 3/4" outside diameter.	One length of fire hose shall be provided for every two fire hydrants.	All fittings on hoses shall be of steel or other ferrous metal.	A length of hose with nozzle attached shall be attached to each fire hydrant at all times.	
4	3252	A	Before any machinery is put in operation, you should _____.	ventilate all compartments, see that the machinery is clean and there are no obstructions	just turn the key and start up	take for granted that there are no fuel leaks	assume there are no volatile fumes in the engine space	
4	3253	C	A semisubmersible displacing 17,600 long tons has an LCG 3.2 feet forward of amidships. Bulk, weighing 400 long tons, is loaded into P-tanks located 50.8 feet aft of amidships. What is the new LCG?	0.80 foot forward of amidships	1.20 feet forward of amidships	2.00 feet forward of amidships	4.40 feet forward of amidships	
4	3254	B	All uninspected motor vessels constructed after 25 April 1940, which use fuel with a flash point of 110°F (43°C) or less, shall have at least what number of ventilator ducts for the removal of explosive or flammable gases from every engine and fuel tank compartment? (Uninspected Vessel Regulations)	1	2	3	4	
4	3255	A	A MODU displacing 28,000 long tons has a KG of 60 feet. A weight of 500 long tons is discharged from a VCG of 150 feet. To maintain draft, ballast is added at a VCG of 10 feet. What is the change in KG?	2.5 feet downward	2.0 feet downward	1.5 feet downward	1.0 foot downward	
4	3256	C	Gasoline vapor tends to collect _____.	above the floor plates of the bilges	above the carburetor level	at the lowest point of the bilge areas	at no particular level	
4	3257	A	A semisubmersible with a displacement of 20,000 tons and a KG of 60.0 feet loads 300 tons at a VCG of 120 feet. To maintain draft, ballast is discharged from a height of 20 feet. What is the change in KG?	1.5 feet upward	1.5 feet downward	0.8 foot upward	0.8 foot downward	

4	3258	C	Assuming that the recommended hatch loading sequence is followed, how many long tons of iron ore may be loaded through hatch No. 20 while using a single belt loader to arrive at a desired mean keel draft of 24'-10"? (Use the Guidance Manual for Loading M.V. GRAND HAVEN.)	1540 tons	1590 tons	1645 tons	1670 tons	
4	3259	D	Why is a warning sign displayed at the gangway or access point of a barge during cargo transfer?	To keep visitors away from the barge	To prohibit smoking	To prohibit open lights	All of the above	
4	3260	A	A length of fire hose shall be _____. (small passenger vessel regulations)	attached to each fire hydrant at all times	equipped with a rotary sprinkler head	marked with the lot number and wholesale price	not more than 10 feet in length	
4	3261	D	A semisubmersible with a displacement of 20,000 tons and a KG of 60.0 feet loads 300 tons at a VCG of 120 feet. What is the change in KG?	1.32 feet downward	1.32 feet upward	0.89 foot downward	0.89 foot upward	
4	3263	C	What is the operating principal of a flash type evaporator?	Sea water is heated to boiling temperature under a vacuum.	Sea water is passed over heated plates in a thin film.	Heated sea water is injected into a vacuum chamber.	Sea water is forced through a heated eductor.	
4	3264	D	If you reef a marconi mainsail, the sail area _____.	stays the same	moves aft	becomes more	becomes less	
4	3265	C	A semisubmersible with a displacement of 20,000 tons and KG of 52 feet discharges 300 long tons of barite from P-tanks located 120 feet above the keel. Ballast added to maintain draft has a VCG of 20 feet. What is the change in KG?	0.49 foot increase	0.50 foot decrease	1.50 feet decrease	1.80 feet decrease	
4	3266	A	The SS AMERICAN MARINER will sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the drafts.	FWD 17'-11", AFT 22'-07"	FWD 17'-09", AFT 23'-01"	FWD 17'-05", AFT 23'-04"	FWD 17'-02", AFT 23'-04"	ST-0117
4	3267	C	A MODU displacing 30,500 long tons has a KG of 60 feet. A weight of 500 long tons is discharged from a VCG of 150 feet. What is the change in KG?	2.5 feet downward	2.0 feet downward	1.5 feet downward	1.0 foot downward	
4	3268	B	Diesel engines are considered safer than gasoline engines because _____.	they are more heavily built	the fuel used is less volatile	they can be easily reversed	they operate at a lower speed	
4	3269	A	What is the purpose of the liferaft's hydrostatic release?	To release raft automatically as the ship sinks	To inflate the raft automatically	To test rafts hydrostatically	None of the above	
4	3270	B	Which portable fire extinguisher is required just outside the exit of the propulsion machinery space of a 75-ton passenger vessel?	2-1/2 gallon foam extinguisher	15 lb. CO2 extinguisher	2 lb. dry chemical extinguisher	None of the above	
4	3271	C	A MODU displacing 29,500 long tons has a KG of 60 feet. A weight of 500 long tons is added at a VCG of 150 feet. What is the change in KG?	2.5 feet upward	2.0 feet upward	1.5 feet upward	1.0 foot upward	
4	3272	C	Where should life jackets be stowed? (Small Passenger Vessel Regulations)	In the forepeak	In the wheelhouse	Throughout the accommodation spaces	In locked watertight and fireproof containers on or above the main deck	
4	3273	C	A semisubmersible with a displacement of 20,000 long tons and a KG of 52 feet discharges 300 long tons of barite from P-tanks located 120 feet above the keel. What is the change in KG?	0.79 foot downward	1.00 foot downward	1.04 feet downward	1.83 feet downward	
4	3274	B	Vessels required to be equipped with an approved backfire flame arrester are _____.	those with diesel engines	all those with gasoline engines	those with large engines only	None of the above	

4	3275	B	Your present displacement is 15,000 short tons. The KG at this displacement is 60 feet. 100 short tons of casing are added at a VCG of 75 feet for an ocean tow. What is the new KG?	59.09 feet	60.09 feet	61.09 feet	62.09 feet	
4	3276	B	While at your lifeboat station, you hear a signal consisting of one short blast of the whistle. This signal indicates _____.	abandon ship	commence lowering boats	stop lowering boats	secure from boat stations	
4	3277	B	When starting a long ocean tow at a displacement of 18,000 short tons and a KG of 70 feet, you dump 100 short tons of water which had a VCG of 88 feet. What is the new KG?	59.9 feet	69.9 feet	79.9 feet	89.9 feet	
4	3278	D	Gasoline tanks should be filled _____.	to the top to expel all vapors from the tanks	to the top so the operator is certain how much fuel he has aboard	with only sufficient fuel for the planned trip so excess gasoline is not carried	to near the top with some space allowed for gasoline expansion	
4	3279	C	You have orders to drop off a barge loaded with propylene oxide at a fleet. In doing so, you must ensure that _____.	all wing voids and rakes are pumped dry before tying off the barge	the barge is moored next to the bank where it will be protected from a possible collision	the barge is under the care of a watchman	a rake end is facing upstream to minimize the effect of current on the mooring lines	
4	3280	D	Which type of fire extinguishers are permitted on inspected vessels? (small passenger vessel regulations)	Foam	Carbon dioxide	Dry chemical	All of the above	
4	3281	D	Preparing to move on a location, you find that you must remove 450 tons of drill water, with a VCG of 8 feet, to enable you to meet the draft limitations. You started with a displacement of 17,000 tons and a KG of 69 feet. What is the KG after pumping out the drill water?	49.13 feet	59.13 feet	69.13 feet	70.66 feet	
4	3282	C	What form of venting of cargo tanks is allowed for a tank barge certificated to carry grade B petroleum products?	Gooseneck vents only	Gooseneck vents with flame screens	Individual pressure-vacuum relief valves with flame screens	Straight vents with flame screens	
4	3283	D	The midships house of your break bulk ship is constructed with an interior stair tower from the main deck to the bridge. Under what circumstances may the doors from each deck to the stair tower be kept open when underway?	They can be kept open if the Muster List ("Station Bill") has personnel designated to close them in case of fire.	They may be kept open if the ventilation or air conditioning system is shut down.	They are to be kept closed at all times.	They may be kept open if they can be automatically closed from the bridge.	
4	3284	B	Unless the COI is endorsed for adults only, there shall be provided a number of approved life jackets suitable for children equal to at least _____. (small passenger vessel regulations)	20% of the passengers carried	10% of the total number of persons carried	10% of the passengers carried	20% of the total number of persons carried	
4	3285	D	The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the LCG-FP of the liquid load.	271.2 ft	288.8 ft	292.3 ft	307.2 ft	ST-0118
4	3286	C	The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the LCG-FP of the liquid load.	270.6 ft	261.2 ft	250.5 ft	246.8 ft	ST-0119

4	3287	A	A vessel displacing 18,000 tons has a KG of 50 feet. A crane is used to lift cargo weighing 20 long tons from a supply vessel. When lifting, the head of the crane boom is 150 feet above the keel. What is the change in KG?	0.11 foot	0.17 foot	0.25 foot	0.32 foot	
4	3289	D	A warship indicates that it wishes to communicate with a merchant ship by hoisting _____.	the merchant ship's identity signal and keeping it hoisted during the entire communication	the national ensign of the merchant vessel at the starboard yard	the flags MV close up until acknowledged and then lowering them to the dip	the code pennant, and keeping it flying during the entire communication	
4	3290	A	On vessels that are required to have fixed carbon dioxide fire extinguishing systems, the controls to operate the system shall be installed in an accessible location _____. (small passenger vessel regulations)	outside the space protected	inside the space protected	at the carbon dioxide cylinders	in a padlocked waterproof metal box	
4	3291	A	A semisubmersible with a displacement of 18,117.7 long tons and a KG of 52.0 feet discharges 200 long tons from a KG of 130 feet. To remain at draft, ballast is added at a height of 10 feet. What is the change in KG?	1.32 feet downward	1.32 feet upward	0.87 foot downward	0.87 foot upward	
4	3292	C	Upon completion of fueling a gasoline driven vessel it is necessary to _____.	keep ports, doors, windows, and hatches closed	start engines immediately	ventilate before starting engine	None of the above	
4	3293	D	Your sailing vessel is docked during a storm and is in continuous motion. If a mooring line parts due to vessel motion, it will most likely do so _____.	where it is made fast on the vessel	midway between the vessel and the dock	at the eye	at the chock	
4	3294	A	What is the purpose of the liferaft hydrostatic release?	To release the liferaft from the cradle automatically as the ship sinks	To inflate the raft automatically	To test rafts hydrostatically	None of the above	
4	3295	B	A semisubmersible floating in sea water displaces 20,000 long tons. She has vertical moments of 1,000,000 foot-long tons. What is the new KG if 300 long tons are added at a VCG of 50 feet?	49.2 feet	50.0 feet	50.8 feet	57.5 feet	
4	3296	A	Which statement is TRUE concerning fuel vapors on a vessel?	Fuel vapors gather in the lowest portions of the vessel.	Fuel vapors can only be ignited by an open flame.	Vent outlets should be located above the level of the carburetor air intake.	None of the above	
4	3297	C	A floating MODU displacing 20,000 long tons with a VCG of 50 feet loads 100 long tons at 100 feet above the baseline and 200 long tons at 130 feet above the baseline. What is the new KG?	49.0 feet	50.0 feet	51.0 feet	51.8 feet	
4	3298	B	Assuming that the recommended hatch loading sequence is followed, how many long tons of iron ore may be loaded through hatches 2, 6, & 10, while using a single belt loader, to arrive at a desired mean keel draft of 27'-07"? (use the Guidance Manual for Loading M.V. GRAND HAVEN)	510 tons per hatch	530 tons per hatch	590 tons per hatch	610 tons per hatch	
4	3299	A	Which signal must you display at night on a docked tank barge to show that it is loading or discharging flammable liquid cargo?	Red light	Flashing amber light	ICC yellow light	Two orange lights	

4	3300	A	How many portable fire extinguishers are required to be located inside the machinery space of a small passenger vessel?	None are required	One B-I, C-I	One B-II, C-II	One B-II	
4	3301	B	A semisubmersible, while floating level, displaces 25,000 long tons. LCG is 2 feet forward of amidships. Bulk, weighing 300 long tons, is placed in P-tanks located 50 feet aft of amidships. What is the new LCG?	1.43 feet forward of amidships	1.38 feet forward of amidships	0.62 foot forward of amidships	0.57 foot forward of amidships	
4	3302	C	What is the minimum number of Type B-II hand portable fire extinguishers required to be aboard a 3,000 BHP, 99 GT harbor tug? (Uninspected Vessel Regulations)	2	3	5	6	
4	3303	C	Your fireman's outfit includes a(n) _____.	chemical protection face shield	approved work vest	self-contained breathing apparatus	marlinspike	
4	3304	D	If your passenger vessel has been issued a stability letter, it must be _____.	filed in the ship's office	posted in a passenger area	posted adjacent to the Certificate of Inspection	posted in the pilothouse	
4	3305	A	The height of the transverse metacenter for a MODU is 62.44 feet. The height of the center of gravity is 56.10 feet, and the transverse free surface correction is 1.21 feet. What is the value of the metacentric height corrected for transverse free surface effects?	5.13 feet	6.34 feet	8.76 feet	12.10 feet	
4	3306	B	The SS AMERICAN MARINER will sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the drafts.	FWD 26'-09", AFT 28'-05"	FWD 26'-05", AFT 28'-07"	FWD 26'-04", AFT 28'-10"	FWD 26'-00", AFT 29'-00"	ST-0120
4	3307	C	You are signaling by flag hoist using the International Code of Signals. You wish to send the signals CL and IW and have them read in that order. What would ensure this?	Hoist CL from the starboard yard and IW from the port yard.	Hoist CLIW together.	Hoist CL tackline IW	Any of the above will ensure the correct reading.	
4	3308	C	The quickest method to stop a small diesel engine whose throttle or governor has become stuck open is to _____.	drain the fuel tank	turn off the ignition switch	close the fuel supply valve	apply the shaft brake	
4	3309	C	The exhaust pipe must be gas tight throughout its entire length otherwise _____.	bilge water may enter the exhaust pipe	entry of air may cause vapor lock	carbon monoxide may enter the interior of the vessel	the joint gaskets may be blown	
4	3310	D	Fixed carbon dioxide fire extinguishing systems shall be installed to protect enclosed machinery and fuel tank spaces of all vessels using gasoline or other fuel having a flash point of _____. (small passenger vessel regulations)	0°F or lower	75°F or lower	90°F or lower	110°F or lower	
4	3311	C	The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.	Available GM 3.51 ft	Available GM 3.60 ft	Available GM 3.98 ft	Available GM 4.28 ft	ST-0121
4	3312	A	By regulation, life preservers aboard an uninspected towing vessel must be _____. (Uninspected Vessel Regulations)	readily accessible	securely stowed	stored in sealed containers	stowed with the emergency provisions	
4	3313	C	If the hydrostatic release mechanism for an inflatable liferaft is not periodically serviced and becomes inoperable, it will fail to _____.	set the water lights on immersion	release the dye marker from the liferaft	free the liferaft from the vessel	break the seal on the carbon dioxide cylinder	
4	3314	B	Which device is required to be installed under the carburetor of a gasoline engine? (small passenger vessel regulations)	Box of sawdust	Drip collector	Vent	Flame arrestor ONLY	

4	3315	B	The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the LCG-FP of the liquid load.	271.2 ft	291.0 ft	288.8	305.3 ft	ST-0122
4	3316	A	When supplemented by a comparable signal on the general alarm, what is the signal for boat stations or boat drill?	More than six short blasts followed by one long blast of the whistle	A continuous blast of the whistle for a period of not less than 10 seconds	One long blast followed by three short blasts of the whistle	Three short blasts of the whistle	
4	3317	D	You are in a lifeboat broadcasting a distress message. What information would be essential to your rescuers?	The nature of the distress	The time of day	Your radio call sign	Your position by latitude and longitude	
4	3318	D	You discover a leak in the fuel line to the engine. You should FIRST _____.	activate the CO2 system	make a temporary repair with canvas or tape	start the bilge pump	close the fuel valve at the tank	
4	3319	D	If you have a liquefied flammable gas barge in tow, which is NOT required of you with respect to the barge and its cargo?	Make periodic inspections of bilges.	Keep the barge under constant surveillance.	Have a properly certificated tankerman or at least one licensed officer on board the towing vessel.	Verify ullage readings.	
4	3320	A	If your vessel is required to have a fire ax on board, where should it be located? (small passenger vessel regulations)	In or adjacent to the primary operating station	In below-decks passenger accommodations	Just outside the engine room access	In the galley near the stove	
4	3321	D	A semisubmersible displacing 18,000 long tons has an LCG 2 feet forward of amidships. Bulk, weighing 400 long tons, is discharged from P-tanks located 50.8 feet aft of amidships. What is the new LCG?	0.8 foot forward of amidships	1.20 feet forward of amidships	3.11 feet forward of amidships	3.20 feet forward of amidships	
4	3322	B	If your vessel is certificated to carry 10 persons, including both adults and children, how many life jackets are you required to carry on board? (small passenger vessel regulations)	11 adult	10 adult and 1 child	10 adult and 5 child	10 adult	
4	3323	A	A semisubmersible, with a TCG of 0.5 foot to port, displaces 20,000 long tons. Bulk, weighing 400 long tons, is loaded in P-tanks located 50 feet starboard to the centerline. What is the new TCG?	0.49 foot starboard of centerline	0.51 foot starboard of centerline	0.99 foot starboard of centerline	1.49 feet starboard of centerline	
4	3324	C	How should cargo tank hatches be protected when the ullage opening is open and the tank NOT gas free?	With gooseneck vents	With warning signs	With flame screens	With pressure-vacuum relief valves	
4	3325	D	A semisubmersible, with a TCG of 0.5 feet to port, displaces 20,000 long tons. Bulk, weighing 400 long tons, is discharged from P-tanks located 50 feet starboard of the centerline. What is the new TCG?	1.03 feet starboard of centerline	0.53 foot starboard of centerline	0.53 foot port of centerline	1.53 feet port of centerline	
4	3326	A	The nozzle of a gasoline hose or can should be kept _____.	in contact with the fill opening to guard against static spark	from making contact with the fill opening to guard against static spark	in contact with the fill opening to allow proper venting	None of the above	
4	3327	C	A semisubmersible, while floating level, displaces 20,000 long tons. LCB is 3.0 feet forward of amidships. Bulk, weighing 300 long tons, is placed in P-tanks located 40 feet aft of amidships. What is the new LCG?	3.64 feet forward of amidships	2.45 feet forward of amidships	2.36 feet forward of amidships	0.55 foot forward of amidships	

4	3328	A	A barge displaying a 2' X 3' white sign with the word "WARNING" followed by "DANGEROUS CARGO" in black letters _____.	would require that a cargo information card be carried in the pilothouse of the towboat	may not be spotted next to the towboat while under tow	may not be in the same tow as a barge carrying gasoline	must be located as a lead barge in a tow	
4	3329	C	A fire is discovered in the forepeak of a vessel at sea. The wind is from ahead at 35 knots. You should _____.	remain on course and hold speed	remain on course but slack the speed	change course and put the stern to the wind	change course to put the wind on either beam and increase speed	
4	3330	D	A carbon dioxide fire extinguisher is required to be recharged if the weight loss exceeds what percentage of the weight of the charge? (small passenger vessel regulations)	One percent	Five percent	Seven percent	Ten percent	
4	3331	D	The stability which remains after a compartment is flooded is called _____.	intact stability	initial stability	immersion stability	damage stability	
4	3332	C	When fueling has been completed _____.	the fuel tank fill pipe should be left open to allow vapors to vent from the tank	the engine should be started immediately to prevent vapor lock in the fuel line	all hatches should be opened and all compartments should be ventilated	open the fuel line and drain a small amount of gasoline into the bilge to clear the line of sediment	
4	3333	B	The SS AMERICAN MARINER arrived in port with drafts of: FWD 18'-06", AFT 21'-10". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.	FWD 18'-06", AFT 21'-06"	FWD 18'-08", AFT 21'-04"	FWD 18'-10", AFT 21'-02"	FWD 19'-00", AFT 21'-00"	ST-0123
4	3334	D	Inflatable liferafts are provided with _____.	a portable radio	an oil lantern	canned milk	a towing bridle	
4	3335	D	Inflatable liferafts are provided with a _____.	jackknife	towing connection	lifeline	All of the above	
4	3336	A	Which statement is TRUE concerning gasoline vapors on board a vessel?	They are heavier than air and will settle in the lowest part of the vessel.	They are lighter than air and will settle in the highest part of the vessel.	They should be vented into the engine to improve combustion.	They should be vented into the wheelhouse.	
4	3337	B	Aboard a MODU, multiplying a load's weight by the distance of the load's center of gravity from the centerline results in the load's _____.	LCG	transverse moment	righting moment	inclining moment	
4	3338	D	Assuming that the recommended hatch loading sequence is followed, how many long tons of iron ore may be loaded through hatches 5 & 7 while using a single belt loader, to arrive at a desired mean keel draft of 25'-02"? (Use the Guidance Manual for Loading M.V. GRAND HAVEN.)	1410 tons	1450 tons	1490 tons	1520 tons	
4	3339	B	What is acceptable flame screening?	A fitted single brass screen of 10 x 10 mesh	A fitted stainless steel screen of 30 x 30 mesh	A fitted single stainless steel screen of 15 x 15 mesh	Two fitted brass screens of 10 x 15 mesh spaced 1/2 inch apart	
4	3341	B	Inflatable liferafts are provided with a _____.	Very pistol	towing connection	portable radio	canned milk	
4	3342	A	How many type B-II hand portable fire extinguishers are required in the machinery space of an uninspected motor vessel with 1,400 BHP? (Uninspected Vessel Regulations)	2	3	4	5	

4	3343	D	The righting moment created by a MODU that displaces 15,000 tons with a righting arm (GZ) of 0.02 foot is _____.	3,000 foot-tons	750 foot-tons	600 foot-tons	300 foot-tons	
4	3346	A	An inflatable liferaft is thrown into the water from a sinking vessel. Which action occurs automatically after the painter trips the CO2 bottles to inflate the raft?	The sea anchor is deployed.	The floor inflates.	If upside down, the raft will right itself.	The painter detaches from the raft.	
4	3347	D	The DEEP DRILLER is level at a draft of 60 feet in calm water. What is the value of the righting moment?	18,118 foot-tons	9,059 foot-tons	4,529 foot-tons	0 foot-tons	
4	3348	C	Generally speaking, the fuel injected into a marine diesel engine combustion chamber is ignited by _____.	spark plugs	glow plugs	heat of compression	a magneto	
4	3349	B	Which device is required in the fuel supply line at the engine?	Flow meter	Shut-off valve	Pressure gauge	Filter	
4	3350	B	Which statement is TRUE concerning the number of portable fire extinguishers required at the operating station of a small passenger vessel? (small passenger vessel regulations)	None are required.	One B-I extinguisher is required.	One B-II extinguisher is required.	Two B-I extinguishers are required.	
4	3351	D	In good weather, you should deploy the sea anchor from the liferaft to _____.	keep the liferaft from capsizing	navigate against the current	keep personnel from getting seasick	stay in the general location	
4	3352	A	Which personal lifesaving device(s) is(are) approved for use on a towboat 150 feet in length? (Uninspected Vessel Regulations)	Life preserver	Buoyant vest or cushion	Special purpose safety device	All of the above	
4	3353	C	An inflatable liferaft can be launched by _____.	the float free method only	kicking the hydrostatic release	throwing the entire container overboard, then pulling on the operating cord to inflate the raft	removing the securing straps	
4	3354	C	Backfire flame arrestors are installed on _____.	fuel tanks	spark plugs	carburetors	distributors	
4	3355	C	The sea painter of an inflatable liferaft should be _____.	free running on deck	faked out next to the case	secured to a permanent object on deck via a weak link	stowed near the raft	
4	3356	B	The tank barge on which you are preparing to load petroleum is required to have on board one B-II fire extinguisher. What does NOT meet this requirement?	2-1/2 gallon foam	5 gallon water (stored pressure)	10 pound dry chemical	15 pound CO2	
4	3357	B	What must be carried out in order to launch and inflate an inflatable liferaft?	Pull on the hydrostatic release, pull on the sea painter.	Push on the hydrostatic release, pull on the sea painter.	Push on the hydrostatic release, push on the sea painter.	Pull on the hydrostatic release, push on the sea painter.	
4	3358	C	Spaces containing batteries require good ventilation because _____.	ventilation avoids CO2 buildup	ventilation supplies extra oxygen for the battery	ventilation avoids flammable gas accumulation	less water would be used	
4	3359	C	You are making tow. A loaded, open-hopper barge with independent tanks has placards, with alternating red and white quadrants, located at each side and end. You inspect the barge and find slight traces of water in the wing voids due to condensation. What should you do?	Refuse to accept the barge until all wing voids are dry.	Accept the barge and when weather conditions permit run with the wing voids open to ventilate the spaces.	Accept the barge and periodically check the wing voids.	Return the barge to the fleet and depart without the barge.	
4	3360	C	The premixed foam agent in fixed and semiportable fire extinguishing systems should be replaced _____. (small passenger vessel regulations)	every 12 months	every 18 months	every 36 months	only when used	

4	3361	C	The moment created by a force of 12,000 tons and a moment arm of 0.25 foot is _____.	48,000 ft-tons	6,000 ft-tons	3,000 ft-tons	0 ft-tons	
4	3363	B	What must be carried out in order to manually launch an inflatable liferaft not designed for float-free operation?	It will be easily launched by simply breaking the weak link.	Depress the hydrostatic release button.	It is easily launched by cutting the container securing straps.	It is only necessary to attach the weak link to the vessel.	
4	3364	D	The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.	444 tons	644 tons	1044 tons	1263 tons	ST-0124
4	3365	B	What is the correct procedure to follow when launching an inflatable liferaft by hand from an OSV?	Connect the float free link to the vessel.	Pull the painter from the container and make it fast to the cleat provided.	Open the canopy relief valves.	Remove the raft from the container to permit complete inflation.	
4	3366	C	An inflatable liferaft is floating in its container, attached to the ship by its painter, as the ship is sinking rapidly. Which action should be taken with respect to the liferaft container?	Cut the painter line so that it will not pull the liferaft container down.	Swim away from the container so that you will not be in danger as it goes down.	Take no action as the pull on the painter will cause the liferaft to inflate and open the container.	Manually open the container and inflate the liferaft with the hand pump.	
4	3367	A	After a liferaft is launched, the operating cord _____.	serves as a sea painter	detaches automatically	is used to rig the boarding ladder	is cut immediately as it is of no further use	
4	3368	C	Your tow includes a barge carrying chlorine. Which special requirements must be observed?	The wing voids shall not be opened when underway.	You must post a deckhand to keep a special watch on this barge.	A cargo information card for chlorine must be in the pilothouse.	All of the above	
4	3369	B	Several vessels are at an anchorage. You wish to communicate with the vessel bearing 046°T from you but do not know the vessels call letters. Which flag hoist should NOT be used to establish communications?	CS	RQ A046	VF	YQ3 A046	
4	3370	D	The carbon dioxide cylinders of all fixed fire extinguishing systems shall be retested and remarked whenever a cylinder remains in place on a vessel for _____. (small passenger vessel regulations)	5 years from the latest test date stamped on the cylinder	7 years from the latest test date stamped on the cylinder	10 years from the latest test date stamped on the cylinder	12 years from the latest test date stamped on the cylinder	
4	3371	C	The DEEP DRILLER at a draft of 60.0 feet discharges 68.94 long tons of ballast. What is the new draft?	66.0 feet	60.5 feet	59.5 feet	55.0 feet	
4	3372	D	Which statement is FALSE concerning precautions during small craft fueling operations?	All engines, motors, fans, etc. should be shut down when fueling.	All windows, doors, hatches, etc. should be closed.	A fire extinguisher should be kept nearby.	Fuel tanks should be topped off with no room for expansion.	
4	3373	C	The DEEP DRILLER at survival draft loads 2,068.1 long tons of ballast. What is the new draft?	30.0 feet	45.0 feet	60.0 feet	75.0 feet	
4	3374	B	What is NOT listed on the metallic name plate required to be attached to hand portable fire extinguishers? (Uninspected Vessel Regulations)	The rated capacity in gallons, quarts, or pounds	The hydrostatic test date of the cylinder	The name of the item	An identifying mark of the actual manufacturer	
4	3375	B	The DEEP DRILLER at a draft of 58.0 feet discharges 1,792.44 long tons of ballast. What is the new draft?	40 feet	45 feet	50 feet	55 feet	
4	3376	D	Outlets in gasoline fuel lines are _____,	permitted for drawing fuel samples	permitted for draining fuel from lines	permitted for bleeding air from lines	prohibited	

4	3377	C	The DEEP DRILLER at a draft of 58.0 feet loads 68.94 long tons of ballast. What is the new draft?	52.0 feet	57.5 feet	58.5 feet	64.0 feet	
4	3378	A	Assuming that the recommended hatch loading sequence is followed, how many long tons of iron ore may be loaded through hatch No. 1 while using a single belt loader to arrive at a desired mean keel draft of 29'-11"? (use the Guidance Manual for Loading M.V. GRAND HAVEN)	2230 tons	2270 tons	2310 tons	2350 tons	
4	3379	C	Where should a tank barge's Certificate of Inspection be kept?	In the owner's office	In the operator's office	On the barge	On the towboat	
4	3380	D	At each initial and subsequent inspection for certification, all carbon dioxide fire extinguishers aboard a vessel are _____. (small passenger vessel regulations)	checked for pressure loss	discharged and recharged	sent ashore to an approved service facility	weighed	
4	3381	A	The DEEP DRILLER, at a mean draft of 60 feet, has a two-foot trim by the head and a three foot list to starboard. What is the draft at the port aft draft mark?	57.5 feet	59.5 feet	60.5 feet	62.5 feet	
4	3382	D	A 6,000 BHP, 199 GT tug operating on the Great Lakes is required to carry how many B-II extinguishers? (Uninspected Vessel Regulations)	2	3	6	9	
4	3383	A	The DEEP DRILLER, at a mean draft of 45 feet, has a three-foot trim by the stern and a two-foot list to port. What is the draft at the starboard forward draft mark?	42.5 feet	44.5 feet	45.5 feet	47.5 feet	
4	3384	A	The SS AMERICAN MARINER is ready to load the cargo listed. There is already 4236 tons of cargo on board with a KG of 27.2 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.	KG 26.9 feet	KG 27.3 feet	KG 27.8 feet	KG 28.1 feet	ST-0125
4	3385	C	A jack-up, 180 feet in length, has the center of flotation at 110 feet aft of frame zero. The draft at the bow is 11.0 feet and the draft at the stern is 13.0 feet. What is the true mean draft?	11.78 feet	12.00 feet	12.22 feet	12.78 feet	
4	3386	D	While proceeding towards a distress site you hear the message PRU-DONCE over the radiotelephone. Which action should you take?	Advise the sender of your course, speed, position, and ETA at the distress site.	Resume base course and speed because the distress is terminated.	Shift your radio guard to the working frequency that will be indicated in the message.	Use that frequency only for restricted working communications.	
4	3387	A	A semisubmersible records the following drafts: Port Forward 64'-09"; Port Aft 68'-09"; Starboard Forward 59'-09"; Starboard Aft 63'-09". What is the mean draft?	64.25 feet	64.40 feet	64.75 feet	64.90 feet	
4	3388	B	A carburetor is required to have a safety device called a(n) _____.	pressure release	backfire flame arrestor	automatic shut off	flow valve	
4	3389	B	The draft of the SS AMERICAN MARINER cannot exceed 23'-06" in order to cross a bar. The present drafts are: FWD 22'-03", AFT 24'-00". Use the white pages of the Stability Data Reference Book to determine the minimum amount of sea water to ballast the forepeak to achieve this condition.	77 tons	96 tons	120 tons	124 tons	

4	3390	B	Non-required lifesaving equipment carried as additional equipment aboard small passenger vessels _____.	must be removed when carrying passengers	must be approved by the Commandant	may be substituted for not more than 5% of the required lifejackets	may be carried regardless of approval or condition, if in excess of required lifesaving equipment	
4	3391	B	A semisubmersible, 200 feet in length between draft marks with the LCF 10 feet aft of amidships, records the following drafts: Port Forward 64'-9"; Port Aft 68'-9"; Starboard Forward 59'-9"; and Starboard Aft 63'-9". What is the true mean draft?	64.25 feet	64.45 feet	64.75 feet	64.90 feet	
4	3392	A	The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.	595 tons	870 tons	1200 tons	1350 tons	ST-0126
4	3393	A	A semisubmersible with a TPI of 11.25 long tons per inch discharges 270 long tons from amidships. What is the new mean draft if the original drafts were: Port Forward 69.5 feet; Port Aft 68.5 feet; Starboard Forward 71.5 feet; Starboard Aft 70.5 feet?	68'-0"	69'-10"	70'-2"	72'-0"	
4	3394	B	The carburetor is placed on the engine to _____.	distribute the gasoline	mix the fuel and air	properly lubricate the engine	assist in priming the cylinders	
4	3395	C	A jack-up 180 feet in length with the LCF at 120 feet AFO has a draft of 8 feet at the bow and 11 feet at the stern. What is the mean draft?	8.0 feet	9.0 feet	9.5 feet	12.0 feet	
4	3396	D	On a vessel making a voyage more than 48 hours long, regulations require that _____.	a lifeboat drill be held within 12 hours prior to departure	fire pumps be tested by starting within 12 hours prior to departure	the emergency generator and lighting system be tested by starting and operating within 12 hours prior to departure	the entire steering gear be tested within 12 hours prior to departure	
4	3397	C	A jack-up 180 feet in length with the LCF at 120 feet AFO has a draft of 8 feet at the bow and 11 feet at the stern. What is the true mean draft (draft at the center of flotation)?	8.0 feet	9.0 feet	10.0 feet	11.0 feet	
4	3398	A	Before starting any diesel or gasoline engine, which of the following must be checked?	Oil level	Flow of cooling water	Exhaust discharge	All of the above	
4	3399	D	Which sizes of fire extinguishers are considered to be semi-portable? (Uninspected vessel regulations)	I, II, III, IV, and V	I, II, and III only	II, III, and IV only	III, IV, and V only	
4	3400	C	How should the number "9" be pronounced when spoken on the radiotelephone?	NEW-MER-AL-NINER	NUM-BER-NINE	NO-VAY-NINER	OK-TOH-NINE	
4	3401	A	While in port, what signal flag would inform the vessel's crew to report on board because the vessel was about to proceed to sea?	"P"	"H"	"U"	"A"	
4	3402	D	A vessel is signaling to you by flag hoist, and the answer pennant is hoisted close-up. You should _____.	hoist flag "C"	wait for further signals after a short delay	hoist flag "R"	expect no further flag hoists	

4	3403	D	The COASTAL DRILLER has a trim of 2.13 feet by the stern. The draft at the forward draft marks is observed to be 8.0 feet. The draft at the center of flotation is _____.	7.00 feet	8.58 feet	9.00 feet	9.42 feet	
4	3404	B	Convection spreads a fire by _____.	transmitting the heat of a fire through the ship's metal	heated gases flowing through ventilation systems	burning liquids flowing into another space	the transfer of heat across an unobstructed space	
4	3405	D	The COASTAL DRILLER has a trim of 2.13 feet by the stern. If the draft at the forward draft marks is 8.0 feet, the draft at the after draft marks is _____.	7.00 feet	9.00 feet	9.42 feet	10.13 feet	
4	3406	A	After having thrown the liferaft and stowage container into the water, the liferaft is inflated by _____.	pulling on the painter line	forcing open the container which operates the CO2	hitting the hydrostatic release	using the hand pump provided	
4	3408	B	In illustration D011SA, number 1 operates the _____.	McCluny hook	Fleming gear	releasing gear	sea painter	
4	3409	D	To launch a liferaft by hand, you should _____.	cut the casing bands, throw the raft over the side and it will inflate by itself	detach the operating cord, throw the liferaft over the side and it will then inflate	cut the casing bands, throw the raft over the side and pull the operating cord	throw the liferaft over the side and pull the operating cord	
4	3410	B	How should the letter "I" be pronounced when spoken on the radiotelephone?	IN DEE GO	IN DEE AH	I EE	I VAN HO	
4	3411	A	The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the KG of the liquid load.	7.9 feet	7.3 feet	6.4 feet	4.3 feet	ST-0127
4	3412	B	Your vessel's existing draft is FWD 24'-08", AFT 25'-04". Using the Guidance Manual for Loading M.V. GRAND HAVEN, determine the new draft if 180 long tons are loaded in No. 23 hatch.	FWD 24'-04 2/3", AFT 25'-10 3/4"	FWD 24'-06 1/2", AFT 25'-08 2/3"	FWD 24'-08 1/4", AFT 25'-00 2/3"	FWD 24'-10 1/4", AFT 25'-00 1/4"	
4	3413	C	With no environmental forces on the DEEP DRILLER, the average of the forward drafts is 59.0 feet, and the average of the aft drafts is 61.0 feet. KGL is 51.13 feet. What is the value of LCG?	-0.12 foot	0.12 foot	2.11 feet	2.35 feet	
4	3414	B	A rigid lifesaving device designed to support survivors in the water is a _____.	rigid liferaft	life float	inflatable liferaft	survival capsule	
4	3415	A	A vessel has a strong wind on the port beam. This has the same affect on stability as _____.	weight that is off-center to starboard	increasing the draft	reducing the freeboard	increasing the trim	
4	3416	C	The instructions for the launching of lifeboats and liferafts must be approved by the _____.	lease operator	Minerals Management Service	Coast Guard	person-in-charge of the unit	
4	3417	D	Which statement is TRUE concerning an inflatable liferaft?	The floor may be inflated for insulation from cold water.	Crew members may jump into the raft without damaging it.	The raft may be boarded before it is fully inflated.	All of the above	
4	3418	C	Your 600 GT vessel must carry a line-throwing appliance if it is certificated for _____.	river service	Great Lakes service	coastwise service	None of the above	
4	3419	C	Using the Guidance Manual for Loading M.V. Grand Haven, determine the amount of ballast required in tank No. 5 (P & S) to maintain drafts of 17'-00" forward and 22'-06" aft for a vessel loaded with grain which has a test weight of 35 lbs.	785 tons each	820 tons each	880 tons each	900 tons each	
4	3420	B	How should the number "1" be pronounced when spoken on the radiotelephone?	OO-NO	OO-NAH-WUN	NUM-EV-WUN	NEW-MAL-WON	

4	3423	C	What is the trim of a jack-up with forward draft of 11 feet and aft draft of 13.75 feet?	1.38 feet by the stern	1.45 feet by the stern	2.75 feet by the stern	2.90 feet by the stern	
4	3424	C	The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.	1920 tons	1280 tons	895 tons	720 tons	ST-0128
4	3425	B	What is the trim of a jack-up with a forward draft of 12 feet and an after draft of 13 feet?	0.5 foot by the stern	1.0 foot by the stern	2.0 feet by the stern	0.5 feet by the head	
4	3426	C	In illustration D011SA, number 1 operates the _____.	releasing gear	sea painter	Fleming gear	McCluny hook	D011SA
4	3427	B	A semisubmersible, 200 feet in length between draft marks with the LCF 10 feet aft of amidships, records the following drafts: Port Forward 64'-09"; Port Aft 68'-09"; Starboard Forward 59'-09"; and Starboard Aft 63'-09". What is the trim?	8 feet by the stern	4 feet by the stern	2 feet by the stern	4 feet by the head	
4	3428	D	Which river passenger vessel must have a copy of the vessel's plans permanently displayed?	A 200 GT vessel carrying more than 50 passengers	A 325 GT vessel on a voyage in excess of 8 hours	A 550 GT vessel with sleeping accommodations	A 1100 GT vessel making daylight excursion trips only	
4	3429	C	Using the Guidance Manual for Loading M.V. Grand Haven, determine the amount of ballast required in tank No. 3 (P & S) to maintain drafts of 17'-00" forward and 22'-06" aft for a vessel loaded with grain which has a test weight of 37.6 lbs.	930 tons each	955 tons each	975 tons each	990 tons each	
4	3430	C	How should the letter "Q" be pronounced when spoken on the radiotelephone?	QWE BEC	QUE BACH	KEH BECK	QU UE	
4	3431	B	The DEEP DRILLER, at a draft of 60 feet, has a KGL of 55.4 feet and an LCG of 2.37 feet. What is the trim in feet?	2.0 feet by the head	4.0 feet by the head	4.0 feet by the stern	8.0 feet by the stern	
4	3432	B	The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the KG of the liquid load.	6.1 feet	5.8 feet	5.4 feet	4.9 feet	ST-0129
4	3433	C	An inflatable liferaft should be lifted back aboard ship by using _____.	the single hook at the top of the raft	two line passed under the raft	the towing bridle	All of the above	
4	3434	D	The SS AMERICAN MARINER is ready to load the cargo listed. There is already 4260 tons of cargo on board with a KG of 25.8 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.	KG 24.6 feet	KG 25.0 feet	KG 25.4 feet	KG 25.9 feet	ST-0130
4	3435	C	Small wooden hull passenger vessels, whose routes are limited to coastwise warm water routes on the high seas, must carry approved life floats or buoyant apparatus _____.	for all persons on board	for not less than 67% of all persons permitted on board	for not less than 100% of all persons permitted on board	in place of ring life buoys	
4	3437	C	A jack-up 180 feet in length with the LCF at 120 feet AFO has a draft of 8 feet at the bow and 11 feet at the stern. What is the trim by the stern?	2.0 feet	2.4 feet	3.0 feet	6.0 feet	
4	3438	A	Generally, when lifting an inflatable liferaft back aboard ship, you would use the _____.	towing bridle	main weather cover	external lifelines	righting strap	
4	3440	A	How should the number "7" be pronounced when spoken on the radiotelephone?	SAY-TAY-SEVEN	SEE-ETA-SEVEN	NUM-BER-SEVEN	NEW-MER-AL-SEVEN	

4	3441	C	A semisubmersible, 200 feet in length between draft marks with the LCF 10 feet aft of amidships, records the following drafts: Port Forward 74'-09"; Port Aft 78'-09"; Starboard Forward 69'-09"; and Starboard Aft 73'-09". What is the trim?	-1.0 foot	-2.0 feet	-4.0 feet	-8.0 feet	
4	3442	C	When hanging off drill pipe in emergency situations aboard a MODU, the preferred location of the drill bit is _____.	on bottom with the full drill string in tension	one stand (approximately 93 feet) off bottom	no deeper than the shoe of the last casing set	as close to the surface as possible	
4	3443	D	The DEEP DRILLER, at a draft of 60 feet, has a KGT of 57.11 feet and TCG of 0.5 foot to port. What is the list angle?	2° port	3° port	4° port	5° port	
4	3444	A	The nautical term "lee shore" refers to the _____.	shore on the lee side of the vessel	shore that is in the lee	western shore of the Lesser Antilles	shore in a harbor of refuge	
4	3445	B	The DEEP DRILLER, at a draft of 55 feet, has a KGT of 53.05 feet and TCG of 0.5 foot to starboard. What is the list angle?	2.0°Starboard	2.9°Starboard	3.2°Starboard	3.5° starboard	
4	3446	A	To release the davit cable of a davit launched liferaft, you must _____.	pull the release lanyard	pull the hydraulic release	push the release button	pull on the ratchet handle	
4	3447	B	A semisubmersible, 200 feet in length between draft marks with the LCF 10 feet aft of amidships, records the following drafts: Port Forward 64'-09"; Port Aft 68'-09"; Starboard Forward 59'-09"; and Starboard Aft 63'-09". What is the list?	10 feet to port	5 feet to port	2.5 feet to port	5 feet to starboard	
4	3448	B	The SS AMERICAN MARINER is ready to load the cargo listed. There is already 3485 tons of cargo on board with a KG of 24.4 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.	KG 25.1 feet	KG 25.6 feet	KG 26.0 feet	KG 26.5 feet	ST-0131
4	3449	B	How many ring life buoys should a 700 foot cargo vessel, not subject to SOLAS, navigating the Great Lakes carry?	12	14	18	24	
4	3450	A	According to the regulations for lifeboat falls, which action must be taken at 30-month intervals?	End-for-ended	Renewed	Inspected	Weight tested	
4	3451	A	As shown, number 1 operates the _____.	Fleming gear	McCluny hook	sea painter	releasing gear	D011SA
4	3452	A	Your vessel's existing draft is FWD 29'-05", AFT 30'-07". Using the Guidance Manual for Loading M.V. GRAND HAVEN, determine the new draft if 540 long tons are loaded in No. 18 hatch.	FWD 29'-05", AFT 31'-03"	FWD 29'-09", AFT 30'-11"	FWD 30'-01", AFT 31'-03"	FWD 30'-04", AFT 29'-06"	
4	3453	D	Your rescue craft is broken down and rolling in heavy seas. You can reduce the possibility of capsizing by _____.	shifting the rudder constantly	moving all personnel forward and low	moving all personnel aft	rigging a sea anchor	
4	3454	A	A passenger vessel of 600 GT is required to have how many fire axes?	6	4	2	1	
4	3455	C	A semisubmersible, 200 feet in length between draft marks with the LCF 10 feet aft of amidships, records the following drafts: Port Forward 74'-09"; Port Aft 78'-09"; Starboard Forward 69'-09"; and Starboard Aft 73'-09". What is the list?	-1.0 foot	-2.5 feet	-5.0 feet	-10.0 feet	

4	3456	B	When a sea anchor for a survival craft is properly rigged, it will _____.	completely stop the survival craft from drifting	help to prevent broaching	prevent the survival craft from pitching	prevent the survival craft from rolling	
4	3458	B	When fighting a fire in a space containing an IMO class 1 hazardous cargo, the most effective fire fighting procedure is to _____.	shut down the ventilation and exclude all air to smother the fire	use water from fire hoses or a sprinkler system	activate the fixed CO2 firefighting system	use high-expansion foam	
4	3459	B	Using the Guidance Manual for Loading M.V. Grand Haven, determine the amount of ballast required in tank No.1 (P&S) to maintain drafts of 17'-00" forward and 22'-06" aft for a vessel loaded with grain which has a test weight of 39.5 lbs.	155 tons each	170 tons each	190 tons each	200 tons each	
4	3460	C	How should the letter "T" be pronounced when spoken on the radiotelephone?	TEE	TA HO	TANG GO	TU TU	
4	3461	D	The DEEP DRILLER is loaded as shown in the Sample Load Form #5 (Survival) when an unexpected slowly increasing port list and bow down trim occurs. A leak in C1P is found. By deballasting from ballast tanks 2P and 3P, the inclination slowly decreases. The increase in the transverse free surface correction is _____.	1.25 feet	0.82 foot	0.34 foot	0.18 foot	
4	3463	D	Which of the following statements relating to AMVER (Automated Mutual-assistance Vessel Rescue) is TRUE?	An AMVER participant is under greater obligation to render assistance to a vessel in distress than a non-participant.	An AMVER participant is not relieved of the obligation to give 24 hour advance notice to the U.S. Coast Guard before entering a U.S. port from offshore.	The AMVER system does not reduce the time lost for vessels responding to calls for assistance.	There is no cost to the ship or owner for messages sent within the AMVER system.	
4	3464	A	The SS AMERICAN MARINER is ready to load the cargo listed. There is already 3175 tons of cargo on board with a KG of 25.8 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.	KG 26.8 feet	KG 27.3 feet	KG 28.2 feet	KG 28.5 feet	ST-0132
4	3465	C	The free surface effects of a partially full liquid tank decrease with increased _____.	density of the liquid	placement of the tank above the keel	displacement volume of the vessel	size of the surface area in the tank	
4	3466	B	A sea anchor is _____.	a heavy metal anchor with an extra long line used to anchor in deep water	a cone shaped bag used to slow down the wind drift effect	a pad eye to which the sea painter is made fast	made of wood if it is of an approved type	
4	3468	A	Handholds or straps on the underside of an inflatable liferaft are provided _____.	to right the raft if it capsizes	to carry the raft around on deck	for crewmen to hang on to	to hang the raft for drying	
4	3469	B	The knife on an inflatable liferaft will always be located _____.	in one of the equipment bags	in a special pocket on the exterior of the canopy	on a cord hanging from the canopy	in a pocket on the first aid kit	
4	3470	C	According to the regulations for lifeboat falls, which action must be taken with the falls no later than 5-year intervals?	Proof tested	End-for-ended	Renewed	Weight tested	
4	3471	D	Every fishing vessel required to have a general alarm system must test it _____.	once every day that the vessel is operated	once every week that the vessel is operated	prior to operation of the vessel	Both B and C	

4	3472	B	If you find an inflatable liferaft container with the steel bands still in place around its case, you should _____.	tell the Master	leave the bands in place	tell the Mate	remove the bands yourself	
4	3473	C	In each inflatable rescue boat, what piece of equipment is provided to make quick, emergency, temporary repairs to a large hole in a raft?	No equipment is provided.	Glue and rubber patches	Several various-sized sealing clamps	Self-adhesive rubberized canvas patches	
4	3475	B	What is the increase in the longitudinal free surface correction for the DEEP DRILLER at a draft of 60 feet if 103.48 long-tons of ballast are transferred from a full ballast tank 1P to an empty ballast tank 10S?	0.50 foot	0.47 foot	0.27 foot	0.13 foot	
4	3477	B	What is the increase in the transverse free surface correction for the DEEP DRILLER at a draft of 60 feet if 103.48 long-tons of ballast are transferred from a full ballast tank 1P to an empty ballast tank 10S?	0.47 foot	0.32 foot	0.27 foot	0.13 foot	
4	3480	C	How should the number "6" be pronounced when spoken on the radiotelephone?	SOX-SIX	NUM-BER-SIX	SOK-SEE-SIX	NEW-MER-AL-SIX	
4	3481	A	The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the contents of #6 and #7 Drill Water Tanks are discharged, what is the new longitudinal free surface correction?	1.63 feet	2.14 feet	2.24 feet	2.38 feet	
4	3482	B	The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the KG of the liquid load.	5.1 feet	4.9 feet	2.9 feet	2.5 feet	ST-0133
4	3483	B	The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the contents of #6 and #7 Drill Water Tanks are discharged, what is the new transverse free surface correction?	1.77 feet	1.67 feet	1.56 feet	1.45 feet	
4	3484	D	Your 80-ton schooner is hove to on the starboard tack under storm trysail and fore-staysail in 45 knots of wind. Your heading is averaging about 000° true and the wind is from the northeast. There is a dangerous shoal bearing 270° true, range 5 miles. Which action would be appropriate?	You need only stay alert for changes, as your present drift will carry you away from the danger.	You should strike all sails and get underway under bare poles, making as much way as possible to the north.	You should set a reefed foresail and strike the jib.	You should tack or jibe to the port tack and make all possible headway to the south.	
4	3485	B	In the event the motion of the DEEP DRILLER is such that critical motion limits are exceeded, you should _____.	place the unit at 65 foot draft	place the unit at 45 foot draft	shift loads to increase KG	place the unit in standby	
4	3487	A	Generally, what is used to inflate liferafts?	non-toxic inert gas	Oxygen	Hydrogen	Carbon monoxide	
4	3490	D	According to the SOLAS regulations, lifeboat falls must be renewed at intervals of how many years?	2.5	3	4	5	
4	3491	D	The DEEP DRILLER, while loaded as shown in the Sample Load Form #4 (Drilling), suffers damage to the starboard forward column below the waterline. Pumping from tank 2S and 3S is not sufficient to prevent increasing starboard list and bow down trim. You should consider counterflooding in tank _____.	2P	9P	C2BP	10P	
4	3492	C	Your vessel's existing draft is FWD 17'-03", AFT 18'-09". Using the Guidance Manual for Loading M.V. Grand Haven, determine the new draft if 450 long tons are loaded in No. 16 hatch.	FWD 16'-11", AFT 19'-04 2/3"	FWD 17'-01", AFT 18'-11 1/4"	FWD 17'-04", AFT 19'-03 3/4"	FWD 17'-07", AFT 18'-11 1/4"	

4	3493	B	The longitudinal distance between draft marks for the DEEP DRILLER is _____.	122'-09"	164'-00"	260'-00"	260'-05"	
4	3494	D	A passenger vessel in river service which operates in fresh water at least 6 out of every 12 months since the last dry dock examination must be dry-docked at intervals not to exceed _____.	12 months	24 months	48 months	60 months	
4	3495	D	The SS AMERICAN MARINER arrived in port with drafts of: FWD 17'-10", AFT 19'-06". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.	FWD 16'-10", AFT 21'-02"	FWD 17'-00", AFT 21'-00"	FWD 17'-02", AFT 20'-10"	FWD 17'-04", AFT 20'-08"	ST-0134
4	3496	C	In general, how often are sanitary inspections of passenger and crew quarters made aboard passenger vessels in river service?	Once each day	Once each week	Once each month	Once each trip	
4	3498	B	Your passenger vessel is 130 feet (40 m) long and is alternatively equipped for operating in river service. The number of ring life buoys required for the vessel is _____.	2	4	6	8	
4	3500	D	How should the letter "Z" be pronounced when spoken on the radiotelephone?	ZEE BR AH	ZEE ZE	ZE HE	ZOO LOO	
4	3501	B	The DEEP DRILLER as currently configured is limited to a maximum water depth of _____.	400 feet	600 feet	800 feet	1,000 feet	
4	3502	B	How many self-contained breathing apparati are required aboard a 500 ton passenger vessel in river service with 75 passenger staterooms?	0	1	2	3	
4	3503	A	The transverse distance between draft marks for the DEEP DRILLER is _____.	122'-09"	164'-00"	217'-01"	260'-05"	
4	3504	C	The SS AMERICAN MARINER is ready to load the cargo listed. There is already 6280 tons of cargo on board with a KG of 25.5 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.	KG 25.3 feet	KG 25.7 feet	KG 26.0 feet	KG 27.1 feet	ST-0135
4	3505	A	The lightweight vertical moments for the DEEP DRILLER are _____.	680,914 ft-long tons	9,733 ft-long tons	-5,937 ft-long tons	-6,716 ft-long tons	
4	3506	A	You are on a Mariner class cargo vessel. Your drafts are: FWD 17'-04", AFT 19'-04". You wish to increase the calculated GM of 3.0' to 4.2'. What tanks should you ballast? (Use the white pages in the Stability Data Reference Book.)	Tanks: DB3, DB4	Tanks: DB6, DB3	Tanks: DB2, DB6	Tanks: DT7, DT8, DB3	
4	3507	D	The lightweight longitudinal moments for the DEEP DRILLER are _____.	680,914 ft-long tons	9,733 ft-long tons	-5,937 ft-long tons	-6,716 ft-long tons	
4	3508	D	Except in rare cases, it is impossible to extinguish a shipboard fire by _____.	interrupting the chain reaction	removing the heat	removing the oxygen	removing the fuel	
4	3509	B	The maximum draft of the SS AMERICAN MARINER cannot exceed 30'-01" in order to cross a bar. The present drafts are: FWD 29'-04", AFT 30'-06". Use the white pages of the Stability Data Reference Book to determine the minimum amount of sea water to ballast the forepeak to achieve this condition.	97 tons	100 tons	103 tons	106 tons	

4	3510	C	When required, the steering gear, whistle, and the means of communication between the pilothouse and the engine room on a passenger vessel shall be tested by an officer of the vessel within a period of not more than how many hours prior to departure?	4	8	12	24	
4	3511	C	The lightweight transverse moments for the DEEP DRILLER are _____.	680,914 ft-long tons	9,733 ft-long tons	-5,937 ft-long tons	000 ft-long tons	
4	3512	A	You have sent a visual signal to an aircraft. The aircraft then flies over your position on a straight course and level altitude. What should you do?	Repeat your signal.	Send any more signals necessary.	Change course to follow the airplane.	Prepare for a helicopter pickup.	
4	3513	B	The lightweight transverse free surface moments for the DEEP DRILLER are _____.	680,914 ft-long tons	000 ft-long tons	-5,937 ft-long tons	-6,716 ft-long tons	
4	3514	D	The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the KG of the liquid load.	2.8 feet	4.6 feet	6.8 feet	7.1 feet	ST-0136
4	3515	B	The lightweight longitudinal free surface moments for the DEEP DRILLER are _____.	680,914 ft-long tons	000 ft-long tons	-5,937 ft-long tons	-6,716 ft-long tons	
4	3516	B	Drinking salt water will _____.	will protect against heat cramps	dehydrate you	be safe if mixed with fresh water	prevent seasickness	
4	3517	B	What is the lightweight of the DEEP DRILLER?	680,914 long tons	9,733 long tons	5,937 long tons	6,716 long tons	
4	3518	D	The groups "AA" and "AB" are used in conjunction with what other group in signaling by flashing light?	WA	RQ	CS	RPT	
4	3519	B	A message by flashing light consists of the call, the identity, the ending, and the _____.	reply	text	time	answer	
4	3520	D	How should the number "5" be pronounced when spoken on the radiotelephone?	FIVE-ER	NEW-MARL-FIVE	NUM-ERL-FIVE	PAN-TAH-FIVE	
4	3521	D	Among the equipment included in the DEEP DRILLER lightweight are the derrick, traveling block in the lowest position, anchors, mooring chain, all machinery with liquids to normal operating level, and _____.	normal food supplies for 79 persons	eight anchor buoys	lower-hull fuel	loading hoses	
4	3522	C	You are on a Mariner class cargo vessel. Your drafts are: FWD 21'-04", AFT 23'-04". You wish to increase the calculated GM of 4.8' to 5.8'. What tanks should you ballast? (Use the white pages in the Stability Data Reference Book.)	Tanks: DB2, DB6	Tanks: DB6, DT7	Tanks: DB4, DB7	Tanks: DB2, DB5	
4	3523	A	Among the equipment included in the DEEP DRILLER lightweight are the loading hoses, traveling block in the lowest position, anchors, mooring chain, all machinery with liquids to normal operating level, and _____.	derrick	lower hull fuel	eight anchor buoys	normal food supplies for 79 persons	
4	3524	C	Each fireman's outfit and its spare equipment on a tankship must be stowed in a(n) _____.	locked cabinet in the machinery space	unlocked cabinet in the machinery space	separate and accessible location	location near a fire hydrant	
4	3525	C	Among the equipment included in the DEEP DRILLER lightweight are the loading hoses, derrick, traveling block in the lowest position, mooring chain, all machinery with liquids to normal operating level, and _____.	normal food supplies for 79 persons	eight anchor buoys	anchors	lower hull fuel	
4	3526	A	A message by flashing light consists of the call, the text, the ending, and the _____.	identity	time of origin	reply	procedure code	

4	3527	B	Among the equipment included in the DEEP DRILLER lightweight are the loading hoses, derrick, traveling block in the lowest position, anchors, all machinery with liquids to normal operating level, and _____.	normal food supplies for 79 persons	mooring chain	lower hull fuel	eight anchor buoys	
4	3528	C	The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the LCG-FP of the liquid load.	271.2 ft	288.8 ft	294.4 ft	305.3 ft	ST-0137
4	3529	B	The SS AMERICAN MARINER has the following drafts: FWD 08'-11.5", AFT 15'-11.5". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.	2.15 feet	2.05 feet	1.95 feet	1.75 feet	ST-0138
4	3531	A	The draft of the DEEP DRILLER in the lightweight condition is _____.	16.19 feet	17.71 feet	17.96 feet	18.35 feet	
4	3532	D	Your vessel's existing draft is FWD 19'-08", AFT 20'-04". Using the Guidance Manual for Loading M.V. GRAND HAVEN, determine the new draft if 840 long tons are loaded in No. 1 hatch.	FWD 18'-08", AFT 21'-06"	FWD 18'-09", AFT 21'-07"	FWD 18'-11", AFT 21'-09"	FWD 22'-00", AFT 19'-02"	
4	3533	C	If the maximum amount of weight is stored in the pipe racks of the DEEP DRILLER, what is the weight per square foot?	250.0 pounds per square foot	312.5 pounds per square foot	350.0 pounds per square foot	400.0 pounds per square foot	
4	3534	C	When a passenger vessel's plans must be permanently exhibited, they are NOT required to show information on the _____.	fire detection system	portable fire extinguishers	lifeboats, liferafts, and life preservers	ventilation systems	
4	3535	C	The marine riser on the DEEP DRILLER should be disconnected if it appears the ball joint angle will exceed 10° or the mooring line tensions will exceed _____.	348 kips	500 kips	522 kips	600 kips	
4	3536	A	There are two disadvantages to CO2 as a firefighting agent. One of these is the limited quantity available, and the other is _____.	the lack of cooling effect on heated materials	that it cannot be used in a dead ship situation with no electrical power to the CO2 pump	that it breaks down under extreme heat to form poisonous gases	there is no effect on a class A fire even in an enclosed space	
4	3537	D	The marine riser on the DEEP DRILLER should be disconnected if it appears the mooring line tensions will exceed 522 kips or the ball joint angle will exceed _____.	4°	5°	7°	10°	
4	3538	B	The SS AMERICAN MARINER has drafts of: FWD 22'-03", AFT 24'-00". Use the white pages of the Stability Data Reference Book to determine the drafts if you ballast the forepeak with 100.7 tons of seawater.	FWD 23'-00.3", AFT 23'-05.0"	FWD 23'-01.0", AFT 23'-05.7"	FWD 22'-11.3", AFT 23'-04.0"	FWD 22'-10.3", AFT 23'-06.0"	
4	3539	D	Using the Guidance Manual for Loading the M.V. Grand Haven, determine the amount of ballast required in tank No. 5 (P & S) to maintain drafts of 17'-00" forward and 22'-06" aft for a vessel loaded with grain which has a test weight of 33 lbs.	1010 tons each	1025 tons each	1050 tons each	1070 tons each	
4	3540	A	How should the letter "R" be pronounced when spoken on the radiotelephone?	ROW ME OH	AR AH	ROA MA O	AR EE	

4	3541	D	The DEEP DRILLER as currently configured is limited to a maximum drilling depth of _____.	18,400 feet	20,600 feet	22,800 feet	25,000 feet	
4	3542	B	An aircraft has indicated that he wants you to change course and follow him. You cannot comply because of an emergency on board. Which signal should you make?	Fire a red flare at night or a red smoke signal by day	Send the Morse signal "N" by flashing light	Make a round turn (360°) and resume course	Make an "S" turn (hard right then hard left) and resume course	
4	3543	D	The DEEP DRILLER's lightweight is the condition prior to loading _____.	deck load	deck load and lower-hull liquids	deck load, lower-hull liquids, and external loads	deck load, lower-hull liquids, external loads, and deploying anchors	
4	3544	D	A message by flashing light consists of the call, the identity, the text, and the _____.	destination	answer	time	ending	
4	3545	A	Until a change to lightweight has been approved, the weights and center of gravity locations for the changes to lightweight shown in the permanent record for the Deep Driller are treated as _____.	variable load	fixed load	basic load	gross tonnage	
4	3546	D	According to the regulations for passenger vessels, a "motor vessel" is one which is propelled by machinery other than steam and is more than _____.	16 ft. in length	34 ft. in length	45 ft. in length	65 ft. in length	
4	3547	A	The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.	Available GM 3.5 ft	Available GM 3.9 ft	Available GM 4.3 ft	Available GM 4.8 ft	ST-0139
4	3548	B	You are on a Mariner class cargo vessel. Your drafts are: FWD 26'-06", AFT 28'-02". You wish to increase the calculated GM of 2.7' to 2.9'. What tanks should you ballast? (Use the white pages in the Stability Data Reference Book.)	Tanks: DB1	Tanks: DB1, DT1	Tanks: DB2	Tanks: DB1, DT1, DT6	
4	3549	C	The SS AMERICAN MARINER arrived in port with drafts of: FWD 18'-10", AFT 18'-06". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.	FWD 18'-00", AFT 19'-06"	FWD 18'-02", AFT 19'-04"	FWD 18'-04", AFT 19'-02"	FWD 18'-06", AFT 19'-00"	ST-0140
4	3551	A	Which toxic gas is a product of incomplete combustion, and is often present when a fire burns in a closed compartment?	Carbon monoxide	Carbon dioxide	Hydrogen sulfide	Nitric oxide	
4	3552	C	You are communicating by radiotelephone using the International Code of Signals. What is the correct method of sending the group 1.3?	"Wun point tree"	"Unaone point tercetree"	"Unaone decimal terrathree"	"One decimal three"	
4	3553	A	The DEEP DRILLER is loaded as shown in Sample Load Form #3 (Preparing to Drill). What is the margin on the maximum allowable KG while drilling?	4.58 feet	5.24 feet	6.27 feet	6.94 feet	
4	3554	A	You are underway in mid-ocean, when you hear a distress message over the VHF radio. The position of the sender is 20 miles away. What action should you take?	Immediately acknowledge receipt of the distress message.	Defer acknowledgment for a short interval so that a coast station may acknowledge receipt.	Do not acknowledge receipt until other ships nearer to the distress have acknowledged.	Do not acknowledge because you are too far away to take action.	
4	3555	C	What are the maximum vertical moments, including free surface moments, permitted on the DEEP DRILLER at survival draft if the winds are greater than 70 knots?	912,120 foot-tons	942,120 foot-tons	996,522 foot-tons	998,927 foot-tons	

4	3556	A	The normal equipment of every rescue boat shall include _____.	compass	one 50 meter line	one can opener	All of the above	
4	3557	D	What are the maximum vertical moments, including free surface moments, permitted on the DEEP DRILLER at survival draft if the winds are less than 70 knots?	912,120 foot-tons	933,124 foot-tons	996,529 foot-tons	998,929 foot-tons	
4	3558	A	Limit switches are located on the survival craft winch systems for OSVs to _____.	stop the winch just before the survival craft reaches final stowage position	limit the amount of cable on the drum	limit the ascent rate	stop the winch in case the craft's weight exceeds the load lift limit	
4	3559	A	The rescue boat on an OSV is not required to carry a _____.	fishing kit	searchlight	sea anchor	radar reflector	
4	3560	D	How should the number "4" be pronounced when spoken on the radiotelephone?	QUAD-ROS-FOOR	NUM-ERL-FOUR	NUMB-ER-FOWER	KAR-TAY-FOWER	
4	3561	D	The DEEP DRILLER is operating with KGL at the maximum allowable value (70 knots) at a 60 feet draft. What is the value of GML?	0.05 foot	1.02 feet	1.06 feet	2.63 feet	
4	3562	C	The Master or person-in-charge of an OSV shall insure that each deck from which rescue boats are launched is _____.	surfaced with a nonskid texture	roped off to prevent unnecessary access	kept clear of any obstructions that would interfere with launching	posted with a list of persons assigned to the rescue boat	
4	3563	D	Because of the presence of 75 knot winds, the DEEP DRILLER is at survival draft. KGL is 1.24 feet less than the maximum allowed. What is the value of GML?	0.15 foot	1.00 foot	1.24 feet	1.39 feet	
4	3564	A	The sea painter of a rescue boat should be led _____.	forward and outboard of all obstructions	forward and inboard of all obstructions	up and down from the main deck	to the foremost point on the vessel	
4	3565	D	What are the maximum vertical moments, including free surface moments, permitted on the DEEP DRILLER at a draft of 60 feet if the winds are less than 70 knots?	942,120 foot-tons	946,271 foot-tons	974,441 foot-tons	1,059,885 foot-tons	
4	3566	D	The normal equipment of every rescue boat shall include _____.	buoyant oars	one 50 meter line	one first aid kit	All of the above	
4	3567	A	What are the maximum vertical moments including free surface moments permitted on the DEEP DRILLER at a draft of 60 feet if the winds are greater than 70 knots?	942,120 foot-tons	946,271 foot-tons	974,441 foot-tons	1,059,885 foot-tons	
4	3569	D	If help has not arrived in 10-12 hours after abandoning a vessel in a rescue boat, you should _____.	go in one direction until the fuel runs out	steer a course for the nearest land	steer a course for the nearest sea lane	shut down the engines if installed and put out the sea anchor	
4	3570	B	How many means of escape must be provided from passenger areas on a passenger vessel of 500 GT?	One	Two	Three	Two, unless there is an elevator provided	
4	3571	B	The DEEP DRILLER is anchoring in 600 feet of water. In the absence of environmental forces, the mooring lines should be adjusted to _____.	245 kips	222 kips	237 kips	194 kips	
4	3572	C	Your vessel's existing draft is FWD 25'-04", AFT 24'-08". Using the Guidance Manual for Loading M.V. GRAND HAVEN, determine the new draft if 634 long tons are discharged from NO. 19 hatch.	FWD 25'-00 1/4", AFT 25'-04 1/8"	FWD 25'-02 3/4", AFT 23'-08 5/8"	FWD 25'-05 1/4", AFT 23'-08 5/8"	FWD 25'-10 1/4", AFT 23'-11 3/4"	

4	3573	B	The DEEP DRILLER in transit is level at 23.0 feet draft. Strong winds are blowing from the starboard. A careful load form calculation determines that the TCG is 2.0 feet to starboard. What is the value of the wind heeling moment?	4,339 foot-long tons	26,033 foot-long tons	39,050 foot-long tons	78,099 foot-long tons	
4	3574	B	How many fire axes should be carried by a 700 GT cargo vessel, navigating the Great Lakes?	8	6	4	2	
4	3575	D	While in transit at a draft of 20.5 feet, the DEEP DRILLER has a KGL of 65.00 feet. What is the GML?	7.55 feet	5.42 feet	5.30 feet	5.10 feet	
4	3576	D	The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.	1220 tons	840 tons	460 tons	344 tons	ST-0141
4	3577	C	While being towed at a 19.5 foot draft, the DEEP DRILLER experiences single amplitude rolls of 10° with a period of 8 seconds. You should _____.	continue towing operations at a 19.5 foot draft	ballast the rig to a 60 foot draft and continue towing operations	ballast the rig to a 45 foot draft and check the vessel motions	alter course to bring the wind off the starboard beam	
4	3578	B	The "call" part of a signal by flashing light is made by the general call or by _____.	sending "CQ"	the identity signal of the station called	spelling the name of the station called	omitting the call if the name of the station is unknown	
4	3579	C	Using the Guidance Manual for Loading the M.V. Grand Haven, determine the amount of ballast required in tank No. 3 (P & S) to maintain drafts of 17'-00" forward and 22'-06" aft for a vessel loaded with grain which has a test weight of 34 lbs.	1190 tons each	1200 tons each	1220 tons each	1250 tons each	
4	3580	A	How should the letter "V" be pronounced when spoken on the radiotelephone?	VIK TAH	VIC TO RE	VIX TOO RE	VEE	
4	3581	A	The DEEP DRILLER, at a draft of 58 feet, has VM of 900,000 ft-tons, and FSMT of 20,000 ft-tons. What is the KGT?	51.6 feet	52.3 feet	53.8 feet	55.0 feet	
4	3582	C	You are downbound in an ice filled channel. An icebreaker is meeting you and sounds two short, one prolonged, and two short blasts on the whistle. What action should you take?	No action is required; the icebreaker will move out of the channel.	Move to the right hand side of the channel and slow to bare steerageway.	Stop your headway and await further signals.	Slow to bare steerageway and be prepared to come ahead as the icebreaker commences escorting your vessel.	
4	3583	D	The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the KG of the liquid load.	2.6 feet	2.8 feet	3.1 feet	4.3 feet	ST-0142
4	3585	D	When a man who has fallen overboard is being picked up by a rescue boat, the boat should normally approach with the wind _____.	astern and the victim just off the bow	ahead and the victim just off the bow	just off the bow and the victim to windward	just off the bow and the victim to leeward	
4	3586	C	A person has fallen overboard and is being picked up with a rescue boat. If the person appears in danger of drowning, the rescue boat should be maneuvered to make_____.	an approach from leeward	an approach from windward	the most direct approach	an approach across the wind	

4	3587	D	A person has fallen overboard and is being picked up with a rescue boat. If the person appears in danger of drowning, the rescue boat should be maneuvered to make_____.	an approach from leeward	an approach from windward	an approach across the wind	the most direct approach	
4	3588	B	For the purpose of training and drills, if reasonable and practicable, rescue boats on an OSV must be launched with their assigned crew _____.	once a week	once a month	once a year	twice a year	
4	3590	B	The patrolman, while on duty on a passenger vessel, must have in his possession a(n) _____.	nightstick	flashlight	passenger list showing assigned berths	A-I fire extinguisher	
4	3591	C	With no environmental forces on the DEEP DRILLER, the average of the starboard drafts is 59.0 feet, and the average of the port drafts is 61.0 feet. KGT is 52.84 feet. What is the value of TCG?	-2.00 feet	-1.00 foot	-0.16 foot	-0.10 foot	
4	3592	A	When should the emergency position-indicating radio beacon be activated after abandoning an OSV?	Immediately	After one hour	Only when another vessel is in sight	Only after sunset	
4	3593	C	The DEEP DRILLER is level at a draft of 58 feet when there are no environmental forces. What is the value of LCG?	0.00 (amidships)	2.23 feet forward of amidships	2.26 feet forward of amidships	2.31 feet forward of amidships	
4	3594	D	After having activated the emergency position indicating radio beacon, you should _____.	turn it off for 5 minutes every half-hour	turn it off and on at 5 minute intervals	turn it off during daylight hours	leave it on continuously	
4	3595	A	The DEEP DRILLER is level at a draft of 58 feet when there are no environmental forces. What is the value of TCG?	0.00 on the centerline	2.23 feet forward of amidships	2.26 feet forward of amidships	2.31 feet forward of amidships	
4	3596	D	The light on a life jacket must be replaced _____.	when the power source is replaced	each year after installation	every six months	when it is no longer serviceable	
4	3597	C	The DEEP DRILLER has a KGT of 52.90 feet while at a draft of 58.0 feet. List is 2.0 feet to port. What is the value of TCG?	-0.10 foot	-0.13 foot	-0.16 foot	-0.19 foot	
4	3598	D	If you have to abandon ship, the EPIRB can be used to _____.	hold the survival craft's head up into the seas	generate orange smoke	seal leaks in rubber rafts	send radio homing signals to searching aircraft	
4	3599	A	What should you do with your emergency position indicating radio beacon if you are in a lifeboat during storm conditions?	Bring it inside the liferaft and leave it on.	Bring it inside the liferaft and turn it off until the storm passes.	Leave it outside the liferaft and leave it on.	Leave it outside the liferaft and turn it off.	
4	3600	A	How should the number "3" be pronounced when spoken on the radiotelephone?	TAY-RAH-TREE	BEES-SOH-THREE	NUM-ERL-THREE	TRIC-THREE	
4	3601	B	For the DEEP DRILLER, the maximum permissible offset which can be tolerated while drilling is _____.	10% of water depth	6% of water depth	4% of water depth	2% of water depth	
4	3602	C	You are on a Mariner class cargo vessel. Your drafts are: FWD 22'-06", AFT 25'-06". You wish to increase the calculated GM of 4.8' to 5.9'. What tanks should you ballast? (Use the white pages in the Stability Data Reference Book.)	Tanks: DB3, DB4	Tanks: DB5, DT6	Tanks: DB2, DB5	Tanks: DB2, DB6, DB7	
4	3603	B	While anchored in 600 feet water depth, 3,150 feet of chain is deployed for line #8. Tension on that line is 220 kips. According to the DEEP DRILLER Operating manual, how much of that chain lies along the bottom?	994 feet	1,422 feet	1,728 feet	2,550 feet	

4	3604	B	You are the first vessel to arrive at the scene of a distress. Due to the volume of traffic on the radio, you are unable to communicate with the vessel in distress. Which action should you take?	Switch to flag hoists.	Broadcast "Seelonce Distress".	Broadcast "Charlie Quebec-Mayday-Quiet".	Key the microphone three times in quick succession.	
4	3605	B	While anchored in 700 feet of water, 3,150 feet of chain is deployed for line #4. Tension on that line is 200 kips. According to the DEEP DRILLER Operating Manual, how much of that chain lies along the bottom?	1,218 feet	1,398 feet	1,752 feet	1,844 feet	
4	3606	B	Which radiotelephone signal indicates receipt of a distress message?	Roger wilco	Romeo, romeo, romeo	SOS acknowledged	Mayday roger	
4	3607	A	With the DEEP DRILLER anchored in 500 feet of water and with the tension on the mooring chain of 170 kips, the length of the catenary is _____.	1,378 feet	1,423 feet	1,591 feet	1,624 feet	
4	3608	A	A fire has broken out on the stern of your vessel. You should maneuver your vessel so the wind _____.	comes over the bow	blows the fire back toward the vessel	comes over the stern	comes over either beam	
4	3609	C	General arrangement plans shall be permanently exhibited on all passenger vessels of at least _____.	200 GT and over	500 GT and over	1000 GT and over	1500 GT and over	
4	3610	A	A passenger vessel is underway. When may passengers visit the pilothouse?	Passengers are excluded from the pilothouse while underway.	Passengers are permitted in the pilothouse during daylight hours only.	Passengers are permitted to visit the pilothouse when authorized by the Master and officer of the watch.	Passengers are permitted in the pilothouse when they are escorted by a ship's officer.	
4	3611	D	Each life jacket light that has a non-replaceable power source must be replaced _____.	every 6 months after initial installation	every 12 months after initial installation	every 24 months after initial installation	on or before the expiration date of the power source	
4	3612	D	Your vessel's existing draft is FWD 14'-00", AFT 16'-00". Using the Guidance Manual for Loading M.V. GRAND HAVEN, determine the new draft if 350 long tons are discharged from No. 13 hatch.	FWD 13'-03 5/8", AFT 15'-03 1/8"	FWD 13'-04 3/4", AFT 15'-03 1/4"	FWD 13'-05 1/5", AFT 15'-04 3/5"	FWD 13'-08 4/5", AFT 15'-08 4/5"	
4	3614	D	While proceeding towards a distress site you hear the message "Seelonce Feenee" over the radiotelephone. Which action should you take?	Resume base course and speed because the distress situation is over.	Do not transmit over the radiotelephone.	Relay the initial distress message to the nearest shore station.	Resume normal communications on the guarded frequency.	
4	3615	B	The DEEP DRILLER is moored in 700 feet of water. The tension on anchor line #3 is 200 kips. What is the vertical component of chain tension for that line?	59.1 long tons	60.9 long tons	89.3 long tons	487.2 long tons	
4	3616	A	Which radiotelephone signal indicates receipt of a distress message?	Received mayday	Roger wilco	Seelonce	Mayday wilco	
4	3617	C	The DEEP DRILLER is moored in 600 feet of water. The average line tension is 190 kips. What is the total vertical component of chain tension?	55.3 long tons	428.8 long tons	442.4 long tons	678.4 long tons	
4	3618	C	The SS AMERICAN MARINER has drafts of: FWD 28'-00", AFT 29'-00". Use the white pages of the Stability Data Reference Book to determine the drafts if you ballast the forepeak with 81.05 tons of seawater.	FWD 28'-06.2", AFT 28'-06.2"	FWD 28'-06.3", AFT 28'-08.0"	FWD 28'-07.3", AFT 28'-07.8"	FWD 28'-10.0", AFT 28'-08.0"	
4	3620	C	How should the letter "O" be pronounced when spoken on the radiotelephone?	OCK TOW BER	O RI AN	OSS CAH	OA KAM	

4	3621	C	The DEEP DRILLER is moored in 700 feet of water. The average tension on the mooring lines is 200 kips. What is the total vertical component of chain tension?	60.9 long tons	472.8 long tons	487.2 long tons	714.4 long tons	
4	3622	B	The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.	451 tons	1126 tons	1451 tons	1726 tons	ST-0143
4	3623	D	You wish to communicate by radiotelephone with a foreign vessel using the International Code of Signals. This is indicated by the signal _____.	"Charlie Quebec"	"Code"	"Kilo"	"Interco"	
4	3624	A	What is the International Code signal for calling an unknown station using flashing light?	AA AA	UNK	STA	CQ	
4	3625	C	The DEEP DRILLER is on location during a storm. Windward anchor tensions begin to exceed the test tensions. To reduce tensions while minimizing offset over the well, you should _____.	increase tension on the leeward chain	pay out more chain on the windward side	reduce tension on the leeward chains	connect an emergency tow wire to the work boat	
4	3626	A	When personnel are lifted by a helicopter from an inflatable liferaft, the personnel on the raft should _____.	deflate the floor of the raft to reduce the danger of capsizing	inflate the floor of the raft to provide for additional stability	remove their lifejackets to prepare for the transfer	take in the sea anchor to prevent fouling of the rescue sling	
4	3627	A	The DEEP DRILLER is drilling on location at a 60 foot draft. Waves are approaching within 2 feet of the underside of the spider deck. You should _____.	suspend drilling operations and deballast to a 45 foot draft	continue drilling while ballasting to a 20 foot draft maximum air gap	deballast when the waves just begin to hit the underside of the spider deck	reduce tension on all anchor chains to increase draft	
4	3628	D	Each vessel in ocean and coastwise service must have an approved EPIRB. An EPIRB _____.	must be stowed in a manner so that it will float free if the vessel sinks	must be stowed where it is readily accessible for testing and use	is a devise that transmits a radio signal	All of the above	
4	3629	D	When a helicopter is lifting personnel from a rescue boat, the other individuals in the boat should _____.	enter the water in case the person being lifted slips from the sling	stand on the outside of the boat to assist the person being lifted	remove their lifejackets to prepare for their transfer to the helicopter	remain seated inside to provide body weight for stability	
4	3630	A	A passenger vessel is required to have a supervised patrol when _____.	there are passengers berthed on board	navigating in excess of eight hours	the vessel has substantial wood in its construction	there is no automatic fire-detection system installed	
4	3631	A	During an ice storm on board the DEEP DRILLER, the rig is uniformly covered with 414 tons of ice. At the beginning of the storm the rig was at 45 foot draft. After the storm the rig was at a 48 foot draft. Assume a KG of 127 feet for the new ice and an original KG of 58 feet. What is the new KG of the DEEP DRILLER?	59.74 feet	60.34 feet	61.19 feet	61.27 feet	
4	3632	D	When using a handheld smoke signal in a liferaft, you should activate the signal _____.	on the upwind side	inside the boat	at the stern	on the downwind side	
4	3633	B	The KG of the DEEP DRILLER increases from 57 feet to 59 feet while drilling at a 60 foot draft during an ice storm. What action should be taken?	Continue drilling operations while waiting for the ice to melt	Reduce the deck load until you reach the allowable KG for draft	Notify the USCG that the rig is temporarily above the allowable KG	Deballast to reach the allowable KG	

4	3634	C	You are underway in mid-ocean when you hear a distress message. The position of the sender is 150 miles away. No other vessel has acknowledged the distress. Your maximum speed is 5 knots and due to the seriousness of the distress, you cannot arrive on scene to provide effective assistance. What action should you take?	Do not acknowledge the distress message.	Send an urgency message about the distress.	Use the signal MAYDAY RELAY and transmit the distress message.	Transmit a message as though your vessel was in distress.	
4	3635	C	For the DEEP DRILLER, in deballasting to survival draft when threatened with heavy weather from 100 knot winds, a load form should be calculated to determine that _____.	the maximum allowable KG is exceeded	KG corrected for free surface effects does not exceed 62.24 feet	KG corrected for free surface effects does not exceed 62.09 feet	GM remains the same	
4	3636	B	The SS AMERICAN MARINER has the following drafts: FWD 08'-11.5", AFT 15'-11.5". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.	3.15 feet	3.05 feet	2.90 feet	2.80 feet	ST-0144
4	3637	A	In anticipation of heavy weather, it is decided to deballast the DEEP DRILLER to survival draft. The marine riser should be disconnected, pulled, and laid down. After doing so, the riser tension will be _____.	zero	equal to the weight of the riser	dependent on the water depth	applied at the riser tensioner sheaves	
4	3638	A	When using a handheld smoke signal in a liferaft, you should activate the signal _____.	on the downwind side	inside the boat	at the stern	on the upwind side	
4	3639	A	Which condition represents the appropriate time for setting off distress flares and rockets?	Only when there is a chance of their being seen by rescue vessels	At half hour intervals	At one hour intervals	Immediately upon abandoning the vessel	
4	3640	B	How should the number "2" be pronounced when spoken on the radiotelephone?	NUM-BER-TOO	BEES-SOH-TOO	DOS-SOH-TU	NEM-MARL-TWO	
4	3642	B	When communicating on the radiotelephone using plain English, what procedure word indicates the end of my transmission and that a response is necessary?	Out	Over	Roger	Wilco	
4	3643	A	Under extremely heavy weather on the DEEP DRILLER, when operating conditions are too severe to permit the drill string from being tripped out of the hole and laid down in the pipe racks, it may be _____.	hung off	placed in the setback	supported by the lower marine riser package	supported by the tensioners	
4	3644	B	When should distress flares and rockets be used?	Immediately upon abandoning the vessel	Only when there is a chance of their being seen by a rescue vessel	At one hour intervals	At half hour intervals	
4	3646	B	One of the signals, other than a distress signal, that can be used by a rescue boat to attract attention is a/an _____.	red star shell	searchlight	burning barrel	orange smoke signal	
4	3647	C	A distress signal _____.	consists of 5 or more short blasts of the fog signal apparatus	consists of the raising and lowering of a large white flag	may be used individually or in conjunction with other distress signals	is used to indicate doubt about another vessel's intentions	
4	3648	A	All of the following are recognized distress signals under the Navigation Rules EXCEPT _____.	a green star signal	orange-colored smoke	red flares	the repeated raising and lowering of outstretched arms	

4	3649	D	A man aboard a vessel, signaling by raising and lowering his outstretched arms to each side, is indicating _____.	danger, stay away	all is clear, it is safe to pass	all is clear, it is safe to approach	a distress signal	
4	3650	A	If your passenger vessel is fitted with a loudspeaker system, it must be tested at least once _____.	every week	a day	every trip	a watch or once a trip, whichever is shorter	
4	3651	D	Distress signals may be _____.	red flares	smoke signals	sound signals	Any of the above	
4	3652	B	Your vessel's existing draft is FWD 17'-04", AFT 18'-08". Using the Guidance Manual for Loading M.V. GRAND HAVEN, determine the new draft if 765 long tons are discharged from No. 7 hatch.	FWD 15'-04 3/4", AFT 18'-04"	FWD 15'-11 3/5", AFT 18'-11"	FWD 18'-08 2/5", AFT 18'-05"	FWD 18'-05 3/4", AFT 18'-10"	
4	3653	B	When a vessel signals her distress by means of a gun or other explosive signal, the firing should be at intervals of approximately _____.	10 minutes	1 minute	1 hour	3 minutes	
4	3654	C	You are communicating on the radiotelephone using plain English. Which procedural word (proword) indicates that you have received another vessel's transmission?	Out	Over	Roger	Wilco	
4	3655	D	You can indicate that your vessel is in distress by _____.	displaying a large red flag	displaying three black balls in a vertical line	sounding five or more short and rapid blasts on the whistle	continuously sounding the fog whistle	
4	3657	C	For planning purposes, the time required to place the DEEP DRILLER at survival draft from the drilling mode to counter heavy weather is _____.	2 hours	4 hours	6 hours	8 hours	
4	3658	D	The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the LCG-FP of the liquid load.	226.9 ft	238.3 ft	252.4 ft	268.8 ft	ST-0145
4	3659	A	Using the Guidance Manual for Loading the M.V. Grand Haven, determine the amount of ballast required in tank No. 1 (P&S) to maintain drafts of 17'-00" forward and 22'-06" aft for a vessel loaded with grain which has a test weight of 43 lbs.	23 tons each	50 tons each	75 tons each	150 tons each	
4	3660	B	How should the letter "W" be pronounced when spoken on the radiotelephone?	DUB A U	WISS KEY	WI NE	WOO LF	
4	3661	C	Under ideal conditions, the DEEP DRILLER can pick up and place pipe in the rack at a rate of about _____.	600 feet per hour	800 feet per hour	1,000 feet per hour	1,200 feet per hour	
4	3662	D	You are on a Mariner class cargo vessel. Your drafts are: FWD 24'-00", AFT 25'-08". You wish to increase the calculated GM of 3.0' to 4.1'. What tanks should you ballast? (Use the white pages in the Stability Data Reference Book.)	Tanks: DB3, DT1A	Tanks: DB2, DB6, DT6	Tanks: DB 3, FB7, DT1	Tanks: DB4, DT6	
4	3663	B	Before deballasting to survival draft in the event of predicted heavy weather, the DEEP DRILLER Operations Manual recommends that the mooring lines be slacked _____.	10 feet	20 feet	30 feet	40 feet	
4	3664	D	The SS AMERICAN MARINER has drafts of: FWD 29'-04", AFT 30'-06". Use the white pages of the Stability Data Reference Book to determine the drafts if you ballast the forepeak with 101.6 tons of seawater.	FWD 29'-04.5", AFT 30'-07.5"	FWD 29'-07.6", AFT 30'-05.0"	FWD 29'-04.5", AFT 30'-10.0"	FWD 30'-00.8", AFT 30'-01.0"	

4	3665	A	The time required to ballast the DEEP DRILLER to survival draft, when threatened with heavy weather, while under tow, is about _____.	2 hours	3 hours	4 hours	5 hours	
4	3666	D	When you are firing a pyrotechnic distress signal, it should be aimed at _____.	straight overhead	at the vessel whose attention you are trying to get	into the wind	about 60 degrees above the horizon	
4	3667	A	The principal action in changing from transit to survival draft in the event heavy weather threatens is _____.	ballasting	deballasting	disconnecting	hanging off	
4	3668	D	The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.	920 tons	1120 tons	1245 tons	1545 tons	ST-0146
4	3669	B	The free surface correction depends upon the dimensions of the surface of the free liquid and the _____.	volume of liquid in the tank	displacement of the vessel	location of the tank in the vessel	height of the center of gravity of the vessel	
4	3670	C	On a passenger vessel with stateroom accommodations, which space would NOT be required to be checked by the patrol between 10 pm and 6 am?	galley	public spaces with an automatic fire detection system	pilothouse	weather decks	
4	3671	D	The DEEP DRILLER, while loaded as shown in the Sample Load Form #4 (Drilling), suffers damage to the starboard center column below the waterline. Pumping from tanks 2S and 9S is not sufficient to prevent increasing starboard list. You should consider counterflooding in tank _____.	2P	9P	C2BS	C2BP	
4	3672	A	Which item of the listed survival craft equipment would be the most suitable for night signaling to a ship on the horizon?	A red parachute flare	A red handheld flare	An orange smoke flare	A flashlight	
4	3673	C	The DEEP DRILLER, while loaded as shown in the Sample Load Form #4 (Drilling), suffers damage to the port center column below the waterline. Pumping from tanks 2P and 9P is not sufficient to prevent increasing port list. You should consider counterflooding in tank _____.	2S	9S	C2BS	C2BP	
4	3674	C	Which condition represents the appropriate time for setting off distress flares and rockets?	At one hour intervals	At half hour intervals	Only when there is a chance of their being seen by rescue vessels	Immediately upon abandoning the vessel	
4	3675	D	The DEEP DRILLER, while loaded as shown in the Sample Load Form #4 (Drilling), suffers damage to the port forward column below the waterline. Pumping from tank 2P and 3P is not sufficient to prevent increasing port list and bow down trim. You should consider counterflooding in tank _____.	2S	9S	C2BS	10S	
4	3677	B	The DEEP DRILLER, while loaded as shown in the Sample Load Form #4 (Drilling), suffers damage to the starboard aft column below the waterline. Pumping from tanks 8S and 9S is not sufficient to prevent increasing starboard list and stern down trim. You should consider counterflooding in tank _____.	1S	1P	C2BP	10P	

4	3681	A	The DEEP DRILLER, while loaded as shown in the Sample Load Form #4 (Drilling), suffers damage to the port aft column below the waterline. Pumping from tank 8P and 9P is not sufficient to prevent increasing port list and stern down trim. You should consider counterflooding in tank _____.	1S	1P	C2BS	10S	
4	3683	B	While drilling loaded as shown in Sample Load Form #4 (Drilling), the DEEP DRILLER suffers a sudden unexpected starboard and aft inclination. The wind and waves are light. What might have caused the inclination?	Mooring lines 6 and 7 have failed.	The drilling crew has dumped the mud.	The drill string has broken.	Ballast tanks have equalized into tank 10S.	
4	3685	D	While drilling loaded as shown in Sample Load Form #4 (Drilling), the DEEP DRILLER suffers an unexpected but slowly increasing starboard and aft inclination. The wind and waves are light. This inclination could have been caused by _____.	the failure of mooring lines 6 and 7	the drilling crew dumping the mud	the drill string breaking	ballast tanks equalizing into tank 10S	
4	3687	D	While drilling loaded as shown in Sample Load Form #4 (Drilling), the DEEP DRILLER suffers an unexpected but slowly increasing port and aft inclination. The wind and waves are light. This inclination could have been caused by _____.	the failure of mooring lines 2 and 3	the drilling crew dumping the mud	the drill string breaking	ballast tanks equalizing into tank 10P	
4	3691	D	While drilling loaded as shown in Sample Load Form #4 (Drilling), the DEEP DRILLER suffers an unexpected but slowly increasing port and forward inclination. The wind and waves are light. This inclination could have been caused by _____.	the failure of mooring lines 5 and 6	the drilling crew dumping the mud	the drill string breaking	ballast tanks equalizing into tank 1P	
4	3693	D	While drilling loaded as shown in Sample Load Form #4 (Drilling), the DEEP DRILLER suffers an unexpected but slowly increasing starboard and forward inclination. The wind and waves are light. This inclination could have been caused by _____.	the failure of mooring lines 7 and 8	the drilling crew dumping the mud	the drill string breaking	ballast tanks equalizing into tank 1S	
4	3695	C	In storm conditions, when the environmental conditions are such that the DEEP DRILLER has disconnected the marine riser, the two leeward mooring lines should be _____.	tightened	slacked slightly	completely slacked	adjusted to give the same line tensions as the windward lines	
4	3696	B	The equipment required to remove an on-deck oil spill on a barge transferring oil must either be carried on board or _____.	on a tug standing by	available by contract with the shore facility	kept at the shoreside hose connection during transfer	kept in a protected shoreside location readily accessible	
4	3697	C	In storm conditions, when slacking the leeward mooring lines of the DEEP DRILLER, maintain in the chain locker at least _____.	500 feet	350 feet	200 feet	100 feet	
4	3701	C	While loaded as shown in Sample Load Form #5 (Survival), an estimated 250 long tons of snow and ice accumulates on the DEEP DRILLER at an estimated height of 127 feet. Assuming no corrective ballasting, what is the rise in the height of the center of gravity corrected for longitudinal free surface effects?	2.62 feet	2.20 feet	1.03 feet	0.71 foot	
4	3702	D	You may have to give artificial respiration after an accidental _____.	drowning	electrocution	poisoning	All of the above	

4	3703	B	While loaded as shown in Sample Load Form #5 (Survival), an estimated 250 long tons of snow and ice accumulates on the DEEP DRILLER at an estimated height of 127 feet. Assuming no corrective ballasting, what is the new height of the center of gravity corrected for longitudinal free surface effects?	58.78 feet	60.68 feet	61.53 feet	62.78 feet	
4	3705	C	While loaded as shown in Sample Load Form #5 (Survival), an estimated 250 long tons of snow and ice accumulates on the DEEP DRILLER at an estimated height of 127 feet. Assuming no corrective ballasting, what is the margin on maximum allowable KG?	1.55 feet	1.23 feet	0.50 foot	-1.45 feet	
4	3706	C	You are in charge of a fishing vessel with 18 individuals on board. You are required to conduct drills and give safety instruction at least once _____.	every week	every 15 days	every month	before you begin fishing	
4	3707	C	While loaded as shown in Sample Load Form #5 (Survival), an estimated 250 long tons of snow and ice accumulates on the DEEP DRILLER at an estimated height of 127 feet. Assuming no corrective ballasting, what is the new draft?	48'-06"	47'-03 1/2"	46'-09 3/4"	44'-06"	
4	3710	A	Which statement is CORRECT with respect to inserting an airway tube?	Only a trained person should attempt to insert an airway tube.	A size 2 airway tube is the correct size for an adult.	The airway tube will not damage the victim's throat.	Inserting the airway tube will prevent vomiting.	
4	3711	A	Changing rescuers while carrying out artificial respiration should be done _____.	without losing the rhythm of respiration	only with the help of two other people	by not stopping the respiration for more than 5 minutes	at ten minute intervals	
4	3712	C	The rescuer can best provide an airtight seal during mouth to mouth ventilation by pinching the victim's nostrils and _____.	cupping a hand around the patient's mouth	keeping the head elevated	applying his mouth tightly over the victim's mouth	holding the jaw down firmly	
4	3713	D	The DEEP DRILLER is loaded as shown in the Sample Load Form #5 (Survival) when an unexpected slowly increasing starboard list and bow down trim occurs. A leak in 1S is found. By deballasting from ballast tanks 2S and 3S, the inclination slowly decreases. The increase in the transverse free surface corrections is _____.	1.25 feet	0.90 foot	0.84 foot	0.22 foot	
4	3714	C	If someone suffers a heart attack and has ceased breathing, you should _____.	immediately give a stimulant, by force if necessary	make the victim comfortable in a bunk	immediately start CPR	administer oxygen	
4	3715	B	The necessity for administering artificial respiration may be recognized by the victim's _____.	vomiting	blue color and lack of breathing	irregular breathing	unconscious condition	
4	3716	C	In order to initiate CPR on a drowning victim, _____.	start chest compressions before the victim is removed from the water	drain water from the lungs before ventilating	begin mouth-to-mouth ventilations	do not tilt the head back since it may cause vomiting	
4	3717	B	During the passage of a severe storm, the DEEP DRILLER is at survival draft. Strong winds are blowing from the starboard. A careful load form calculation determined that, although the unit is level, the TCG is 2.0 feet to starboard. The value of the wind heeling moment is _____.	40,402 ft-long tons	32,099 ft-long tons	21,343 ft-long tons	19,982 ft-long tons	

4	3723	A	A patient suffering from heat exhaustion should be _____.	moved to a cool room and told to lie down	kept standing and encouraged to walk slowly and continuously	given a glass of water and told to return to work after 15 minutes of rest	None of the above is correct.	
4	3727	A	The DEEP DRILLER is engaged in wire line logging. You have 10,000 feet of drill pipe and bottom hole assembly in the set back. Marine weather forecasts are predicting weather with winds in excess of 70 knots. Your first step to prepare for the storm should be to _____.	suspend wire line operations and run the drill string into the hole	continue wire line operations and bring the rig to a 45 foot draft	suspend wire line operations and dump your mud pits overboard	increase tension on all anchor chains to minimize movement of the rig	
4	3730	D	The symptoms of heat exhaustion are _____.	slow and strong pulse	flushed and dry skin	slow and deep breathing	pale and clammy skin	
4	3731	A	If the DEEP DRILLER is damaged, the unit is designed to avoid downflooding in wind speeds up to _____.	50 knots	70 knots	90 knots	100 knots	
4	3732	B	Heat exhaustion is caused by excessive _____.	loss of body temperature	loss of water and salt from the body	gain in body temperature	intake of water when working or exercising	
4	3733	B	In the event of damage to the DEEP DRILLER which results in flooding to one of the lower-hull tanks, pump from _____.	nearby damaged tanks	nearby undamaged tanks containing ballast	tanks on the opposite corner	the opposite trim tank	
4	3735	B	Which procedure should be followed when individuals are rescued in cold climates and suffer from hypothermia?	Give them brandy or other alcoholic stimulation to promote a return to normal body temperature.	Move them to a warm room to gradually raise their body temperature.	Keep them moving to stimulate circulation to raise their body temperature.	Immerse them in a hot bath to rapidly raise their body temperature.	
4	3737	A	The most important consideration in the event the Deep Driller suffers damage is _____.	preserve reserve buoyancy	advise authorities	pump from adjacent undamaged compartments	counterflood on the opposite corner	
4	3741	A	Because of the presence of 75 knot winds, the DEEP DRILLER is at survival draft. KGT is 3.24 feet less than the maximum allowed. What is the value of GMT?	5.32 feet	5.17 feet	3.39 feet	3.24 feet	
4	3750	B	While providing assistance to a victim of an epileptic seizure, it is most important to _____.	give artificial respiration	prevent patient from hurting himself	keep the patient awake and make him/her walk if necessary to keep him/her awake	remove any soiled clothing and put the patient in a clean bed	
4	3758	C	To treat a person suffering from heat exhaustion, you should _____.	administer artificial respiration	put him in a tub of ice water	give him sips of cool water	cover him with a light cloth	
4	3759	C	Seasickness is caused by rolling or rocking motions which affect fluids in the _____.	stomach	lower intestines	inner ear	bladder	
4	3760	B	Symptoms of sea sickness include _____.	fever and thirst	nausea and dizziness	stomach cramps and diarrhea	reddening of skin and hives	
4	3761	A	Symptoms of sugar diabetes include _____.	increased appetite and thirst	decreased appetite and thirst	gain in weight	elevated temperature	
4	3762	D	The symptoms of a fractured back are _____.	leg cramps in the muscles in one or both legs	pain and uncontrolled jerking of the legs and arms	vomiting and involuntary urination or bowel movement	pain at the site of the fracture and possible numbness or paralysis below the injury	

4	3763	B	What is the procedure for checking for spinal cord damage in an unconscious patient?	Beginning at the back of the neck, and proceeding to the buttocks, press the spine to find where it hurts	Prick the skin of the hands and the soles of the feet with a sharp object to check for reaction	Selectively raise each arm and each leg and watch patient's face to see if he registers pain	Roll patient onto his stomach and prick along the length of his spine to check reaction	
4	3764	C	What are symptom(s) of a ruptured appendix?	Dilated pupils and shallow breathing	Diarrhea and frequent urination	Muscle tenseness in almost the entire abdomen	Extreme sweating and reddening skin	
4	3765	C	When administering first aid you should avoid _____.	any conversation with the patient	instructing bystanders	unnecessary haste and appearance of uncertainty	touching the patient before washing your hands	
4	3766	B	The primary concern in aiding a back injury patient is _____.	relieving the patient's pain by giving aspirin or stronger medication	avoiding possible injury to the spinal cord by incorrect handling	preventing convulsions and muscle spasms caused by the pain	providing enough fluids to prevent dehydration	
4	3771	B	What is the decrease in longitudinal moments for the Deep Driller if 2.0 feet of ballast is transferred from 1S to 10P?	15,265 ft-tons	14,609 ft-tons	7,293 ft-tons	5,174 ft-tons	
4	3772	C	The abandon ship signal sounded by the vessel's whistle is _____.	6 short blasts and 1 long blast	more than 6 short blasts	more than 6 short blasts and 1 long blast	1 long blast of at least 10 seconds	
4	3773	A	What is the ullage in P-Tank #4 of the DEEP DRILLER if the weight is 75.24 long tons?	4.0 feet	5.0 feet	10.2 feet	16.0 feet	
4	3774	B	The signal given to commence lowering the lifeboats is _____.	3 short blasts of the ship's whistle	1 short blast of the ship's whistle	3 long blasts of the ship's whistle	1 long blast of the ship's whistle	
4	3775	A	The sounding in fuel oil tank 4P on the DEEP DRILLER is 8.75 feet. What are the transverse moments for this amount of fuel?	-17,416 ft-long tons	-874 ft-long tons	3,992 ft-long tons	17,416 ft-long tons	
4	3776	B	If you continue to wear extra clothing when entering the water after abandoning your vessel, it will _____.	weigh you down	preserve body heat	reduce your body heat	make it more difficult to breathe	
4	3777	C	What is the weight of cement in P-tank #1 of the Deep Driller if the ullage is 3.4 feet?	11.5 long tons	16.6 long tons	54.2 long tons	78.2 long tons	
4	3778	D	When a ship is abandoned and there are several liferafts in the water, one of the FIRST things to be done is _____.	separate the rafts as much as possible to increase chances of detection	transfer all supplies to one raft	transfer all the injured to one raft	secure the rafts together to keep them from drifting apart	
4	3779	D	If more than one liferaft is manned after the vessel has sunk, _____.	each raft should go in a different direction in search of land	the possibility of a search aircraft finding you is increased by spreading out	reduce the number of liferafts by getting as many people as possible into as few rafts as possible	tie each of the rafts together and try to stay in a single group	
4	3780	B	One of the first actions to be taken by survivors when they have boarded an inflatable liferaft is to _____.	stream the sea anchor	take an anti-seasickness pill	open the pressure relief valve	drink at least one can of water	
4	3781	D	What is the weight of barite in P-tank #4 of the DEEP DRILLER if the ullage is 3.4 feet?	11.5 long tons	16.6 long tons	54.2 long tons	78.2 long tons	
4	3782	D	You have abandoned ship in tropical waters. Which procedure should be used during a prolonged period in a liferaft?	Wet clothes during the day to decrease perspiration.	Get plenty of rest.	Keep the entrance curtains open.	All of the above	
4	3783	B	What is the weight of bulk in P-tank #1 of the DEEP DRILLER if the ullage is 2.3 feet?	34.3 long tons	58.0 long tons	83.6 long tons	121.9 long tons	

4	3785	C	What are the vertical moments for P-Tank #1 on the DEEP DRILLER if the ullage is 3.0 feet?	1,167 foot-tons	4,002 foot-tons	6,758 foot-tons	9,739 foot-tons	
4	3786	B	When using the rainwater collection tubes of a liferaft, the FIRST collection should be _____.	passed around so all can drink	poured overboard because of salt washed off the canopy	saved to be used at a later time	used to boil food	
4	3787	C	What is the VCG for the cement in P-Tank #1 on the DEEP DRILLER if the ullage is 6.4 feet?	116.24 feet	116.44 feet	119.81 feet	123.06 feet	
4	3788	B	When you hear three short blasts on the ship's whistle and the same signal on the general alarm bells, you _____.	are required to be at your liferaft	are dismissed from drills	should point to the man overboard	should start the fire pump	
4	3789	B	The signal for a fire emergency on an OSV is _____.	a 30 second on 30 second off alternating signal	the continuous blast of the ships whistle for not less than 10 seconds supplemented by the continuous ringing of the general alarm bells for not less than 10 seconds	an intermittent ringing of the general alarm for not less than ten seconds	announced over the PA system	
4	3790	B	While reading the muster list you see that "3 short blasts on the whistle and three short rings on the general alarm bell bells" is the signal for _____.	abandon ship	dismissal from fire and emergency stations	fire and emergency	man overboard	
4	3791	D	What is the VCG of the additional load if P-tank #4 in the DEEP DRILLER Sample Load Form #1 (Transit) is completely filled ?	113.90 feet	117.01 feet	121.03 feet	123.06 feet	
4	3792	B	The SS AMERICAN MARINER has the following drafts: FWD 08'-11.5", AFT 15'-11.5". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.	3.10 feet	2.45 feet	2.00 feet	1.50 feet	ST-0147
4	3793	D	When the ullage is 6.4 feet in P-Tank #5 for the Deep Driller, what is the value of the longitudinal moment?	-2,254 foot-tons	-2,949 foot-tons	-3,392 foot-tons	-4,249 foot-tons	
4	3795	B	When the ullage is 5.7 feet in P-Tank #6 for the Deep Driller, the transverse moment for P-Tank #6 is _____.	1,288 foot-tons	1,887 foot-tons	3,169 foot-tons	4,596 foot-tons	
4	3796	B	Which of the following steps should normally be taken first by those who have boarded a liferaft in an emergency situation?	Ration food and water supplies	Search for survivors	Determine position and closest point of land	Check pyrotechnic supplies	
4	3797	A	What are the longitudinal moments for the contents of P-tank #1 of the DEEP DRILLER if the ullage is 2.3 feet?	-3,096 ft-tons	-3,880 ft-tons	-4,663 ft-tons	-6,509 ft-tons	

4	3799	A	With no alternative but to jump from an OSV, the correct posture should include _____.	holding down the lifejacket against the chest with one arm, crossing the other, covering the mouth and nose with a hand, and keeping the feet together	knees bent and held close to the body with both arms around legs	body straight and arms held tightly at the sides for a feet first entry into the water	both hands holding the lifejacket below the chin with knees bent and legs crossed	
4	3801	B	What are the vertical moments for the cement contents of P-tank #1 of the DEEP DRILLER if the ullage is 2.3 feet?	4,198 ft-tons	7,067 ft-tons	7,096 ft-tons	14,921 ft-tons	
4	3803	C	For the DEEP DRILLER, what are the transverse moments for a sounding of 5 feet in tank C3P?	1,005 foot-tons	2,139 foot-tons	-7,130 foot-tons	-10,797 foot-tons	
4	3804	A	All OSV personnel should be familiar with survival craft _____.	boarding and operating procedures	maintenance schedule	navigational systems	fuel consumption rates	
4	3805	D	For the DEEP DRILLER, what are the longitudinal moments for a sounding of 15 feet in tank C3P?	1,055 foot-tons	7,772 foot-tons	-21,391 foot-tons	-25,669 foot-tons	
4	3806	A	A liferaft which has inflated bottom-up on the water _____.	should be righted by standing on the carbon dioxide cylinder, holding the righting straps and leaning backwards	should be righted by standing on the life line, holding the righting straps leaning backwards	will right itself when the canopy tube inflates	must be cleared of the buoyant equipment before it will right itself	
4	3807	B	For the DEEP DRILLER, What are the vertical moments for a sounding of 10 feet in tank C3P?	1,055 foot-tons	4,754 foot-tons	14,621 foot-tons	17,113 foot-tons	
4	3809	B	Provided every effort is used to produce, as well as preserve body moisture content by avoiding perspiration, how long is it normally possible to survive without stored quantities of water?	Up to 3 days	8 to 14 days	15 to 20 days	25 to 30 days	
4	3810	D	If help has not arrived in 10-12 hours after having abandoned an OSV in a survival craft, you should _____.	go in one direction until the fuel runs out	plot course for the nearest land	take a vote on the direction in which to go	shutdown the engines and put out the sea anchor	
4	3811	C	The sounding in fuel oil tank 4P on the DEEP DRILLER is 8.75 feet. What are the longitudinal moments for this amount of fuel?	-17,416 ft-long tons	-874 ft-long tons	3,992 ft-long tons	17,416 ft-long tons	
4	3812	A	If you have to abandon ship, and enter a liferaft, your main course of action should be to _____.	remain in the vicinity of the sinking vessel	head for the closest land	head for the closest sea-lanes	get a majority opinion	
4	3813	B	The sounding in tank 1P of the DEEP DRILLER is 7.58 feet. What are the vertical moments for this quantity of ballast?	729 ft-long tons	991 ft-long tons	19,609 ft-long tons	27,652 ft-long tons	
4	3814	A	If you are forced to abandon ship in a rescue boat, you should _____.	remain in the immediate vicinity	head for the nearest land	head for the closest sea-lanes	vote on what to do, so all hands will have a part in the decision	
4	3815	C	Among the valves to open when deballasting using tanks 1P and 10P of the DEEP DRILLER is _____.	2 Port	24 Port	48 Port	44 Port	
4	3816	C	When abandoning an OSV, following the launching of the survival craft you should _____.	plot a course for the nearest land	take a vote on the direction in which to go	stay in the immediate area	go in one direction until fuel runs out	
4	3817	A	What is the change in longitudinal moments for the DEEP DRILLER if 103.48 long tons of ballast is discharged from a full ballast tank 1P?	10,944 foot-tons decrease	7,761 foot-tons decrease	6,707 foot-tons decrease	155 foot-tons decrease	

4	3818	A	To keep injured survivors warm in the water after abandoning an OSV, when no rescue craft is in sight, they should _____.	be placed in the middle of a small circle formed by the other survivors in the water	float on their backs with their arms extended for maximum exposure to the air	remove their life jackets and hold on to uninjured survivors	sip seawater at intervals of fifteen minutes	
4	3819	B	If there are a number of survivors in the water after abandoning an OSV and no rescue craft are in sight, they should _____.	tie themselves to the unit to avoid drifting with the current	group to form a small circle of survivors to create a warmer pocket of water in the center of the circle	send the strongest swimmer to shore for assistance	from a raft by lashing their life jackets together	
4	3820	C	Once the daily ration of drinking water in a survival situation has been established, the drinking routine should include _____.	small sips at regular intervals during the day	a complete daily ration at one time during the day	one-third the daily ration three times during the day	small sips only after sunset	
4	3821	B	What is the change in transverse moments for the DEEP DRILLER if 103.48 long tons of ballast is discharged from a full ballast tank 1P?	10,944 foot-tons decrease	7,761 foot-tons increase	1,797 foot-tons increase	155 foot-tons decrease	
4	3822	B	In the first 24 hours after abandoning a vessel, water should be given only to personnel who are _____.	thirsty	sick or injured	wet	awake	
4	3823	C	What is the change in vertical moments for the DEEP DRILLER if 103.48 long tons of ballast is discharged from a full ballast tank 1P?	6,707 foot-tons decrease	4,984 foot-tons decrease	1,914 foot-tons decrease	155 foot-tons decrease	
4	3824	A	After abandoning a vessel, water consumed within the first 24 hours _____.	will pass through the body with very little being absorbed by the system	will help prevent fatigue	will quench thirst for only two hours	help prevent seasickness	
4	3825	A	What is the change in longitudinal moments for the DEEP DRILLER if 103.48 long-tons of ballast is transferred from a full ballast tank 1P to an empty ballast tank 10S?	21,913 foot-tons decrease	13,414 foot-tons decrease	10,944 foot-tons decrease	6,707 foot-tons decrease	
4	3826	B	You have abandoned ship and are in charge of a liferaft or survival craft. How much water per day should you permit each person to have after the first 24 hours?	1 can	1 pint	1 quart	1 gallon	
4	3827	B	What is the change in transverse moments for the DEEP DRILLER if 103.48 long-tons of ballast is transferred from a full ballast tank 1P to an empty ballast tank 10S?	15,522 foot-tons increase	15,181 foot-tons increase	3,594 foot-tons increase	1,797 foot-tons increase	
4	3830	B	Inflatable liferafts must be overhauled and inspected at a U. S. Coast Guard approved service facility every _____.	six months	twelve months	eighteen months	twenty-four months	
4	3831	C	Among the valves to open on the DEEP DRILLER, if you have to transfer ballast from Tank 10P to Tank 1S using #1 ballast pump, is valve _____.	24 Port	33 Port	34 Port	44 Port	
4	3832	C	The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the LCG-FP of the liquid load.	229.8 ft	234.3 ft	246.8 ft	251.5 ft	ST-0148
4	3833	A	Among the valves to open on the DEEP DRILLER, if you have to transfer ballast from Tank 1P to Tank 10S using #1 ballast pump, is valve _____.	33 Starboard	44 Starboard	33 Port	44 Port	
4	3835	A	What port-side valves must be open to transfer ballast from Tank 10P to Tank 1P on the DEEP DRILLER, using the Port #1 ballast pump?	23, 35, 34, 33, 43, and 2	23, 43, 33, and 1B	23, 33, 43, and 1	23, 35, 34, 33, 43, and 1	

4	3837	A	What port-side valves must be open to transfer ballast from Tank 1P to Tank 10P on the DEEP DRILLER using the Port #1 ballast pump?	1, 33, 43, and 24	1, 33, 44, 45, and 23	1, 34, 35, and 23	1, 33, 43, 48, and 23	
4	3838	A	Fire dampers prevent the spread of fire by _____.	convection	conduction	radiation	direct contact	
4	3840	B	The painter of the inflatable liferaft has a length of _____.	25 feet	100 feet	200 feet	400 feet	
4	3841	C	What is the change in the vertical moments for the DEEP DRILLER if 2.0 feet of ballast is transferred from a full ballast tank 3P to an empty ballast tank 10P?	43 ft-tons increase	69 ft-tons decrease	556 ft-tons decrease	5,575 ft-tons decrease	
4	3843	D	The sounding in tank 1P of the DEEP DRILLER is 7.58 feet. What are the longitudinal moments for this quantity of ballast?	729 ft-long tons	6,707 ft-long tons	19,609 ft-long tons	27,652 ft-long tons	
4	3845	C	On the DEEP DRILLER, among the valves to open when transferring ballast from Tank 1S to Tank 10P using the #1 ballast pump is valve _____.	33 Starboard	44 Starboard	33 Port	44 Port	
4	3847	D	On the DEEP DRILLER, among the valves to open when transferring ballast from Tank 10S to Tank 1P using the #2 ballast pump is valve _____.	33 Starboard	44 Starboard	33 Port	34 Port	
4	3848	D	Each personal flotation device light on an OSV that has a non-replacement power source must be replaced _____.	every six months after initial installation	every 12 months after initial installation	every 24 months after initial installation	on or before the expiration date of the power source	
4	3850	D	Each personal flotation device light on an OSV that has a non-replaceable power source must be replaced _____.	every six months after initial installation	every 12 months after initial installation	every 24 months after initial installation	on or before the expiration date of the power source	
4	3851	B	On the DEEP DRILLER, among the valves to open when transferring ballast from Tank 10P to Tank 1S using the #2 ballast pump is valve _____.	33 Starboard	36 Starboard	33 Port	36 Port	
4	3852	D	The light on a personal flotation device on an OSV must be replaced _____.	when the power source is replaced	each year after installation	every six months	when it is no longer serviceable	
4	3853	D	Coast Guard Regulations (46 CFR) require inflatable liferafts to be equipped with _____.	a first aid kit	an instruction manual	a sea anchor	All of the above	
4	3854	B	According to the regulations, the capacity of a liferaft is required to be marked _____.	on the Muster List ("Station Bill")	at the liferaft stowage location	on the Certificate of Inspection	in the Operations Manual	
4	3855	B	Which document will describe lifesaving equipment located aboard your vessel?	Muster List ("Station Bill")	Certificate of Inspection	Forecastle Card	Clearance Papers	
4	3856	D	The immersion suit requirements for OSV apply to units operating in the Atlantic Ocean _____.	above 20 degrees North and below 20 degrees South	above 25 degrees North and below 25 degrees South	above 30 degrees North and below 30 degrees South	above 32 degrees North and below 32 degrees South	
4	3857	C	Where would you find a list of the lifesaving equipment onboard your supply boat?	Ship's Articles	Muster List ("Station Bill")	Certificate of Inspection	U.S. Coast Guard Regulations	
4	3858	B	Lifesaving equipment shall be stowed so that it will be _____.	locked up	readily accessible for use	inaccessible to passengers	on the topmost deck of the vessel at all times	
4	3859	D	When can a work vest be substituted for a lifejacket in the total count of the required lifesaving gear?	When it is approved by the Coast Guard	When working near or over the water	When stowed away from the ring buoys	A work vest may never be counted as a lifejacket.	
4	3860	C	Lifejackets should be stowed in _____.	the forepeaks	the pumproom	readily accessible spaces	locked watertight containers	

4	3861	D	Coast Guard Regulations (46 CFR) require that life jackets shall be _____.	provided for each person onboard	provided for all personnel of watch	readily accessible to persons in the engine room	All of the above	
4	3862	C	In accordance with Coast Guard Regulations, Coast Guard approved buoyant work vests _____.	should be stowed in engineering spaces in lieu of approved life jackets because they are less bulky and permit free movement in confined spaces	may be used as a substitute for approved life preservers during routine drills, but never during an emergency	should not be stowed where they could be confused with life jackets in an emergency	All of the above	
4	3863	B	On an OSV, how many ring buoys are required to have a buoyant line attached?	One ring life buoy	One ring life buoy on each side of the OSV	Three ring life buoys	Two ring life buoys on each side of the OSV	
4	3864	C	Of the required ring life buoys for an OSV, how many must be equipped with a waterlight?	8	4	2	1	
4	3865	B	What is the minimum required number of ring life buoys on an OSV certified for ocean service?	4	8	12	16	
4	3866	B	Each distress signal and self-activated smoke signal must be replaced not later than the marked date of expiration, or not more than how many months from the date of manufacture?	48	42	36	30	
4	3867	D	Each OSV must carry _____.	one category I 406 Mhz satellite EPIRB	at least one life buoy on each side of the vessel fitted with a buoyant life line	at least 12 rocket parachute flares	All of the above	
4	3868	B	The rescue boat on an OSV shall carry a tow line strong enough to tow the vessel's largest loaded liferaft at a speed of at least _____.	1 knot	2 knot	5 knot	10 knot	
4	3870	C	Each EPIRB required on an OSV shall be tested using the integrated test circuit and output indicator every _____.	week	two weeks	month	two months	
4	3871	B	On the DEEP DRILLER, among the port-side valves to open when deballasting from ballast tank 2P is valve _____.	3	5	6	7	
4	3872	C	For an OSV not on an international voyage, an approved substitute for an impulse projected type line throwing appliance is a _____.	spring-loaded line thrower	hand thrown buoyant line	shoulder type line throwing gun	heaving line	
4	3873	C	On the DEEP DRILLER, among the starboard-side valves to open when deballasting from ballast tank 8S is valve _____.	7	8	17	18	
4	3876	B	What is NOT a requirement for testing the line throwing appliance on a vessel?	A drill should be conducted every three months.	A regular service line must be used when it's fired.	A regular projectile must be used when it's fired.	The actual firing is at the discretion of the Master.	
4	3877	D	On the DEEP DRILLER, among the starboard-side valves to open when deballasting from ballast tank 2S is valve _____.	8	19	20	48	
4	3879	A	The signal given to commence lowering the lifeboats is _____.	1 short blast on the ship's whistle	3 short blasts on the ship's whistle	3 long blasts on the ship's whistle	1 long blast on the ship's whistle	

4	3880	D	The Emergency Position Indicating Radio beacon on an OSV vessel must be stowed _____.	in an inside passageway	in an approved bracket	so that it is accessible from the pilothouse of the vessel	so that it will float free if the vessel sinks	
4	3881	B	On the DEEP DRILLER, among the starboard-side valves to open when deballasting from ballast tank 2S is valve _____.	3	5	6	7	
4	3883	C	Which vessel greater than 100 GT is NOT required to have an EPIRB.	A sailing vessel	A fishing vessel	A non self-propelled vessel	A towing vessel	
4	3885	A	On the DEEP DRILLER, among the starboard-side valves to open when flooding through the overboard discharge into ballast tank 1S is valve _____.	2	3	7	37	
4	3886	D	Which type EPIRB must each ocean-going OSV carry?	Class A	Class B	Class C	Category I	
4	3888	A	CATEGORY I EPIRB's transmit on frequencies that are monitored by _____.	orbiting satellites in space	commercial radio stations	private, commercial, and military aircraft	Both A & C	
4	3891	A	Which statement is TRUE concerning distress signals in a survival craft?	Hand held flares and orange smoke signals are required.	If hand-held rocket-propelled parachute flares are provided, they are the only distress signals required.	Two hand-held smoke signals shall be provided.	A Very pistol with twelve flares is required.	
4	3893	C	When filling fuel-oil tank 4S on the DEEP DRILLER, it is necessary to open valve _____.	9	10	11	12	
4	3895	D	When filling fuel-oil tank 6P on the DEEP DRILLER, it is necessary to open valve _____.	9	10	11	12	
4	3901	B	Among the valves on the DEEP DRILLER to open when using the Salt-Water Service Pump to pump water into tank 10S is _____.	48	47	37	23	
4	3902	A	The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.	Available GM 3.0 ft	Available GM 3.7 ft	Available GM 4.0 ft	Available GM 4.2 ft	ST-0149
4	3903	C	Among the valves on the DEEP DRILLER which may be opened when using the Salt-Water Service Pump to pump water into Tank 1P is _____.	33	36	46	48	
4	3905	A	On the DEEP DRILLER, when using the starboard #2 ballast pump to provide water to the main deck from the sea, it is necessary to open valves _____.	37, 35, 36, 45	37, 36, 46, 47	38, 47	38, 47, 45, 46	
4	3906	B	When a lifeline is required to be attached to a ring life buoy it must be at least _____.	30 feet long	60 feet long	90 feet long	120 feet long	
4	3911	C	For the DEEP DRILLER, it is recommended that the number of lower-hull ballast tanks with free surfaces be less than _____.	2	4	6	8	
4	3913	A	The DEEP DRILLER, at a draft of 60 feet, has 50,000 ft-tons of longitudinal moments. How much ballast should be transferred between tanks 1P and 10P to level the unit longitudinally?	45.3 long tons	90.6 long tons	118.1 long tons	236.1 long tons	
4	3915	A	The DEEP DRILLER, at a draft of 60 feet, has 35,000 ft-tons of longitudinal moments. How much ballast should be transferred between tanks 1P and 10P to level the unit longitudinally?	25.5 long tons	50.2 long tons	165.3 long tons	330.2 long tons	

4	3917	A	The DEEP DRILLER, at a draft of 60 feet, has 3,765 ft-tons of transverse moments. How much ballast should be transferred between tanks 1P and 1S to level the unit in list?	25.1 long tons	50.2 long tons	62.8 long tons	252.1 long tons	
4	3918	A	If your liferaft is to leeward of a fire on the water, you should FIRST _____.	cut the line to the sea anchor	paddle away from the fire	splash water over the liferaft to cool it	get out of the raft and swim to safety	
4	3921	A	The DEEP DRILLER, at a draft of 60 feet, has -3,600 ft-tons of transverse moments. How much ballast should be transferred between tanks 10P and 10S to level the unit in list?	25.1 long tons	50.2 long tons	62.8 long tons	252.1 long tons	
4	3923	C	Among the valves that must be opened on the DEEP DRILLER to pump bilge water out of the port pump room using the #1 bilge pump is valve _____.	28	36	41	42	
4	3925	D	Among the valves that must be opened on the DEEP DRILLER to pump bilge water out of the port pump room using both bilge pumps is valve _____.	26	28	36	41	
4	3927	D	What pump may be used to supplement the bilge pump on the DEEP DRILLER?	#1 Ballast	#2 Ballast	Salt-Water Service	Drill water	
4	3928	A	Immediately after abandoning a vessel, lookouts should be posted aboard liferafts to look for _____.	survivors in the water	food and water	land	bad weather	
4	3931	C	Aboard the DEEP DRILLER, to use the drill water pump to supplement the bilge pumps, it is necessary to open valves 26 and _____.	41	29	28	25	
4	3933	C	On the DEEP DRILLER, the drill water pump may be used to supplement the bilge pumps. Its normal pumping rate is _____.	250 gallons per minute	350 gallons per minute	500 gallons per minute	700 gallons per minute	
4	3934	A	The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the LCG-FP of the liquid load.	228.8 ft	238.3 ft	252.4 ft	266.5 ft	ST-0150
4	3935	D	To pump bilge water out of the port pump room on the DEEP DRILLER, using the #2 bilge pump, open port-side valve _____.	28	36	41	42	
4	3937	C	On the DEEP DRILLER, to pump bilge water out of the starboard pump room using both bilge pumps, it is necessary to open valves _____.	41 and 42	39 and 40	39, 40, 41, and 42	39, 40, 41, 42, 26, and 28	
4	3941	A	Aboard the DEEP DRILLER, the drill water pump may be used to provide drill water to the deck and _____.	supplement the bilge pumps	provide saltwater service to the deck	emergency fuel-oil recovery	supplement the ballast pumps	
4	3943	B	On the DEEP DRILLER, to use the drill water pump to supplement the bilge pumps, it is necessary to open valves 28 and _____.	25	26	29	48	
4	3944	D	What is the most vulnerable part of the fire main system?	The fire pump	Exposed hard piping	The hydrant valve	The fire hose	
4	3945	A	Aboard the DEEP DRILLER, the bilge pumps take suction from the pump rooms, cofferdam, void area, access trunk, and _____.	center column chain lockers	backup drill water tank	primary salt-water service tank	forward and after column chain lockers	
4	3946	B	Fusible-link fire dampers are operated by _____.	a mechanical arm outside the vent duct	the heat of a fire melting the link	electrical controls on the bridge	a break-glass and pull-cable system	

4	3947	B	The midships house of your break bulk ship is constructed with an interior stair tower from the main deck to the bridge. Under what circumstances may the doors from each deck to the stair tower be kept open when underway?	They can be kept open if the Muster List ("Station Bill") has personnel designated to close them in case of fire.	They may be kept open if they can be automatically closed from the bridge.	They may be kept open if the ventilation or air conditioning system is shut down.	They are to be kept closed at all times.	
4	3950	A	You are picking up a conscious person that has fallen overboard. Recovery is easier if you approach with the _____.	victim to leeward	victim to windward	wind on your port side	wind on your starboard side	
4	3951	A	All personnel on board a vessel should be familiar with the rescue boat's _____.	boarding and operating procedure	maintenance schedules	navigational systems	fuel consumption rates	
4	3953	D	To turn over a liferaft that is floating upside down, you should pull on the _____.	canopy	manropes	sea painter	righting lines	
4	3954	D	The float free link attached to a sea painter on an inflatable liferaft has a breaking strength of _____.	100-134 lbs for buoyant apparatus with a capacity of 10 persons or less	200-268 lbs for buoyant apparatus with a capacity of 11 to 20 persons	400-536 lbs for buoyant apparatus with a capacity of 21 persons or more	All of the above	
4	3955	C	The person-in-charge shall insure that each rescue boat on an OSV is lowered to the water, launched and operated at least once every _____.	week	two months	three months	six months	
4	3957	A	The DEEP DRILLER is loaded as shown in the Sample Load Form #4 (Drilling). What would be the weight of the mud in pit #4 if the sounding level changed from 8 to 6 feet?	80.00 long tons	77.75 long tons	83.34 long tons	106.67 long tons	
4	3958	C	If there's a fire aboard your vessel, you should FIRST _____.	notify the Coast Guard	have passengers put on life preservers	sound the alarm	cut off air supply to the fire	
4	3961	B	The DEEP DRILLER is loaded as shown is Sample Load Form #4 (Drilling). What would be the change in vertical moments for Fresh Water if the entire contents of Drill Water Tank 5P are transferred to Drill Water Tank 5S?	5,683 ft-tons	2,689 ft-tons	306 ft-tons	000 ft-tons	
4	3962	B	When should food or water be provided to survivors after boarding a liferaft?	After 12 hours	After 24 hours	After 48 hours	Some food and water should be consumed immediately and then not until 48 hours later	
4	3963	C	Salt water ballast tank 2P on the DEEP DRILLER contains 5.0 feet of ballast. It is decided to fill the tank. What is the VCG of the added liquid?	7.5 feet	10.0 feet	12.5 feet	15.0 feet	
4	3964	B	Paints and solvents on a vessel should be _____.	stored safely in a cool dark non-ventilated area until work is completed	resealed and returned to a well ventilated area after each use	covered at all times to protect from ignition sources	stored in a suitable gear locker	
4	3965	A	In the DEEP DRILLER, the transverse and longitudinal free surface moments for entry into the daily load form are obtained _____.	from tank tables	by multiplying displacement by the free surface correction	by dividing by displacement	by dividing by the free surface correction	
4	3966	D	In the illustration shown, the righting strap is shown as item number _____.	8	9	12	16	D014SA

4	3967	C	The sounding in tank 1P of the DEEP DRILLER is 7.58 feet. It is decided to fill tank 1P by flooding through the sea chest. What are the vertical moments for the added ballast?	6,899 ft-long tons	6,149 ft-long tons	5,908 ft-long tons	2,615 ft-long tons	
4	3969	D	The sea anchor shown as item number 14 will NOT _____.	check the liferaft's way	keep the liferaft end on to the sea	reduce the possibility of capsizing or broaching	right the raft if it inflates inverted	D014SA
4	3971	C	What weight is added when P-tank #4 in the DEEP DRILLER Sample Load Form #1 (Transit) is completely filled?	19.54 long tons	55.71 long tons	75.25 long tons	94.79 long tons	
4	3972	C	The external recognition light can be seem up to two miles and is shown as item number _____.	2	3	6	16	D014SA
4	3973	B	What are the additional vertical moments created when P-tank #4 in the DEEP DRILLER sample load form #1 (Transit) is completely filled?	2,252 foot-tons	9,413 foot-tons	11,665 foot-tons	13,917 foot-tons	
4	3974	D	In the illustration, the sea anchor is shown as item number_____.	7	13	15	14	D014SA
4	3975	B	While loaded as shown in the DEEP DRILLER Sample Load Form #4 (Drilling), all of the liquid mud is dumped. What is the new uncorrected KG?	52.09 feet	52.20 feet	53.23 feet	55.36 feet	
4	3976	C	In the illustration, which item number correctly identifies the ballast bags?	item #2	item #12	item #13	item #22	D014SA
4	3977	C	While loaded as shown in the DEEP DRILLER Sample Load Form #4 (Drilling), all of the liquid mud is dumped. What is the new longitudinal free surface correction?	1.63 feet	1.65 feet	1.67 feet	1.69 feet	
4	3979	A	In the illustration shown, where would you find the knife?	Item #2	item #4	item #12	item #16	D014SA
4	3980	B	In the illustration shown, the pressure relief valve is indicated as item number _____.	3	4	9	11	D014SA
4	3981	D	While loaded as shown in the DEEP DRILLER Sample Load Form #4 (Drilling), all of the liquid mud is dumped. What is the new position of the longitudinal center of buoyancy?	0.00 feet	1.69 feet	2.25 feet	2.29 feet	
4	3982	C	In the illustration shown, the external lifelines are shown as item number _____.	1	12	17	19	D014SA
4	3983	C	While loaded as shown in the DEEP DRILLER Sample Load Form #4 (Drilling), all of the liquid mud is dumped. What is the new height of the longitudinal metacenter?	61.24 feet	61.22 feet	61.20 feet	61.13 feet	
4	3984	B	As shown in the illustration, item #8 would be a(n)_____.	recognition light	rain water catchment tube assembly	pressure relief valve	floating sheath knife	D014SA
4	3985	A	While loaded as shown in the DEEP DRILLER Sample Load Form #4 (Drilling), all of the liquid mud is dumped. What is the new location of the longitudinal center of gravity?	1.71 feet	1.94 feet	2.09 feet	2.23 feet	
4	3986	D	A fire is discovered in the bow of your vessel while making way. The wind is from ahead at 35 knots. You should _____.	remain on course and hold speed	remain on course but slack the speed	change course to put the wind on either beam and increase speed	change course and put the stern to the wind	
4	3987	C	While loaded as shown in the DEEP DRILLER Sample Load Form #4 (Drilling), all of the liquid mud is dumped. What is the new longitudinal metacentric height?	5.02 feet	5.65 feet	7.33 feet	7.63 feet	

4	3988	A	In the illustration shown, the weak link is item number _____.	8	6	4	1	D015SA
4	3989	C	Inflatable liferafts on vessels on an international voyage must be able to carry at least _____.	2 persons	4 persons	6 persons	8 persons	
4	3990	C	What is a FALSE statement concerning the line throwing appliance on a vessel?	A drill on its use must be held once every three months.	The actual firing is at the discretion of the Master.	The auxiliary line must be of a light color.	The auxiliary line must be at least 1500 feet long.	
4	3991	D	The DEEP DRILLER is loaded as shown in Sample Load Form #4 (Drilling). What would be the new sum of transverse moments for the Stores & Supplies (Table 6) if paint weighing 3.48 tons is added to the paint locker?	592 foot-tons	296 foot-tons	148 foot-tons	000 foot-tons	
4	3992	C	How many B-II fire extinguishers must be in the machinery space of a 175-foot long fishing vessel propelled by engines with 3300 brake horsepower?	2	3	4	5	
4	3993	B	The DEEP DRILLER is loaded as shown in Sample Load Form #4 (Drilling). What would be the new sum of longitudinal moments for the Stores & Supplies (Table 6) if paint weighing 3.48 tons is added to the paint locker?	5,996 foot-tons	1,688 foot-tons	495 foot-tons	115 foot-tons	
4	3994	B	The color of the signal flare sent up by a submarine about to surface due to an emergency condition within the submarine is _____.	green	red	white	yellow	
4	3995	A	The DEEP DRILLER is loaded as shown in Sample Load Form #4 (Drilling). What would be the new sum of vertical moments for the Stores & Supplies if paint weighing 3.48 tons is added to the paint locker?	13,346 foot-tons	5,054 foot-tons	964 foot-tons	292 foot-tons	
4	3996	C	The SS AMERICAN MARINER has the following drafts: FWD 08'-11.5", AFT 15'-11.5". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.	2.85 feet	2.65 feet	2.36 feet	2.15 feet	ST-0151
4	3997	A	The DEEP DRILLER is loaded as shown in Sample Load Form #4 (Drilling). What would be the new sum of vertical moments for Fuel Oil if the entire contents of Tank 4P are transferred to Tank 4S?	3,493 foot-tons	1,797 foot-tons	1,748 foot-tons	100 foot-tons	
4	3999	D	Which item may be substituted for, in the fireman's outfit, on a cargo vessel?	fire ax	flashlight	rigid helmet	flame safety lamp	
4	4000	D	On a rigid liferaft (SOLAS B pack) which is equipped with all of the required equipment you may NOT find a _____.	bailer	sponge	whistle	fishing kit	
4	4001	C	The DEEP DRILLER is loaded as shown in Sample Load Form #4 (Drilling). What would be the new sum of longitudinal moments for Fuel Oil (Table 2) if the entire contents of Tank 4P are transferred to Tank 4S?	000 foot-tons	3,992 foot-tons	7,984 foot-tons	15,968 foot-tons	
4	4002	B	A combustible gas indicator will NOT operate correctly when the _____.	hydrocarbon content of the atmosphere is less than the U.E.L	atmosphere is deficient in oxygen	distance between the operator and the compartment to be tested is greater than 50 feet	All of the above	

4	4003	D	The DEEP DRILLER is loaded as shown in Sample Load Form #4 (Drilling). What would be the new sum of transverse moments for Fuel Oil if the entire contents of Tank 4P are transferred to Tank 4S?	995 foot-tons	16,918 foot-tons	17,713 foot-tons	34,381 foot-tons	
4	4004	B	To serve as a person in charge of transfer operations on board a self-propelled tank vessel, an individual must _____.	hold a valid officer's license for inspected vessels	hold a tankerman-PIC endorsement	be 30 years old	have a letter from the company stating his qualification	
4	4005	B	The DEEP DRILLER is loaded as shown in Sample Load Form #4 (Drilling). What would be the new sum of transverse free surface moments for Fuel Oil (Table 2) if the entire contents of Tank #4P are transferred to Tank #4S?	0 foot-tons	1,189 foot-tons	2,378 foot-tons	7,984 foot-tons	
4	4006	D	The SS AMERICAN MARINER arrived in port with drafts of: FWD 18'-06", AFT 20'-10". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.	FWD 18'-11", AFT 20'-02"	FWD 19'-01", AFT 20'-00"	FWD 19'-03", AFT 19'-10"	FWD 19'-05", AFT 19'-08"	ST-0152
4	4007	B	The DEEP DRILLER is loaded as shown in Sample Load Form #4 (Drilling). What would be the new sum of longitudinal free surface moments for Fuel Oil (Table 2) if the entire contents of Tank #4P are transferred to Tank #4S?	1,189 foot-tons	2,835 foot-tons	5,378 foot-tons	5,670 foot-tons	
4	4008	C	You are preparing to load fuel oil on a vessel of 300 gross tons constructed after June 30, 1974. Before loading, you must check that the fuel oil tank vents _____.	are not obstructed by on-deck cargo	have a fire extinguisher within the immediate area	have containment capacity for at least one half barrel	are opened and the flame screen replaced	
4	4009	C	You are preparing to load fuel oil on a vessel of 1,600 gross tons constructed after June 30, 1974. Before loading, you must check that the fuel oil tank vents _____.	are not obstructed by on-deck cargo	have a fire extinguisher within the immediate area	have containment capacity for at least one barrel	are opened and the flame screen replaced	
4	4010	C	A ship that, at any time, operates seaward of the outermost boundary of the territorial sea is required to prepare, submit, and maintain a(n) _____.	synthetic plastic discharge plan	oil discharge plan	shipboard oil pollution emergency plan	vapor recovery procedures plan	
4	4011	D	If you fail to notify the Coast Guard of an oil spill, you may be imprisoned up to _____.	1 year	2 years	3 years	5 years	
4	4012	A	The Federal Water Pollution Control Act requires the person in charge of a vessel to immediately notify the Coast Guard as soon as he knows of any oil discharge. Failure to notify the Coast Guard can lead to a monetary fine and imprisonment up to _____.	5 years	3 years	2 years	1 years	
4	4013	C	The DEEP DRILLER, at 60.0 feet draft in sea water, has VM = 974,441 foot-long tons, LM = 40,301 foot-long tons, TM = 3 foot-long tons, FSML = 30,572 foot-long tons, and FSMT = 18,732 foot-long tons. What is the KG corrected for longitudinal free surface effects?	53.78 feet	54.82 feet	55.47 feet	56.01 feet	
4	4014	D	Towing vessel fire protection regulations apply to vessels operated _____.	for restricted service such as making up or breaking up larger tows	for assistance towing	for pollution response	on the Western Rivers	

4	4015	B	The DEEP DRILLER, at 60.0 feet draft in sea water, has VM = 974,441 foot-long tons, LM = 40,301 foot-long tons, TM = 3 foot-long tons, FSML = 30,572 foot-long tons, and FSMT 18,732 foot-long tons. What is the KG corrected for transverse free surface effects?	53.78 feet	54.82 feet	55.47 feet	56.01 feet	
4	4016	D	Fire protection regulations apply to those towing vessels _____.	used only for pollution response	owned and operated by the US government	used only within a barge fleeting area	used only on inland waters	
4	4017	B	Towing vessel fire protection regulations define a "fixed fire-extinguishing system" to include all of the following EXCEPT a _____ .	carbon-dioxide system	halon system	manually-operated clean-agent system	manually-operated water-mist system	
4	4018	C	Towing vessel fire protection regulations distinguish between "new" and "existing" towing vessels. A "new" towing vessel is one that was _____.	built within the last three years	contracted for on or after August 27, 2002	contracted for on or after August 27, 2003	not previously owned	
4	4019	D	The regulations for a general alarm system on a towing vessel require all of the following EXCEPT that it _____ .	be capable of notifying persons in any accommodation, work space and the engine room	have a contact maker at the operating station	have a flashing red light in areas that have high background noise	be used instead of the public address system	
4	4020	D	The control panel of a fire detection system must have all of the following EXCEPT _____ .	a power-available light	an audible alarm to notify the crew and identify the origin of the fire	a means to silence audible alarms while maintaining visible alarm lights	a way to bypass the entire panel if it malfunctions	
4	4021	B	A towing vessel's fire detection system may be certified to comply with the Coast Guard's towing vessel fire protection regulations by _____ .	a Coast Guard inspector	a registered professional engineer	the owner or Master of the vessel	a licensed electrician	
4	4022	A	Which towing vessels are NOT required to have an internal communication system between the engine room and the operating station?	Twin-screw vessels that have operating station control for both engines	Vessels on limited routes	Fleet boats making or breaking tows	Vessels serving a single company or facility	
4	4023	D	Which devices may be used as part of an internal communication system on a towing vessel?	Sound-powered telephones	Portable radios	Either fixed or portable equipment	All of the above	
4	4024	D	In the towing vessel fire protection regulations, all of the following are fire detection requirements, EXCEPT that _____ .	the control panel must have labels for all switches and indicator lights	the detection system must be powered from two sources, with the switchover being either manual or automatic	there must be a circuit-fault detector test-switch in the control panel	none of the above	
4	4025	C	When is direct voice communication allowed in place of an internal communication system on a towing vessel?	When the vessel is less than 20 meters in length	When the vessel is ruled to be an "existing vessel"	When the controls at the operation station are within 3 meters (10 feet) of the engine room access	When it is easier to shout than use a radio or telephone	
4	4026	D	When do the towing vessel fire protection regulations allow a towing vessel to carry portable fuel systems on board?	When used for outboard engines	When permanently attached to portable equipment such as bilge and fire pumps	If the portable tanks used for portable equipment meet published safety standards	All of the above	

4	4027	A	The DEEP DRILLER, at 60.0 feet draft in sea water, has VM = 974,441 foot-long tons, LM = 40,301 foot-long tons, TM =3 foot-long tons, FSML = 30,572 foot-long tons, and FSMT = 18,732 foot-long tons. What is the metacentric height corrected for longitudinal free surface effects?	5.66 feet	6.31 feet	7.37 feet	55.47 feet	
4	4028	C	Fire protection regulations for towing vessels allow all of these types of fuel piping, EXCEPT _____ .	steel	aluminum in an aluminum-hulled vessel	schedule 80 fire resistant plastic pipe	nickel-copper, copper-nickel or annealed copper	
4	4029	D	Fire protection regulations for towing vessels allow you to use a nonmetallic flexible hose in fuel line installations under all of the following conditions EXCEPT when _____ .	used in lengths of not more than 30 inches	reinforced with wire braid	visible and easily accessible	fitted with Coast Guard approved garden hose fittings	
4	4030	A	Fire protection regulations for towing vessels require any fuel line subject to internal head pressure from fuel in the tank to _____ .	be fitted with a positive fuel shut-off valve located at the tank	have a shut-off valve at the top of the tank	have a gate valve easily accessible in the space where the tank is located	have a drain cock at the lowest point in the fuel line	
4	4031	C	The DEEP DRILLER, at 60.0 feet draft in sea water, has VM = 974,441 foot-long tons, and FSMT = 18,732 foot-long tons. What is the metacentric height corrected for transverse free surface effects?	5.66 feet	7.37 feet	8.02 feet	54.82 feet	
4	4032	D	Towing vessel fire protection regulations require that all fuel tank vent pipes comply with all of the following provisions EXCEPT that the vent _____ .	connects to the highest point of the tank	system discharges on a weather deck through a U-shaped 180 degree pipe bend	be fitted with a 30-by-30 corrosion resistant flame screen	must have a positive-acting shut-off valve to prevent water from entering the tank in heavy weather	
4	4033	C	The DEEP DRILLER, loaded as shown in the Sample Load Form #4 (Drilling) discharges a non-liquid load of 275.8 long tons from a position 130 feet above the keel, 40 feet forward of amidships, and 30 feet to port of the centerline. What is the new KG?	1.18 feet	51.80 feet	52.61 feet	55.79 feet	
4	4034	D	When a standard in the fire protection regulations for towing vessels is "incorporated by reference," it means that the _____.	Coast Guard accepts a commercial or military standard as part of a specific regulation	standard is readily available to the public	standard, and where it can be obtained or referred to, are listed in the Code of Federal Regulations	All of the above	
4	4035	C	The DEEP DRILLER, loaded as shown in the Sample Load Form #4 (Drilling), discharges a non-liquid load of 275.8 long tons from a position 130 feet above the keel, 40 feet forward of amidships, and 30 feet to port of the centerline. What is the new KGL?	52.60 feet	53.65 feet	54.32 feet	54.92 feet	
4	4036	B	Fire protection regulations for towing vessels require that all crew members participate in drills and receive instruction at least once a month. Who is responsible for ensuring that this takes place?	The Officer in Charge, Marine Inspection	The Master, or person in charge of the vessel	The vessel's owner or manager	The company's port captain or port engineer	
4	4037	B	The DEEP DRILLER, loaded as shown in the Sample Load Form #4 (Drilling), discharges a non-liquid load of 275.8 long tons from a position 130 feet above the keel, 40 feet forward of amidships, and 30 feet to port of the centerline. What is the new KGT?	52.60 feet	53.65 feet	54.31 feet	54.92 feet	

4	4038	A	Fire protection regulations for towing vessels require all crew members to know how to perform each of these tasks EXCEPT _____ .	start the mechanical ventilation system for the engine room	operate the fuel shut-off for the engine room	operate all fire extinguishing equipment aboard the vessel on board the vessel, including starting the fire pump	All of the above	
4	4039	B	The fire protection regulations for towing vessels require the crew to be trained for fire fighting with drills and safety orientations _____.	only if the vessel is greater than 100 gross tons	always, as stated in the regulations	but, only applies to towing vessels constructed after August 27, 2003	however, drills are not required for those holding a fire fighting certificate	
4	4040	D	Fire protection regulations for towing vessels require training in all of the following, EXCEPT _____ .	putting on a fireman's outfit, if the vessel is so equipped	donning a self-contained breathing apparatus, if the vessel is so equipped	activating the general alarm and reporting inoperative alarm systems and fire-detection systems	refilling and servicing all expended fire extinguishing equipment	
4	4041	C	The DEEP DRILLER, loaded as shown in the Sample Load Form #4 (Drilling), discharges a non-liquid load of 275.8 long tons from a position 130 feet above the keel, 40 feet forward of amidships, and 30 feet to port of the centerline. What is the new TCG?	-0.26 foot	-0.46 foot	0.46 foot	0.61 foot	
4	4042	B	How many B-II fire extinguishers must be in the machinery space of a 75-foot long fishing vessel propelled by engines with 1200 brake horsepower?	1	2	3	4	
4	4043	C	The DEEP DRILLER, loaded as shown in the Sample Load Form #4 (Drilling), discharges a non-liquid load of 275.8 long tons from a position 130 feet above the keel, 40 feet forward of amidships, and 30 feet to port of the centerline. What is the new GML?	5.98 feet	6.48 feet	6.84 feet	7.11 feet	
4	4044	A	Convection spreads a fire by _____.	heated gases flowing through ventilation systems	the transfer of heat across an unobstructed space	burning liquids flowing into another space	transmitting the heat of a fire through the ship's metal	
4	4045	D	The DEEP DRILLER, loaded as shown in the Sample Load Form #4 (Drilling), discharges a non-liquid load of 275.8 long tons from a position 130 feet above the keel, 40 feet forward of amidships, and 30 feet to port of the centerline. What is the new GMT?	5.98 feet	6.84 feet	7.11 feet	9.24 feet	
4	4046	C	Fire protection regulations for towing vessels require that drills be conducted on board the vessel as if there were an actual emergency. Drills include all of the following, EXCEPT _____ .	testing all alarm and detection systems	breaking out and using the vessel's emergency equipment	participation by selected crew members	one person putting on protective clothing, if the vessel is so equipped	
4	4047	C	The DEEP DRILLER, loaded as shown in the Sample Load Form #4 (Drilling), discharges a non-liquid load of 275.8 long tons from a position 130 feet above the centerline. What is the improvement in KGT?	0.68 foot	0.99 foot	1.16 feet	2.07 feet	
4	4048	C	Fire protection and manning regulations for towing vessels state that the Master or person in charge must ensure that all crew members who have not participated in the drills or received the safety orientation _____ .	receive a safety orientation or view a videotape before the vessel gets underway	view a videotape on safety procedures within 48 hours of reporting for duty	receive a safety orientation within 24 hours of reporting for duty	none of the above	

4	4049	B	The owner or Master of a towing vessel shall ensure that all tests and inspections of gear take place and are logged _____ .	on each watch, immediately before being relieved	before embarking on a voyage of more than 24 hours	daily, at 1200 local zone time	weekly, before 0000 Sunday	
4	4050	A	The owner or Master of a towing vessel shall ensure that all tests and inspections of gear take place and are logged _____ .	when a new Master assumes command	daily, at 0800 local zone time	weekly, before 2400 Saturday	immediately after assuming the watch	
4	4051	C	The DEEP DRILLER, loaded as shown in the Sample Load Form #4 (Drilling), discharges a non-liquid load of 275.8 long tons from a position 130 feet above the keel, 40 feet forward of amidships, and 30 feet to port of the centerline. What is the resulting list angle?	2.11 degrees to port	1.43 degrees to starboard	2.87 degrees to starboard	3.02 degrees to starboard	
4	4052	B	The test of a towing vessel's steering gear control system includes each item EXCEPT _____ .	a test from the alternative power supply, if installed	timing the movement of the rudder from hard over to hard over	verification that the rudder angle indicator shows the actual position of the rudder(s)	visual inspection of the steering linkage	
4	4053	C	The DEEP DRILLER, loaded as shown in the Sample Load Form #4 (Drilling), discharges a non-liquid load of 275.8 long tons from a position 130 feet above the keel, 40 feet forward of amidships, and 30 feet to port of the centerline. What is the resulting trim angle?	3.49 degrees to the stern	4.69 degrees to the stern	5.18 degrees to the stern	5.68 degrees to the stern	
4	4054	D	Which navigational equipment is required to be tested and logged before a towing vessel embarks on a voyage of more than 24 hours?	Compass and/or swing meter	Radar(s) and VHF radio(s)	LORAN-C and/or GPS receiver(s)	All required navigational equipment, without exception	
4	4055	D	In the DEEP DRILLER, VCG is obtained from the sum of the vertical moments by _____.	adding displacement	subtracting displacement	multiplying by displacement	dividing by displacement	
4	4056	D	Which installed equipment must be tested and logged when a new Master assumes command?	Internal communications, including sound-powered telephones	Navigational lights and search lights	Vessel control alarms	All of the above must be tested	
4	4057	D	In the DEEP DRILLER, LCG is obtained from the sum of the longitudinal moments by _____.	adding the free surface correction	subtracting the free surface correction	multiplying by displacement	dividing by displacement	
4	4058	C	When the owner or Master inspects his/her towing vessel before embarking on a voyage of more than 24 hours, he/she must check all terminal gear EXCEPT _____ .	the connection of the bridle and towing pendant	chafing gear	quick release towing hook and control system, to see that it operates properly	the winch brake, if installed	
4	4059	D	What must the owner or Master do if any of the towing vessel's required navigational safety equipment fails during a voyage?	Repair it at the earliest practicable time	Enter its failure in the log or other on board record	Consider the state of the equipment in deciding whether it is safe for the vessel to proceed	All of the above	
4	4060	B	After an item of required safety equipment on a towing vessel fails, the owner or Master must consider all of these factors before continuing the voyage, EXCEPT the _____ .	weather conditions, including visibility	estimated time of arrival promised to the customer	safety of the vessel, considering the other traffic in the area	dictates of good seamanship	
4	4061	D	In the DEEP DRILLER, TCG is obtained from the sum of the transverse moments by _____.	adding the free surface correction	subtracting the free surface correction	multiplying by displacement	dividing by displacement	

4	4062	C	The owner or Master of a towing vessel that is operating within a Vessel Traffic Service (VTS) area must report all of the following to VTS as soon as practicable EXCEPT _____ .	any malfunction of propulsion machinery, steering gear, radar, gyrocompass or depth-sounder, if installed	shortage of personnel, lack of charts, maps or other required publications	the type of license he/she holds and its serial number	any characteristics of the vessel that affect its maneuverability	
4	4063	D	In the DEEP DRILLER, the longitudinal free surface correction (FSCL) is obtained from the total of the longitudinal free surface moments (FSML) by _____.	adding the LCG	subtracting the LCG	multiplying by displacement	dividing by displacement	
4	4064	A	If you are the Master of a towing vessel whose only working radar no longer functions, what must you do?	Notify the Captain of the Port (COTP) if you cannot repair it within 96 hours.	Notify the Officer in Charge of Marine Inspection (OCMI) if you cannot repair it within 48 hours.	Moor the vessel until it is repaired.	Anchor the vessel until it is repaired.	
4	4065	D	In the DEEP DRILLER, the transverse free surface correction (FSCT) is obtained from the total of transverse free surface moments (FSMT) by _____.	adding the TCG	subtracting the TCG	multiplying by displacement	dividing by displacement	
4	4066	B	The most important concern in treating a person with extensive burns is _____.	reducing disfigurement	preventing infection	cooling with ice water	reducing swelling	
4	4067	D	The DEEP DRILLER is operating as shown in Sample Load Form #4 (Drilling). Assume ballast added or discharged to remain at a constant draft is at a VCG of 10 feet. How much non-liquid load would have to be removed from an average height of 130 feet above the keel to meet the maximum allowable KG at a draft of 60 feet for winds greater than 70 knots?	373 long tons	457 long tons	484 long tons	524 long tons	
4	4068	D	On board an OSV, the key to the most rapid and effective response to a man overboard situation is _____.	switching to hydraulic steering	a dedicated crew	good equipment	good communication	
4	4069	C	In the illustration, the sea anchor is number _____.	1	12	14	18	D014SA
4	4070	A	Motor-propelled lifeboats are required to be fitted with which of the following?	Compartments for the storage of canned drinking water	Ballast tanks to prevent the boat from capsizing	An air starter on the diesel engine	Auxiliary mechanical propulsion (Fleming gear)	
4	4071	A	The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). What are the new LM (longitudinal moments) if the entire contents of Salt Water Ballast Tanks 1P and 1S are discharged?	5,191 ft-tons	13,414 ft-tons	31,992 ft-tons	69,175 ft-tons	
4	4073	B	The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). What are the new TM (transverse moments) if the entire contents of Salt Water Ballast Tanks 1P and 1S are discharged?	-3,436 ft-tons	3,446 ft-tons	3,594 ft-tons	22,682 ft-tons	
4	4074	C	The SS AMERICAN MARINER has the following drafts: FWD 08'-11.5", AFT 15'-11.5". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.	2.20 feet	2.00 feet	1.80 feet	1.65 feet	ST-0153
4	4075	B	The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). What are the new vertical moments if the entire contents of Salt Water Ballast Tanks 1P and 1S are discharged?	12,662 ft-tons	794,346 ft-tons	795,025 ft-tons	795,704 ft-tons	

4	4076	D	In the illustration shown, the equipment bags are indicated by item number _____.	12	15	17	19	D014SA
4	4077	B	The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). What is the new longitudinal free surface correction (FSCL) if the entire contents of Salt Water Ballast Tanks 1P and 1S are discharged?	1.06 feet	1.09 feet	3.30 feet	3.38 feet	
4	4078	D	When shifting to a course where the wind comes more from astern, easing the mainsheet will _____.	bring the boom more fore and aft	decrease the force needed to haul on the mainsheet	bring the head of the sail down from the top of the mast	allow the sail to catch more wind	
4	4079	A	Your cargo vessel's Certification of Inspection expires 30 April 2002. One of your inflatable liferafts was last serviced in January 2002. The raft must be reinspected no later than _____.	Jan-03	Jun-03	Apr-04	Jan-07	
4	4080	D	On a vessel of 12,500 tons displacement, compute the reduction in metacentric height due to free surface in a hold having free water on the tank top. The hold is 35 feet long and 50 feet wide. The reduction in metacentric height is _____.	.14 ft	.45 ft	.55 ft	.83 ft	
4	4081	A	Visual inspections of survival craft on offshore drilling units, to ensure operational readiness, must be conducted at least once a _____.	week	month	quarter	year	
4	4082	A	A towing vessel is NOT required to be fitted with radar if it is _____ .	used solely for assistance towing	under 65 feet in length	used exclusively on the Western Rivers	pushing ahead	
4	4083	D	The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). What is the new height of the center of gravity corrected for longitudinal free surface effects if the entire contents of Salt Water Ballast Tanks 1P and 1S are discharged?	67.04 feet	68.02 feet	68.72 feet	69.21 feet	
4	4084	B	A towing vessel is NOT required to be fitted with radar if it is _____ .	used occasionally to assist vessels in distress	used solely for pollution response	less than 49 feet in length	towing alongside	
4	4085	D	The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). What is the new height of the center of gravity corrected for transverse free surface effects if the entire contents of Salt Water Ballast Tanks 1P and 1S are discharged?	65.95 feet	66.85 feet	67.66 feet	68.59 feet	
4	4086	C	What signal flag is the "Pilot Flag" ("I have a pilot on board")?	"P"	"C"	"H"	"Z"	
4	4087	D	The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (transit). What is the new metacentric height corrected for transverse free surface effects if the entire contents of Salt Water Ballast Tanks 1P and 1S are discharged? (Use KMT = 375.38 feet)	375.38 feet	345.23 feet	319.66 feet	306.79 feet	
4	4088	D	Which towing vessel(s) is/are exempt from carrying radar?	A vessel used solely in a limited area, such as a barge fleeting area.	A vessel exempted, in writing, by the Captain of the Port.	A vessel used solely for pollution response or assistance towing.	All of the above	

4	4089	B	Which piece of navigational safety equipment is NOT required on towing vessels over 12 meters in length, provided that the vessel remains within the navigable waters of the U.S.?	VHF-FM radio(s)	LORAN-C or GPS receiver	Charts or maps of the areas to be transited	Searchlight	
4	4090	B	Which instrument may a towing vessel, engaged in towing exclusively on the Western Rivers, use in place of a magnetic compass?	Gyrocompass	Illuminated Swing Meter	LORAN-C Receiver	GPS Receiver	
4	4091	B	The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). What is the new metacentric height corrected for longitudinal free surface effects if the entire contents of salt water ballast 1anks 1P and 1S are discharged? (Use KML = 348.58)	261.11 feet	279.37 feet	283.37 feet	301.12 feet	
4	4092	C	On which route is a towing vessel over 39.4 feet in length NOT required to carry an echo-sounding device?	Great Lakes	Inland Waters, other than the Western Rivers	Western Rivers	Coastwise Routes	
4	4093	D	Towing vessels of more than 39.4 feet in length must carry charts or maps _____ .	of the area to be navigated	with enough detail to make safe navigation possible	of the current edition or currently corrected edition	All of the above	
4	4094	B	The SS AMERICAN MARINER arrived in port with drafts of: FWD 19'-10.5", AFT 22'-11.6". Cargo was loaded and discharged as shown. Use sheet 2 in the white pages of The Stability Data Reference Book to determine the final drafts.	FWD 20'-01.4", AFT 23'-00.6"	FWD 19'-07.6", AFT 22'-10.4"	FWD 19'-09.3", AFT 22'-08.7"	FWD 19'-11.7", AFT 23'-02.5"	ST-0154
4	4095	D	The DEEP DRILLER is loaded as shown in the Sample Load Form #2 (Ballast to Survival). What is the new longitudinal location of the center of buoyancy if all the bulk materials are discharged?	2.34 feet	2.48 feet	2.50 feet	2.53 feet	
4	4096	D	Which statement(s) is/are TRUE concerning radio equipment on towing vessels of 26 feet or more in length?	The vessel must have a ship-radio-station license issued by the FCC.	Each radio operator must hold an FCC-issued restricted operator's license, or higher.	Maintain a continuous listening watch on VHF channel 16 and the bridge-to-bridge channel.	All of the above.	
4	4097	C	The DEEP DRILLER is loaded as shown in the Sample Load Form #2 (Ballasting to Survival). What is the new height of the longitudinal metacenter if all the bulk materials are discharged?	61.34 feet	62.13 feet	62.35 feet	64.00 feet	
4	4098	D	Which publication(s) must a towing vessel of 12 meters or more in length carry when operating on US waters other than the Western Rivers?	US Coast Pilot(s)	Tide Tables and Tidal Current Tables	Notice to Mariners	All of the above	
4	4101	C	The DEEP DRILLER is loaded as shown in the Sample Load Form #2 (Ballasting to Survival). What is the new height of the transverse metacenter if all the bulk materials are discharged?	63.14 feet	64.05 feet	64.30 feet	66.09 feet	
4	4102	A	The center of the underwater volume of a floating vessel is the _____.	center of buoyancy	center of flotation	uncorrected height of the center of gravity of the vessel	center of gravity of the vessel corrected for free surface effects	

4	4103	A	The DEEP DRILLER is loaded as shown in the Sample Load Form #2 (Ballasting to Survival). What is the shift in TCG if 100.76 long tons of ballast are added to Ballast Tank #8S to replace the discharge of all bulk materials?	0.01 foot starboard	0.18 foot starboard	0.27 foot starboard	0.39 foot starboard	
4	4104	B	The inspection of small passenger vessels of 60 feet in length carrying more than twelve persons on an international voyage is required by the Coast Guard _____. (small passenger vessel regulations)	once every 6 months	once every year	once every 2 years with a minimum of one reinspection during that period	once every 3 years with a minimum of two reinspections during that period	
4	4105	A	The DEEP DRILLER is loaded as shown in the Sample Load Form #2 (Ballasting to Survival). What is the shift in LCG if 100.76 long tons of ballast are added to Ballast Tank #8S to replace the discharge of all bulk materials?	0.06 foot aft	0.14 foot aft	0.27 foot aft	0.40 foot aft	
4	4106	D	In the event of a fire, the doors to a stair tower must be closed to prevent the spread of fire by _____.	conduction	ventilation	radiation	convection	
4	4107	D	The DEEP DRILLER is loaded as shown in the Sample Load Form #2 (Ballasting to Survival). What is the VCG of the added liquid if 100.76 long tons of ballast are added to Ballast Tank #8S?	1.35 feet	6.95 feet	8.30 feet	15.26 feet	
4	4108	D	A Certificate of Inspection for vessels of less than 100 gross tons carrying more than twelve passengers on an international voyage will be issued for a period of _____. (small passenger vessel regulations)	four years	three years	two years	one year	
4	4109	D	As Master of an inspected small passenger vessel, you have a question regarding a proposed modification to a watertight bulkhead. In which subchapter of title 46 of the Code of Federal Regulations would you find the answer?	Subchapter B	Subchapter D	Subchapter F	Subchapter T	
4	4110	B	As Master of an inspected small passenger vessel, you have a question regarding a proposed modification to a watertight bulkhead. In which subchapter of title 46 of the Code of Federal Regulations would you find the answer?	Subchapter W	Subchapter T	Subchapter I	Subchapter E	
4	4111	C	The DEEP DRILLER is loaded as shown in the Sample Load Form #2 (Ballasting to Survival). What is the metacentric height corrected for longitudinal free surface effects if 100.76 long tons of ballast are added to Ballast Tank #8S to replace the discharge of all bulk materials?	6.46 feet	7.09 feet	7.72 feet	8.39 feet	
4	4112	D	A fire is discovered in the forepeak of a vessel at sea. The wind is from ahead at 35 knots. You should _____.	remain on course and hold speed	remain on course but slack the speed	change course to put the wind on either beam and increase speed	change course and put the stern to the wind	
4	4113	D	The DEEP DRILLER is loaded as shown in the Sample Load Form #2 (Ballasting to Survival). What is the metacentric height corrected for transverse free surface effects if 100.76 long tons of ballast are added to Ballast Tank #8S to replace the discharge of all bulk materials?	10.42 feet	10.87 feet	11.50 feet	12.13 feet	
4	4114	B	The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the LCG-FP of the liquid load.	229.8 ft	236.7 ft	244.6 ft	251.5 ft	ST-0155

4	4115	D	The inspection of a 50 ft. vessel of 65 gross tons carrying more than twelve passengers on an international voyage is required by the Coast Guard once in every _____. (small passenger vessel regulations)	four years with a minimum of three reinspections during the four year period	three years with a minimum of two reinspections during the three year period	two years	year	
4	4116	C	As Master of an inspected small passenger vessel, you have a question regarding a proposed modification to a watertight bulkhead. In which subchapter of title 46 of the Code of Federal Regulations will you find the answer?	Subchapter D	Subchapter G	Subchapter T	Subchapter U	
4	4117	A	As Master of an inspected small passenger vessel, you have a question regarding a proposed modification to a watertight bulkhead. In which subchapter of title 46 of the Code of Federal Regulations would you find the answer?	Subchapter T	Subchapter Q	Subchapter F	Subchapter C	
4	4119	C	A large fire, involving class "A" material, has developed in the ship's galley. In combating this fire, you should _____.	keep the galley door closed until all the class "A" material has been consumed by the fire	have a hose team cool the galley door, then open the door and extinguish the fire using a type B-II extinguisher	cool adjoining horizontal and vertical surfaces before opening the galley door	advance the hose team into the galley without any preparatory action	
4	4120	B	Which of the following would be of immediate concern after discovering a large fire in the ship's galley?	An adjacent storeroom, containing spare parts	A storeroom directly above, containing combustible fluids	An adjacent storeroom, containing mattresses and linen	An adjacent storeroom, marked "Stewards Stores"	
4	4121	D	The DEEP DRILLER is observed to be level at a draft of 60.0 feet. At the same time, the calculated load form shows the displacement to be 17,845 long tons, total longitudinal moments 51,466 foot-tons, and total transverse moments -10,000 foot-tons. What is the weight of the missing load?	220.7 long tons	235.3 long tons	253.7 long tons	272.7 long tons	
4	4122	B	Under normal firefighting conditions, approximately how far could a straight stream of water reach when the hose pressure is 100 PSI?	50 feet	100 feet	150 feet	200 feet	
4	4123	D	The DEEP DRILLER is observed to be level at a draft of 60.0 feet. At the same time, the calculated load form shows the displacement to be 17,845 long tons, total longitudinal moments 51,466 foot-tons, and total transverse moments -10,000 foot-tons. What is the longitudinal location of the missing load?	40.45 feet	0.62 feet	-0.61 feet	-40.57 feet	
4	4124	A	Approximately how far could a straight stream of water reach if the fire hose pressure is reduced to 60 PSI?	50 feet	100 feet	150 feet	200 feet	
4	4125	D	The DEEP DRILLER is observed to be level at a draft of 60.0 feet. At the same time, the calculated load form shows the displacement to be 17,845 long tons, total longitudinal moment 51,466 foot-kips, and total transverse moments -10,000 foot-kips. What is the transverse location of the missing load?	36.67 feet	0.56 foot	-0.55 foot	-36.67 feet	
4	4126	D	Using sheet 25 in the Guidance Manual for Loading M.V. Grand Haven, determine the amount of ballast required in tank No. 5 (P & S) to maintain drafts of 17'-00" forward and 22'-06" aft for a vessel loaded with grain which has a test weight of 33 lbs.	1010 tons each	1025 tons each	1045 tons each	1070 tons each	

4	4127	B	While loaded as shown in the DEEP DRILLER Sample Load Form #3 (Preparing to Drill), all of the casing is discharged. What is the change in LCG?	0.45 foot	-0.45 foot	-1.78 feet	-2.68 feet	
4	4129	C	Under normal operating conditions, the rudder is hydraulically locked unless _____.	the manual trick wheel is engaged for steering	the variable stroke pump is off stroke	a rudder order is given by the control system	an electric power system failure occurs at the steering gear	
4	4131	D	While loaded as shown in the DEEP DRILLER Sample Load Form #4 (Drilling), a severe storm threatens. What is the improvement in KGL if all the mud is dumped?	4.59 feet	3.27 feet	2.37 feet	1.60 feet	
4	4132	D	When the helm is turned on the navigation bridge, which of the listed actions will be the FIRST response in the steering room on a ship equipped with an electro-hydraulic steering gear?	The pumps go to full stroke.	The six-way valve aligns itself with the running pump.	Both port and starboard cables are energized.	The synchronous receiver turns, duplicating the helm motion.	
4	4133	A	The DEEP DRILLER is loaded as shown in the Sample Load Form #3 (Preparing to Drill). According to the deck load graph, how much additional deck load could be added to the unit?	526.87 long tons	276.87 long tons	241.50 long tons	189.51 long tons	
4	4134	B	Dual electro-hydraulic steering units usually operate _____.	with both pumps on line at the same time	with one pump on standby	with the follow-up gear disconnected	only when the rudder is moved amidships	
4	4135	B	The DEEP DRILLER is loaded as shown in the Sample Load Form #4 (Drilling). According to the deck load graph, how much additional deck load could be added on the unit?	561.87 long tons	461.87 long tons	281.34 long tons	192.59 long tons	
4	4136	C	If one hydraulic pump of an electro-hydraulic steering unit fails, the vessel's steering can be initially and best maintained by using the _____.	trick wheel	accumulator	standby pump	telemotor	
4	4137	A	The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). According to the deck load graph, how much additional deck load could be added on the unit?	435.59 long tons	321.59 long tons	281.59 long tons	192.59 long tons	
4	4138	B	Multiple fire pumps may be used for other purposes provided that one pump is _____.	on line to the fire main	kept available for use on the fire main at all times	capable of being connected to the fire main	rated at or above 125 psi	
4	4139	D	Rotation of the steering wheel on the navigation bridge initiates oil pressure being applied to the steering gear rams by _____.	regulating the oil flow with the six-way valve	moving the automatic differential valve	moving the follow up indicator which regulates the six-way valve	varying the angle of a tilting box or eccentricity of a floating ring	
4	4140	B	In an electro-hydraulic steering system, rudder movement is maintained in close synchronization with the steering wheel position by means of the _____.	trick wheel	follow-up control	six-way valve	Rapson slide	
4	4141	B	How much additional solid weight could be loaded at a VCG of 189.7 feet on the DEEP DRILLER while loaded as shown in the Sample Load Form #4 (Drilling)? Assume ballast added or discharged to maintain draft is done so at 15 feet above the baseline.	279.2 long tons	314.2 long tons	404.2 long tons	461.9 long tons	
4	4142	A	You are underway at sea when a fire is reported in the forward part of the vessel. The wind is from dead ahead at 20 knots. You should _____.	change course and put the stern to the wind	change course to put the wind on either beam and increase speed	remain on course and hold speed	remain on course but decrease speed	

4	4143	A	While loaded as shown in the Sample Load Form #4 (Drilling), all of the liquid mud is dumped. What would be the new draft?	56.69 feet	58.14 feet	59.14 feet	63.31 feet	
4	4144	D	Which of the following statements is FALSE concerning the proper procedure in handling a fire hose?	A 1½ inch hose should be deployed with a minimum of a nozzleman and hoseman.	The nozzleman should always hold the nozzle with one hand on top, to prevent kickback.	Back-up hosemen should be positioned wherever the hose makes a significant turn.	The fire hose should be partially charged before deploying it from the fire station.	
4	4145	C	Which of the following statements is FALSE concerning the proper procedure in handling a fire hose?	A 1½ inch hose should be deployed with a minimum of a nozzleman and hoseman.	Back-up hosemen should be placed wherever the hose makes a significant turn.	Use of a spanner wrench when attaching nozzles or additional lengths of hose is always critical.	The nozzleman should always hold the nozzle with one hand on top, to prevent kickback.	
4	4146	B	The follow-up gear on an electro-hydraulic steering gear _____.	relieves excessive fluid pressure	takes the pump off stroke when the desired rudder angle is attained	synchronizes wheel position with the rudder position	returns the rudder to mid-position when the wheel is released	
4	4147	C	According to Coast Guard Regulations (46 CFR), which of the following statements is correct regarding the steering gear on a vessel contracted for after June 9, 1995?	Hydraulic structural rudder stops are mandatory.	On hydraulic type steering gears, a suitable arrangement of check valves in the main piping system may be considered as a means of steadying the rudder.	A separate auxiliary means of steering is not required where the main gear is of the dual power hydraulic type, having two independent pumps and connections.	All of the above.	
4	4148	A	The action necessary to transfer the steering control from the wheelhouse to local control in order to use the steering gear room trick wheel, is to _____.	align the trick wheel to the rudder angle position	set the six-way control valve in the trick wheel position	open the power transfer switch before engaging the trick wheel	always place the rudder in the midship position to engage the trick wheel	
4	4149	A	Rudder position is shown on the bridge by the _____.	rudder angle indicator	follow-up gear	telemotor position	Rapson slide indicator	
4	4150	A	In an emergency, the electro-hydraulic steering units can be directly controlled by the _____.	trick wheel	rapson slide	follow-up gear	receiver unit	
4	4151	C	The DEEP DRILLER is loaded as shown in the Sample Load Form #3 (Preparing to Drill). If the liquid mud in mud pit #1 (see table 8) is dumped, what would be the new draft?	60 feet 9.6 inches	59 feet 9.3 inches	59 feet 2.7 inches	56 feet 10.9 inches	
4	4152	C	Coast Guard Regulations require that OSV's under 100 GT must have a steering system that is capable of moving the rudder _____.	by a required auxiliary steering system under emergency conditions when duplicated main steering power systems are provided	at one-half the maximum astern speed without damage	from 35° on one side to 30° on the other side, in no more than 28 seconds, while making maximum headway	from 15° on one side to 15° on the other side, in 30 seconds at 7 knots, or one-half the maximum speed	
4	4153	D	The DEEP DRILLER is loaded as shown in the Sample Load Form #3 (Preparing to Drill). If all the liquid mud (see table 8) is dumped, what would be the new draft?	60 feet 9.6 inches	59 feet 2.7 inches	57 feet 11.5 inches	56 feet 10.9 inches	

4	4154	D	Coast Guard Regulations require that prior to departure on a three-day voyage, the steering gear, whistle, and communications system between the bridge and engine room must be tested prior to departure no earlier than _____.	1 hour	4 hours	8 hours	12 hours	
4	4155	C	The DEEP DRILLER is loaded as shown in the sample Load Form #3 (Preparing to Drill). If the liquid mud in mud pit #4 (see table 8) is dumped, what would be the new uncorrected height of the center of gravity?	50.72 feet	51.25 feet	51.87 feet	53.22 feet	
4	4157	B	The DEEP DRILLER is loaded as shown in the Sample Load Form #3 (Preparing to Drill). If the liquid mud in mud pit #4 (see table 8) is dumped, what would be the new height of the center of gravity corrected for longitudinal free surface effects?	50.29 feet	53.55 feet	53.92 feet	54.24 feet	
4	4158	B	Your vessel's existing draft is FWD 19'-02", AFT 20'-10". Using the Guidance Manual for Loading M.V. GRAND HAVEN, determine the new draft if 170 long tons are discharged from No. 8 hatch.	FWD 19'-00.4", AFT 20'-08.6"	FWD 18'-10.8", AFT 20'-10.4"	FWD 19'-03.4", AFT 20'-05.6"	FWD 19'-05.4", AFT 20'-03.4"	
4	4159	A	A yellow signal, floating in the air from a parachute, about 300 feet above the water, indicates that a submarine _____.	will be coming to periscope depth	will be coming to the surface	is on the bottom in distress	is in distress and will try to surface	
4	4160	B	Your vessel's drafts are: FWD 18'-09", AFT 20'-05"; and the KG is 23.8 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 30° inclination.	0.9 feet	2.1 feet	4.0 feet	5.9 feet	
4	4161	C	The DEEP DRILLER is loaded as shown in Sample Load Form #3 (Preparing to Drill). If the liquid mud in mud pit #4 (see table 8) is dumped, what would be the new height of the center of gravity corrected for transverse free surface effects?	51.50 feet	52.54 feet	52.88 feet	53.54 feet	
4	4164	A	The color of the signal flares sent up by a submarine about to surface from periscope depth is _____.	white	yellow	red	green	
4	4165	D	The DEEP DRILLER is loaded as shown in the Sample Load Form #3 (Preparing to Drill). If all the liquid mud (see table 8) is dumped, what would be the new height of the transverse metacenter?	61.19 feet	62.80 feet	62.99 feet	62.94 feet	
4	4167	A	The DEEP DRILLER is loaded as shown in the Sample Load form #3 (Preparing to Drill). If all the liquid mud (see table 8) is dumped, what would be the new metacentric height corrected for transverse free surface effects?	11.26 feet	10.07 feet	9.67 feet	8.30 feet	
4	4168	B	The color of the signal flares sent up by a submarine surfacing from periscope depth is _____.	green	white	yellow	red	
4	4169	C	The color of the signal flares sent up by a submarine about to surface from periscope depth is _____.	green	yellow	white	red	
4	4170	D	The color of the signal flares sent up by a submarine surfacing from periscope depth is _____.	yellow	red	green	white	

4	4171	C	The DEEP DRILLER is loaded as shown in the Sample Load form #3 (Preparing to Drill). If the liquid mud in mud pit #4 (see table 8) is dumped, what would be the new metacentric height corrected for longitudinal free surface effects?	10.07 feet	8.80 feet	7.59 feet	5.45 feet	
4	4173	B	The DEEP DRILLER, loaded as shown in the Sample Load Form #4 (Drilling), discharges all the cement in the P-Tanks. See Table 7. What is the change in KG?	0.24 foot downward	0.49 foot downward	0.88 foot downward	1.02 feet downward	
4	4174	C	Each EPIRB shall be tested using the integrated test circuit and output indicator every _____.	week	two weeks	month	quarter	
4	4175	B	How much non-liquid deck load can the DEEP DRILLER, loaded as shown in the sample Load Form #4 (Drilling), accept if the weight is placed at a VCG of 130 feet? Ballast added or discharged to maintain draft at 60 feet is done so at 10 feet.	461.9 long tons	457.5 long tons	388.8 long tons	323.1 long tons	
4	4177	A	The DEEP DRILLER is loaded as shown in the Sample Load Form #4 (Drilling). What would be the weight of the mud in pit #4 if the sounding level changed to 6 feet and the mud weight decreased from 16 to 14 pounds/gallon?	70.00 long tons	84.17 long tons	93.34 long tons	106.67 long tons	
4	4178	D	The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the LCG-FP of the liquid load.	229.8 ft	234.3 ft	244.6 ft	253.5 ft	ST-0156
4	4181	D	The DEEP DRILLER is operating at a draft of 60 feet. There is 11.5 feet of drill water in each of the drill water tanks (5P and 5S). What would be the improvement in KGL if 5S is filled from 5P?	0.56 foot	0.49 foot	0.18 foot	0.08 foot	
4	4183	B	What is the shift in KG if all the liquid mud is dumped when the DEEP DRILLER is loaded as shown in the Sample Load #3 (Preparing to Drill)?	1.26 feet downward	1.51 feet downward	2.77 feet downward	1.47 feet downward	
4	4187	D	The DEEP DRILLER is drilling at 60 feet draft at a corrected KG of 54.0 feet. Ballast added or discharged to remain at a constant draft is at a VCG of 10 feet. How much non-liquid load would have to be removed from an average height of 130 feet above the keel to meet the maximum allowable KG at a draft of 60 feet for winds greater than 70 knots?	1283 long tons	817 long tons	679 long tons	302 long tons	
4	4188	A	You are the operator of a 295 GRT uninspected towing vessel. Which type of fire extinguishing system is required on your vessel, if its construction was contracted for before August 27, 2003? (Uninspected Vessel Regulations)	Type B-V semi-portable OR a fixed fire-extinguishing system	Type B-IV semi-portable OR a fixed fire-extinguishing system	Type B-III semi-portable AND a fixed fire-extinguishing system	Fixed CO2, AND another fixed fire-extinguishing system	
4	4189	B	You are loading in the winter in Albany, N.Y., for a voyage to a port governed by the tropical load line mark. Which of the following statements is TRUE? (Hydrometer reading in Albany is 1.000)	You may not exceed the winter load line mark when you finish loading except for the burnout to sea.	The freshwater allowance and burnout to sea may be subtracted from the required freeboard in Albany.	You may calculate the burnout necessary to reach the tropical zone and load extra cargo to compensate.	You may load to the winter mark less the fresh water allowance if you will be at the tropical mark upon arrival in the tropical zone.	

4	4190	D	You are loading at port A, governed by the summer load line mark, for a voyage to port B, governed by the winter mark. The fresh water allowance is 10", and the hydrometer reads 1.020. Which statement is TRUE?	You may not load beyond the winter mark except for 2 inches brackish water allowance.	You may not load beyond the summer mark and must be at the winter mark upon arrival at port B.	You may not load beyond the summer mark plus 8 inches brackish water allowance.	You may load to the summer mark plus 2 inches if you will be at the winter mark when entering the winter zone.	
4	4191	C	The DEEP DRILLER is planning to operate while loaded as shown in the Sample Load Form #3 (Preparing to Drill). What is the margin between KGT and maximum allowable KG?	0.66 foot	2.58 feet	5.24 feet	7.87 feet	
4	4192	D	Alterations or repairs on inspected small passenger vessels must be done _____.	under the direction of the Officer in Charge, Marine Inspection	in accordance with the regulations of Subchapter "S" (Subdivision and Stability)	in accordance with regulations in effect when the vessel was contracted for, as long as the repairs are minor	All of the above	
4	4193	D	While going on location in 250 feet water depth when the pitch angle of the COASTAL DRILLER is 2 degrees, the single amplitude pitch period should be longer than _____.	0.2 second	0.4 second	4.9 seconds	13.9 seconds	
4	4194	B	You are loading in a port governed by the tropical load line mark for a voyage to a port governed by the winter mark. The fresh water allowance is 5 inches, and the hydrometer reads 1.005. Which statement is TRUE?	You may load to the tropical mark plus 1 inch brackish water allowance.	You must load so that each zone mark will not be submerged upon entering the zone.	Your draft must not exceed the winter mark plus the fresh water allowance upon arrival off the discharge port.	You may only load to the winter mark plus a brackish water allowance of 4 inches.	
4	4195	D	The motions of the COASTAL DRILLER during a normal transit when wind speeds are less than 70 knots are limited by _____.	stability	deck edge immersion	wave heights	leg strength	
4	4196	C	You are bound from port A governed by the summer load line mark to port B also governed by the summer mark. The great circle track will take you into a zone governed by the winter mark. Which statement is TRUE?	You cannot load beyond the summer mark at port A and must be at the winter mark upon arrival at port B.	You can only load to the winter mark plus any fresh water allowance and burnout to sea at port A.	You must be at the winter mark when you enter the winter zone and cannot exceed the summer mark upon departing port A.	You can load so that upon arrival at the pier at port B your freeboard is equal to the summer mark less any fresh water allowance.	
4	4197	C	While in 150 feet water depth when the pitch angle of the COASTAL DRILLER is 2 degrees, the platform roll period for going on location should be longer than _____.	0.5 second	5.0 seconds	10.0 seconds	13.5 seconds	
4	4198	D	A tanker loads at a terminal within the tropical zone. She will enter the summer zone six days after departing the loading port. She will burn off 45 tons/day and daily water consumption is 8 tons. How many tons may she load over that allowed by her summer load line?	270	278	291	318	

4	4199	B	A vessel's tropical load line is 6 in. above her summer load line. Her TPI is 127 tons. She will arrive in the summer zone 8 days after departure. She will burn off about 47 tons/day fuel and water consumption is 12 tons/day. How many tons may she load above her summer load line if she loads in the tropical zone?	376	472	762	1016	
4	4200	D	A vessel has a maximum allowable draft of 28 feet in salt water and a fresh water allowance of 8 inches. At the loading berth, the water density is 1.011. To what draft can she load in order to be at her marks when she reaches the sea? (The salt water density is 1.025.)	27' 07.5"	27' 08.5"	28' 03.5"	28' 04.5"	
4	4201	C	While in 150 feet water depth when the pitch angle of the COASTAL DRILLER is 1 degree, the platform pitch period for going on location should be longer than _____.	0.2 second	3.2 seconds	7.0 seconds	9.2 seconds	
4	4202	B	Your vessel is floating in water of density 1010. The fresh water allowance is 8 inches. How far below her marks may she be loaded so as to float at her mark in saltwater of density 1025?	3.2 inches	4.8 inches	6.4 inches	8.0 inches	
4	4203	C	While going on location in 200 feet water depth when the roll angle of the COASTAL DRILLER is 2.5 degrees, the roll period should be longer than _____.	0.8 second	6.2 seconds	13.0 seconds	17.0 seconds	
4	4204	A	You are loading in a port subject to the summer load line mark and bound for a port subject to the tropical load line mark. You will enter the tropical zone after steaming four days. You will consume 33 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.006, and the average TPI is 66. What is the minimum freeboard required at the start of the voyage?	78 inches	82 inches	86 inches	88 inches	BL-0022
4	4205	A	While in 150 feet water depth when the single amplitude roll angle of the COASTAL DRILLER is 2 degrees, the safe platform roll period for going on location should be longer than _____.	0.5 second	5.0 seconds	10.0 seconds	13.5 seconds	
4	4206	D	You are loading in a port subject to the tropical load line mark and bound for a port subject to the summer load line mark. You will enter the summer zone after steaming two days. You will consume 28 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.020, and the average TPI is 55. What is the minimum freeboard required at the start of the voyage?	62 inches	66 inches	70 inches	74 inches	BL-0021
4	4207	C	While in 150 feet water depth when the single amplitude roll angle of the COASTAL DRILLER is 1 degree, the safe platform roll period for going on location should be longer than _____.	0.2 second	3.2 seconds	7.0 seconds	9.2 seconds	

4	4208	C	You are loading in a port subject to the winter load line mark and bound for a port subject to the summer load line mark. You will enter the summer zone after steaming six days. You will consume 32 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.005, and the average TPI is 65. What is the minimum freeboard required at the start of the voyage?	93 inches	90 inches	81 inches	70 inches	BL-0020
4	4209	D	You are loading in a port subject to the tropical load line mark and bound for a port subject to the summer load line mark. You will enter the summer zone after steaming four days. You will consume 41 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.000 and the average TPI is 55. What is the minimum freeboard required at the start of the voyage?	55 inches	49 inches	44 inches	41 inches	BL-0019
4	4210	A	You are loading in a port subject to the summer load line mark and bound for a port subject to the winter load line mark. You will enter the winter zone after steaming four days. You will consume 35 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.0083, and the average TPI is 65. What is the minimum freeboard required at the start of the voyage?	74 inches	78 inches	80 inches	86 inches	BL-0018
4	4211	B	The COASTAL DRILLER, while in normal transit, experiences a single amplitude roll of 6 degrees. What is the minimum roll period which does not exceed design limits of the legs?	10.5 seconds	8.0 seconds	4.5 seconds	1.0 second	
4	4212	D	You are loading in a port subject to the tropical load line mark and bound for a port subject to the summer load line mark. You will enter the summer zone after steaming ten days. You will consume 33 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.021, and the average TPI is 51. What is the minimum freeboard required at the start of the voyage?	76 inches	74 inches	73 inches	72 inches	BL-0017
4	4213	D	While in ocean transit, the COASTAL DRILLER has a roll period of four seconds. What would be the largest angle each side of vertical that does not exceed the design limit of the legs?	6.3 degrees	5.0 degrees	3.5 degrees	2.0 degrees	
4	4214	C	You are loading in a port subject to the tropical load line mark and bound for a port subject to the winter load line mark. You will enter the summer zone after steaming eight days, and you will enter the winter zone after a total of ten days. You will consume 31 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.016, and the average TPI is 41. What is the minimum freeboard required at the start of the voyage?	72 inches	70 inches	68 inches	64 inches	BL-0015
4	4215	A	A mat-type jack-up drilling unit is the best selection for _____.	soft mud bottoms	uneven bottoms	deep water	hard bottoms	

4	4216	D	You are loading in a port subject to the tropical load line mark and bound for a port subject to the winter load line mark. You will enter the summer zone after steaming four days, and you will enter the winter zone after a total of nine days. You will consume 29 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.008, and the average TPI is 53. What is the minimum freeboard required at the start of the voyage?	72.5 inches	75.0 inches	77.0 inches	80.0 inches	BL-0016
4	4217	A	A mat-supported jack-up is best suited for drilling in locations with bottom conditions which are _____.	soft and level	firm and uneven	sloping	coral	
4	4218	A	You are loading in a port subject to the winter load line mark and bound for a port subject to the tropical load line mark. You will enter the summer zone after steaming four days, and you will enter the tropical zone after a total of twelve days. You will consume 31 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.000, and the average TPI is 46. What is the minimum freeboard required at the start of the voyage?	78 inches	74 inches	70 inches	68 inches	BL-0013
4	4219	B	You are loading in a port subject to the tropical load line mark and bound for a port subject to the winter load line mark. You will enter the summer zone after steaming one day, and you will enter the winter zone after a total of eleven days. You will consume 33 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.004, and the average TPI is 46. What is the minimum freeboard required at the start of the voyage?	85 inches	82 inches	80 inches	78 inches	BL-0011
4	4220	A	You are loading in a port subject to the winter load line mark and bound for a port subject to the tropical load line mark. You will enter the summer zone after steaming four days, and you will enter the tropical zone after a total of twelve days. You will consume 39 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.025, and the average TPI is 49. What is the minimum freeboard required at the start of the voyage?	90 inches	87 inches	80 inches	77 inches	BL-0010
4	4221	C	Considering the changes to lightweight shown in section 5 of the COASTAL DRILLER Manual, the maximum allowable combination of hook, rotary, and setback load for the COASTAL DRILLER with the rotary located 34 feet aft of the transom and two feet to port of the centerline is _____.	1000 kips	875 kips	854 kips	755 kips	
4	4222	A	The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the LCG-FP of the liquid load.	273.5 ft	288.8 ft	292.3 ft	305.3 ft	ST-0157
4	4223	B	On the COASTAL DRILLER, the maximum aft extension of the cantilever places the rotary _____.	68.33 feet aft of the transom	40.00 feet aft of the transom	38.33 feet aft of the transom	28.33 feet aft of the transom	

4	4224	D	You are loading in a port subject to the tropical load line mark and bound for a port subject to the winter load line mark. You will enter the summer zone after steaming eleven days, and you will enter the winter zone after a total of fourteen days. You will consume 36 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.025, and the average TPI is 51. What is the minimum freeboard required at the start of the voyage?	75.0 inches	76.0 inches	79.5 inches	81.0 inches	BL-0006
4	4225	A	The maximum transverse extension of the cantilever for the COASTAL DRILLER places the rotary _____.	within 10 feet of the centerline	at the vessel TCG	at the leg centroid	40 feet aft of the transom	
4	4226	B	You are loading in a port subject to the winter load line mark and bound for a port subject to the tropical load line mark. You will enter the summer zone after steaming four days, and you will enter the tropical zone after a total of seven days. You will consume 38 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.004, and the average TPI is 72. What is the minimum freeboard required at the start of the voyage?	85 inches	90 inches	92 inches	94 inches	BL-0007
4	4227	C	What is the maximum weight that can be placed in the setback area on the COASTAL DRILLER?	1000 kips	750 kips	450 kips	375 kips	
4	4228	B	You are loading in a port subject to the tropical load line mark and bound for a port subject to the winter load line mark. You will enter the summer zone after steaming one day, and you will enter the winter zone after a total of eight days. You will consume 36 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.002, and the TPI is 47. What is the minimum freeboard required at the start of the voyage?	71.0 inches	72.7 inches	79.5 inches	81.0 inches	BL-0005
4	4229	B	You are loading in a port subject to the tropical load line mark and bound for a port subject to the winter load line mark. You will enter the summer zone after steaming one and one-half days, and you will enter the winter zone after a total of six days. You will consume 29 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.006, and the average TPI is 43. What is the minimum freeboard required at the start of the voyage?	79.5 inches	76.5 inches	75.0 inches	72.5 inches	BL-0008
4	4230	B	You are loading in a port subject to the tropical load line mark and bound for a port subject to the winter load line mark. You will enter the summer zone after steaming six days. You will enter the winter zone after an additional three days. You will consume 28 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.020, and the average TPI is 46. What is the minimum freeboard required at the start of the voyage?	61.4 inches	64.5 inches	70.6 inches	77.5 inches	BL-0012
4	4231	D	A tanker loads at a terminal within the tropical zone. She will enter the summer zone 6 days after departing the loading port. She will burn off about 45 tons/day and daily water consumption is 8 tons. How many tons may she load over that allowed by her summer load line?	270	278	291	318	

4	4232	D	The number of approved adult life jackets that shall be carried is equal to _____. (small passenger vessel regulations)	120% of the number of persons listed in the vessel's Certificate of Inspection	90% of the number of persons listed in the vessel's Certificate of Inspection	90% of the number of persons on board at the time	the number of persons on board at the time	
4	4233	D	Considering the changes to lightweight shown in Section 5 of the COASTAL DRILLER Manual, with the rotary 36 feet aft of the transom and 4 feet to port of the centerline, and with 300 kips in the setback, the maximum hook load is limited to _____.	870 kips	635 kips	335 kips	314 kips	
4	4234	B	Which type of fixed fire protection system is approved for use on board uninspected vessels? (Uninspected Vessel Regulations)	Dry chemical	Water mist	Chemical foam	Steam smothering	
4	4235	A	Until a change to lightweight has been approved, the weights and moments shown in the Changes to Lightweight Record of the COASTAL DRILLER are treated as _____.	variable loads	stationary loads	fixed loads	basic loads	
4	4237	D	The Cantilever Beam Load Chart for the COASTAL DRILLER shows the limits in the hook setback conductor tension, and _____.	wind loads	wave loads	current loads	rotary loads	
4	4238	B	You are the operator of a 296 GRT uninspected towing vessel. Its construction was contracted for after August 27, 2003. In addition to the hand portable fire extinguishers, how much other fire extinguishing equipment are you required to have on board?	Either an approved B-V semi-portable fire-extinguishing system or a fixed fire-extinguishing system	Both an approved B-V semi-portable fire-extinguishing system and a fixed fire-extinguishing system	An approved water mist fire protection system and a fixed CO2 fire-extinguishing system	Both an approved B-V semi-portable fire-extinguishing system and an approved water mist fire protection system	
4	4239	C	Either one approved B-V semi-portable fire-extinguishing system or a fixed fire-extinguishing system is required to protect the engine room on towing vessels whose construction was contracted for before _____. (Uninspected Vessel Regulations)	29-Apr-05	29-Apr-04	27-Aug-03	1-Feb-02	
4	4240	B	Both an approved B-V semi-portable fire-extinguishing system and a fixed fire-extinguishing system are required to protect the engine room on towing vessels whose construction was contracted for on or after _____. (Uninspected Vessel Regulations)	1-Feb-02	27-Aug-03	29-Apr-04	29-Apr-05	
4	4241	B	The COASTAL DRILLER is elevated in 250 feet of water, experiencing 2 knots current and 70 knot winds. With a maximum leg reaction of 5,760 kips, the maximum wave height for drilling is _____.	15 feet	20 feet	25 feet	30 feet	
4	4242	C	A certificated lifeboatman assigned to command the lifeboat should _____.	be the first individual to board the craft	drain the hydraulic pressure before lowering the craft	have a list of the persons assigned to the lifeboat	All of the above	
4	4243	D	The Cantilever Beam Load Chart for the COASTAL DRILLER shows the load limits in the hook, setback, conductor tension, and _____.	wind loads	wave loads	pipe rack loads	rotary loads	

4	4244	A	You are the operator of a 290 GRT uninspected towing vessel whose construction was contracted for after August 27, 2003. Which type of semi-portable fire-extinguishing system is required on your vessel? (Uninspected Vessel Regulations)	B-V	B-IV	B-III	None of the above	
4	4245	C	The maximum load line draft for the COASTAL DRILLER is _____.	12 feet 8 inches	11 feet 7.2 inches	10 feet 10.5 inches	10 feet 8.8 inches	
4	4246	A	Radiation spreads a fire by _____.	transferring heat across an unobstructed space	heated gases flowing through ventilation systems	burning liquids flowing into another space	transmitting the heat of a fire through the ship's metal	
4	4247	D	The maximum combined drilling load for the COASTAL DRILLER consisting of the combined hook, rotary, setback, and conductor tension, shall not exceed _____.	450 kips	500 kips	750 kips	1000 kips	
4	4249	B	How should you warm up a diesel engine that has not been run for some time?	Run it at minimum speed until warmed to operating temperature.	Idle for a brief period of time and then warm up at half speed.	Bring it up to top speed immediately and run until warmed up.	Inject ether into the air intake to shorten warm up time.	
4	4251	D	What are the maximum acceptable levels of ice and snow accumulations on the COASTAL DRILLER?	3 inches	2 inches	1 1/4 inches	none	
4	4253	B	What is the maximum weight permitted on the cantilever pipe racks for the COASTAL DRILLER?	450 kips	500 kips	750 kips	1000 kips	
4	4255	B	What is the maximum permitted hook load for the COASTAL DRILLER when 450 kips are in the setback and no other loads are on the cantilever?	450 kips	529 kips	550 kips	750 kips	
4	4256	C	The SS AMERICAN MARINER has drafts of: FWD 28'-00", AFT 30'-04". Use the white pages of the Stability Data Reference Book to determine the drafts if you ballast the forepeak with 110.8 tons of seawater.	FWD 28'-08.2", AFT 29'-11.6"	FWD 28'-09.0", AFT 29' 11.0"	FWD 28'-09.8", AFT 29' 10.4"	FWD 28'-10.6", AFT 29' 09.8"	
4	4257	B	Considering the lightweight changes to the COASTAL DRILLER, what is the maximum permitted hook load permitted when 450 kips are in the setback and 200 kips are in the cantilever pipe rack?	350 kips	529 kips	550 kips	750 kips	
4	4258	A	Dacron sails, when not in use, may be damaged if _____.	left in the sunlight	stowed wet	washed with soap	folded frequently	
4	4261	C	The rotary of the COASTAL DRILLER is located 34 feet aft of the transom and 2 feet to port of the centerline. With the changes to lightweight shown in the Operating Manual, the maximum allowable hook load is _____.	1000 kips	875 kips	854 kips	776 kips	
4	4263	C	The rotary of the COASTAL DRILLER is located 38 feet aft of transom and 6 feet to starboard of the centerline. With the changes to lightweight shown in the Operating Manual, the maximum allowable hook load is _____.	1000 kips	445 kips	424 kips	346 kips	
4	4265	D	The rotary of the COASTAL DRILLER is located 36 feet aft of the transom and 6 feet to starboard of the centerline. The hook load is 300 kips. Considering the changes to lightweight shown in the Operating Manual, the maximum amount of setback is _____.	545 kips	450 kips	245 kips	224 kips	
4	4267	C	For the COASTAL DRILLER, what is the maximum rotary load that can be used when the rotary has been extended 40 feet aft of the transom?	750 kips	630 kips	609 kips	531 kips	

4	4273	C	The overturning forces acting on a floating jack-up are generally dominated by _____.	waves	current	wind	tide	
4	4275	B	The independent-leg drilling unit is the best jack-up rig selection for drilling at locations with _____.	soft even bottoms	firm uneven bottoms	deep water	shallow water	
4	4277	B	Drilling loads on the COASTAL DRILLER are the combined loads arising from conductor tension, rotary, hook, and _____.	fixed loads	setback loads	basic loads	variable loads	
4	4281	D	The maximum allowable KG for the COASTAL DRILLER in normal transit at a draft of 10.5 feet is _____.	40 feet	45 feet	55 feet	65 feet	
4	4283	A	When underway at a draft of 10.5 feet in a severe storm, the COASTAL DRILLER has a maximum allowed KG of _____.	40 feet	50 feet	55 feet	65 feet	
4	4285	D	During an ocean tow when the winds are less than 70 knots, the maximum allowable KG for the COASTAL DRILLER is _____.	38.75 feet	42.00 feet	44.00 feet	65.00 feet	
4	4287	C	While in ocean transit at a draft of 10 feet, the Coastal Driller has a maximum allowed KG of _____.	42 feet	44 feet	65 feet	70 feet	
4	4291	D	While the COASTAL DRILLER is in transit, stability is acceptable provided that neither the KGL nor the KGT exceed _____.	the height of the righting arm	KML or KMT	GML or GMT	maximum allowable KG	
4	4293	C	Preloading tests the soil to the vertical leg reaction that would be imposed by _____.	static forced and drilling loads	a severe storm	the design storm	environmental forces	
4	4295	A	The COASTAL DRILLER, in transit with winds expected to exceed 70 knots, must lower the legs so that the can tips are _____.	60.5 feet below the hull	48.5 feet below the hull	11.6 feet below the hull	1.2 feet below the hull	
4	4297	C	The COASTAL DRILLER is in ocean transit in which the winds are not expected to exceed 70 knots. In order to meet the leg strength requirements, the tip of can (TOC) position should be at _____.	0.00 feet (flush with bottom of hull)	1.20 feet	12.38 feet	60.50 feet	
4	4301	B	When leveling the elevated COASTAL DRILLER, you may raise the low corner instead of lowering the high corner _____.	in all cases, it is optional	if lowering the high corner places the unit in the wave action	if proper air gap has been exceeded	if a potential punch-through threatens	
4	4303	C	During a long ocean tow of a jack-up the clearance in the upper guide should be reduced to zero to restrain the leg and eliminate the impact loads from dynamic responses. This is best done by _____.	lowering the spud cans below the hull	raising the spud cans into hull recesses	tapering the upper guides and building up the teeth	remove certain lengths of leg	
4	4305	B	The COASTAL DRILLER is experiencing a single amplitude roll angle of 3 degrees and a roll period of 10 seconds. What is the maximum water depth that can be used for going on location?	45 feet	95 feet	145 feet	245 feet	
4	4307	D	To what distance below the hull must the legs of the COASTAL DRILLER be lowered in order to meet the stability and leg strength requirements during the wind speeds greater than 70 knots?	0.0 feet	1.2 feet	25.0 feet	60.5 feet	
4	4311	A	The COASTAL DRILLER, in transit with winds expected to exceed 70 knots, must lower the legs to 60.5 feet below the hull in order to meet the requirements for stability and _____.	leg strength	variable load	environmental load	load line	

4	4312	A	The SS AMERICAN MARINER is ready to bunker with drafts of FWD 11'-01", AFT 14'-07". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction.	1.30 feet	1.17 foot	1.06 foot	0.91 foot	ST-0158
4	4313	A	The COASTAL DRILLER, in transit with winds expected to exceed 70 knots, must lower the legs to 60.5 feet below the hull in order to meet the requirements for leg strength and _____.	stability	variable load	environmental load	load line	
4	4315	A	Curve A in the Design Limits of Legs Chart of the Coastal Driller Operating Manual, shows the operating limits during severe storm conditions during transit based on _____.	stability and leg strength	variable load	environmental load	load line	
4	4317	A	Curve B in the Design Limits of Legs Chart of the Coastal Driller Operating Manual, shows the operating limits during normal transit based on _____.	leg strength	variable load	environmental load	load line	
4	4321	A	Sea water temporarily pumped into tanks to simulate the increased vertical loading of environmental forces is termed _____.	preload	liquid variable load	fixed load	basic load	
4	4323	B	Guide tolerances during elevation of the jack-up rig will _____.	reduce spud can bearing pressure	keep the unit level and reduce overloading	reduce stresses on the hull	minimize the potential for punch-through	
4	4325	C	Lowering the hull of the COASTAL DRILLER and refloating should be done in favorable weather conditions with wave heights not more than _____.	three feet	four feet	five feet	six feet	
4	4326	D	The SS AMERICAN MARINER has on board 4850 tons of cargo with an LCG-FP of 279.84 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo.	LCG-FP 267.7 feet	LCG-FP 268.4 feet	LCG-FP 269.2 feet	LCG-FP 270.6 feet	ST-0159
4	4331	B	On the COASTAL DRILLER, a noticeable increase in the level indicator while extracting the legs from the soil indicates _____.	the legs are free	one or two legs are stuck	a punch-through is occurring	the legs are being extracted through a punch-through soil layer	
4	4333	C	The COASTAL DRILLER is experiencing a single amplitude roll angle of 2 degrees and a roll period of 10 seconds. What is the maximum recommended water depth for elevating?	50 feet	100 feet	150 feet	200 feet	
4	4334	D	What is the function of an air receiver in the compressed air system?	Condenses moisture	Provides overpressure protection	Purifies the air	Acts as an accumulator	
4	4335	C	The COASTAL DRILLER is experiencing a single amplitude roll angle of 1 degree and a roll period of 7 seconds. What is the maximum recommended water depth for elevating?	50 feet	100 feet	150 feet	200 feet	
4	4336	C	The SS AMERICAN MARINER has on board 5486 tons of cargo with an LCG-FP of 277.84 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo.	LCG-FP 271.2 feet	LCG-FP 272.1 feet	LCG-FP 273.6 feet	LCG-FP 274.6 feet	ST-0160

4	4337	B	The COASTAL DRILLER, following discharge of preload, should _____.	leave dump valves open	close all dump valves	remove dump valves	replace dump valves	
4	4341	D	The COASTAL DRILLER is elevated to an air gap of 25 feet in 250 feet of water. The current is 2 knots and the waves are 30 feet. The maximum leg reaction is 6,120 kips. What is the maximum wind for drilling operations?	100 knots	70 knots	60 knots	40 knots	
4	4345	C	What information must be available to use the Allowable Wind and Wave Charts for the COASTAL DRILLER?	Soil conditions	Overturning moment	Water depth	Specific gravity of the sea water	
4	4346	B	The EPIRB on board your vessel is required to be tested _____.	weekly	monthly	quarterly	yearly	
4	4347	D	In using the Allowable Wind and Wave Charts for the COASTAL DRILLER, leg penetration is assumed to be less than _____.	55 feet	45 feet	35 feet	25 feet	
4	4355	B	If the maximum leg penetration of the COASTAL DRILLER is 75 feet, the water depth value in the Allowable Wind and Wave Charts must be increased by _____.	75 feet	50 feet	25 feet	0 feet	
4	4357	C	In using the Allowable Wind and Wave Charts for the COASTAL DRILLER, which of the three leg reactions is required?	Minimum	Average	Highest	Preloaded value	
4	4361	D	On the COASTAL DRILLER, hook load includes the weight of the _____.	setback load	rotary load	conductor tension	drill string	
4	4362	A	The free surface effects of a partially full tank in a vessel increase with the _____.	surface area of the fluid in the tank	displacement volume of the vessel	draft of the vessel	height of the tank above the keel	
4	4363	A	Scouring is the result of _____.	interruption of the normal current flow by the footing	elevating in mud-slide zones	penetrating rapidly through a hard crust into weaker soils	extracting legs from soils with high cohesion	
4	4371	A	Where the seabed consists of sand or silt, the most severe potential problem for an independent-leg jack-up can result from _____.	scour	penetration	marine growth	insufficient preload	
4	4373	A	In comparison to electric power, hydraulic power for jacking systems has the advantage of _____.	better control capabilities	less maintenance and repair	fewer personnel needed during jacking	less preload needed	
4	4375	B	On the COASTAL DRILLER, what is NOT considered a drilling load?	Hook load	Cantilever pipe rack	Conductor tension	Setback	
4	4377	B	The elevating system of the COASTAL DRILLER is normally limited to _____.	14,158 kips	14,400 kips	17,280 kips	21,297 kips	
4	4383	C	In an emergency, the jacking system on the COASTAL DRILLER is capable of elevating the unit with a loading of _____.	14,158 kips	14,400 kips	17,280 kips	21,297 kips	
4	4385	C	While elevated as shown in Sample Load Form #3 (Drilling), winds are 57 knots and current is 2 knots. What is the maximum wave height allowed for drilling?	30 feet	33 feet	35 feet	40 feet	
4	4387	B	The COASTAL DRILLER is elevated in 192 feet of water. Leg penetration is 83 feet. The maximum leg reaction is 5,940 kips. The waves are 30 feet and the current is 2 knots. What is the maximum wind for drilling?	45 knots	50 knots	57 knots	62 knots	
4	4391	C	Which data is NOT used in the Allowable Wind and Wave Charts for the COASTAL DRILLER?	Leg penetration	Wave height	Total weight	Current	
4	4393	D	Environmental loading consists of the forces caused by wind, waves, and _____.	drilling	soil reactions	temperature	current	

4	4397	A	What maximum wind velocity is assumed when determining the limits of elevated service for the COASTAL DRILLER?	100 knots	70 knots	50 knots	It varies with the Allowable Wind and Wave charts.	
4	4401	B	Use of air gaps in excess of that stated in the Limits of Elevated Service for the COASTAL DRILLER could result in _____.	the hull being in the storm wave zone	increased overturning moments	reduced exposed area	increased static leg loading	
4	4402	D	The SS AMERICAN MARINER has on board 6584 tons of cargo with an LCG-FP of 277.84 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo.	LCG-FP 271.2 feet	LCG-FP 272.1 feet	LCG-FP 273.6 feet	LCG-FP 274.6 feet	ST-0161
4	4403	B	Scouring usually occurs with soils such as _____.	clay	sand	coral	mud	
4	4404	A	The letter and number symbols, such as B-II, used to classify portable fire extinguishers indicate the _____.	class of fire and size of the extinguisher	class of fire and location aboard vessel	extinguishing agent and relative size of the extinguisher	extinguishing agent and location aboard vessel	
4	4405	D	Leg penetration to depths which require pullout forces greater than that which can be supplied by the buoyancy of the hull may exist in _____.	soft mud	sand	silt	soft to firm clays	
4	4411	C	While the COASTAL DRILLER is in a normal transit, the roll period is 9 seconds. What is the limiting angle of roll which does not exceed the design limits of the legs?	11°	9°	7°	5°	
4	4413	C	The COASTAL DRILLER, while in a normal transit, experiences single amplitude rolling of three degrees. What is the minimum period of roll which does not exceed the design limits of the legs?	1.5 seconds	3.0 seconds	5.5 seconds	7.0 seconds	
4	4415	D	While in ocean transit, the COASTAL DRILLER has a roll period of 9 seconds. What is the largest angle each side of vertical that does not exceed the design limits of the legs in good weather?	14°	11°	9°	7°	
4	4416	D	The color of the signal flare sent up by a submarine indicating that a torpedo has been fired in a training exercise is _____.	white	yellow	red	green	
4	4417	A	The COASTAL DRILLER, while in an ocean transit, experiences a single amplitude roll of 8 degrees. What is the minimum period of motion which does not exceed the design limits of the legs?	10 seconds	8 seconds	6 seconds	4 seconds	
4	4421	C	While the COASTAL DRILLER is in normal transit, the roll period is 8 seconds. What would be the limiting angle of pitch which does not exceed the design limits of the legs?	10°	8°	6°	4°	
4	4423	D	While in ocean transit, the COASTAL DRILLER experiences a single amplitude roll of 5 degrees. What is the minimum roll period that does not exceed the design limits of the legs?	2.7 seconds	4.0 seconds	6.5 seconds	7.2 seconds	
4	4435	B	The COASTAL DRILLER has sufficient reserve stability to overcome damage due to flooding of any one watertight compartment in winds to _____.	36 knots	50 knots	70 knots	100 knots	

4	4447	D	When a helicopter is lifting personnel from a survival craft, the other individuals in the craft should _____.	enter the water in case the person being lifted slips from the sling	stand on the outside of the craft to assist the person being lifted	remove their life preservers to prepare for their transfer to the helicopter	remain seated inside the craft to provide body weight for stability	
4	4453	C	When transferring survivors from a survival craft to a rescue vessel, personnel on board the craft should _____.	remove their life preservers to make it easier to climb on board the rescue vessel	climb on top of the survival craft while waiting for their turn to transfer to the rescue vessel	remain seated inside the survival craft and make the transfer one person at a time	enter the water and swim over to the rescue vessel	
4	4455	D	What is the primary advantage of a davit-launched liferaft in comparison to an inflatable liferaft?	The davit-launched liferaft is easier to maintain.	The davit-launched liferaft is made of fire-retardant material.	The davit-launched liferaft has a built-in sprinkler system for fire protection.	The davit-launched liferaft enables personnel to enter the raft without having to enter the water.	
4	4457	A	Prior to entering a davit-launched liferaft, you should make sure that _____.	the liferaft is well ventilated of excess carbon dioxide	all personnel have removed their life preservers to facilitate boarding	the door flap has been cut away and stowed inside the raft	All of the above	
4	4458	A	Any firefighting equipment that is carried in addition to the minimum required must _____.	meet the applicable standards	be marked as additional equipment	be stowed in a separate area	All of the above	
4	4461	D	If you have to jump in the water when abandoning a MODU, your legs should be _____.	spread apart as far as possible	held as tightly against your chest as possible	in a kneeling position	extended straight down and crossed at the ankles	
4	4463	C	The COASTAL DRILLER's ability to meet the damage stability criteria depends on maintaining a watertight integrity, KGL and KGT less than maximum allowed, level attitude, and displacement less than _____.	11,777 kips	13,158 kips	14,158 kips	17,280 kips	
4	4465	B	The COASTAL DRILLER's ability to meet the damage stability criteria depends on maintaining watertight integrity, displacement less than 14,158 kips, level attitude, and KGT and KGL less than _____.	the height of the righting arm	the maximum allowed	GMT and GML	BMT and BML	
4	4471	D	A severe storm threatens the COASTAL DRILLER, and a decision is made to evacuate the unit. If practical, all non-essential personnel should be off the unit in advance of the storm's predicted arrival by _____.	12 hours	24 hours	36 hours	48 hours	
4	4475	D	While the COASTAL DRILLER is elevated, the out-of-level alarm indicates that hull inclination exceeds 0.3°. What should you do?	Raise the high corner.	Raise the low corner.	Raise unit to proper air gap and inspect for damage.	Confirm operation of out-of-level alarm.	
4	4477	B	If you see someone fall overboard from a MODU, you should _____.	immediately jump in the water to help the individual	call for help and keep the individual in sight	run to the radio room to send an emergency message	go to the control room for the distress flares	
4	4481	B	The COASTAL DRILLER, with a draft of 10 feet 3 inches in seawater, has a displacement of _____.	13,011 kips	13,336 kips	13,445 kips	14,637 kips	
4	4483	A	The COASTAL DRILLER has a trim of 2.13 feet by the stern. The draft in sea water at the forward draft marks is observed to be 8.0 feet. The KML is _____.	286.27 feet	299.09 feet	316.67 feet	355.42 feet	

4	4484	B	The SS AMERICAN MARINER has on board 6285 tons of cargo with an LCG-FP of 272.45 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo.	LCG-FP 271.2 feet	LCG-FP 272.1 feet	LCG-FP 273.6 feet	LCG-FP 274.6 feet	ST-0162
4	4485	A	The COASTAL DRILLER has a trim of 2.13 feet by the stern. The draft in sea water at the forward draft marks is observed to be 8.0 feet. The KMT is _____.	153.73 feet	160.42 feet	179.41 feet	203.97 feet	
4	4486	B	The international body responsible for drafting the convention prohibiting marine pollution (MARPOL) is the _____.	Maritime Advisory Council	International Maritime Organization	International Association of Shipping	Association of Seafaring Nations	
4	4487	C	Weights added or discharged at the center of flotation on the COASTAL DRILLER while floating will change the _____.	list	trim	true mean draft	TPI	
4	4491	D	The COASTAL DRILLER, with a displacement of 13,553 kips, has a draft of _____.	10.5 feet	11 feet 6 inches	11 feet 2 inches	10 feet 5 inches	
4	4493	A	The COASTAL DRILLER, with a draft of 10 feet 6 inches, has a displacement of _____.	13,662 kips	13,553 kips	13,011 kips	12,252 kips	
4	4495	D	The COASTAL DRILLER is in transit at a draft of 10.5 feet. It discharges 216.43 kips of weight. What is the new draft?	10.7 feet	10.3 feet	10 feet 8 inches	10 feet 4 inches	
4	4497	D	The COASTAL DRILLER is in transit at the load line draft. It discharges 279.93 kips of weight. The new draft is _____.	10.88 feet	10.8 feet	10.0 feet	10 feet 8 inches	
4	4501	B	The COASTAL DRILLER is in transit at a draft of 10.0 feet. It loads 216.43 kips of weight aboard. What is the new draft?	10.2 feet	10 feet 2 inches	10 feet 3 inches	10 feet 4 inches	
4	4503	C	The COASTAL DRILLER has a change of trim by the head of 2.0 feet. What is the change of draft at the forward draft marks?	0.66 feet	1.00 feet	1.33 feet	2.00 feet	
4	4505	B	The height of the longitudinal metacenter of the COASTAL DRILLER at a displacement of 13,810 kips is _____.	256.51 feet	255.11 feet	254.60 feet	253.20 feet	
4	4507	B	The height of the transverse metacenter of the COASTAL DRILLER at a displacement of 13,011 kips is _____.	144.21 feet	145.33 feet	267.98 feet	270.13 feet	
4	4511	C	The height of the transverse metacenter of the Coastal Driller at a displacement of 13,050 kips is _____.	143.81 feet	144.61 feet	144.93 feet	145.73 feet	
4	4513	C	When the COASTAL DRILLER is level at a draft of 10.5 feet, what is the value of the LCG?	00.0 feet	111.35 feet	119.44 feet	120.59 feet	
4	4515	C	A survival craft being used to pick up a person who has fallen overboard from a MODU should approach the person _____.	at a high rate of speed	under oars	against the wind	with the wind	
4	4517	C	The longitudinal location of the center of flotation for the COASTAL DRILLER has a value of _____.	207.33 feet AF0	160.33 feet AF0	119.44 feet AF0	38.33 feet AF0	
4	4521	D	While in transit at a draft of 10.5 feet, the COASTAL DRILLER has a KGT of 60.0 feet. What is the GMT?	139.92 feet	138.89 feet	79.92 feet	78.89 feet	
4	4523	D	The capacity of the COASTAL DRILLER preload tanks is _____.	21,297.0 kips	11,777.2 kips	9,753.7 kips	8,708.0 kips	

4	4525	D	Preload tank 22B on the COASTAL DRILLER contains 5.0 feet of preload. It is decided to complete filling the tank. What is the TCG of the added liquid?	65.60 feet	65.74 feet	65.77 feet	65.83 feet	
4	4527	A	The sounding for Drill Water Tank #18 for the Coastal Driller is 1.25 feet. It is decided to fill the tank. What is the vertical center of gravity for the added liquid?	3.13 feet	2.50 feet	1.87 feet	0.63 foot	
4	4533	C	The sounding level of 17 lb. per gallon mud in mud pit 2S of the COASTAL DRILLER is 7.75 feet. What are the longitudinal moments for this mud?	16,031 ft-kips	16,342 ft-kips	20,387 ft-kips	20,781 ft-kips	
4	4534	A	The SS AMERICAN MARINER has on board 5577 tons of cargo with an LCG-FP of 275.55 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo.	LCG-FP 271.2 feet	LCG-FP 272.1 feet	LCG-FP 273.6 feet	LCG-FP 274.6 feet	ST-0163
4	4535	C	The sounding level of 17 lb. per gallon mud in mud pit 2S of the COASTAL DRILLER is 7.75 feet. What are the transverse moments for this mud?	896 ft-kips	913 ft-kips	1139 ft-kips	1161 ft-kips	
4	4537	B	What is the weight in long tons of 180 barrels of 15 pound per gallon drilling mud?	522.67 long tons	50.63 long tons	34.84 long tons	3.38 long tons	
4	4541	B	What is the weight in drill water tank #1 for the COASTAL DRILLER, if the sounding in the tank is 8 feet 2 inches?	202.16 kips	204.60 kips	206.87 kips	209.34 kips	
4	4543	C	What is the sounding in drill water tank #1 for the COASTAL DRILLER, if the weight of drill water in the tank is 388.32 kips?	14.5 feet	15.0 feet	15.5 feet	16.0 feet	
4	4545	C	What is the VCG of the drill water in the COASTAL DRILLER's #1 Drill Water Tank, if the weight in the tank is 388.32 kips?	7.25 feet	7.50 feet	7.75 feet	8.00 feet	
4	4546	D	Fire dampers prevent the spread of fire by _____.	direct contact	radiation	conduction	convection	
4	4547	A	What are the vertical moments for 14.0 feet of drill water in the COASTAL DRILLER's #1 drill water tank?	2.455 ft-kips	2.543 ft-kips	2.725 ft-kips	2.997 ft-kips	
4	4551	B	What are the transverse moments for 10.5 feet of sea water in preload tank #2 for the COASTAL DRILLER?	15,044 kips	12,123 kips	5,468 kips	2,732 kips	
4	4553	D	What longitudinal moments are created when 379.97 kips of fresh water is placed in the COASTAL DRILLER's #1 drill water tank?	1,729 ft-kips	1,739 ft-kips	1,749 ft-kips	1,759 ft-kips	
4	4555	B	The COASTAL DRILLER at a draft of 10.5 feet, transfers a portion of the on board liquids from full drill water tank #23 to empty drill water tank #24. What is the change in the free surface correction?	0.69 foot	0.44 foot	0.34 foot	0.22 foot	
4	4557	B	The sounding level of 12 lb. per gallon mud in mud pit 1S of the COASTAL DRILLER is 5.5 feet. What is the weight of the mud?	104.53 kips	114.37 kips	116.45 kips	127.41 kips	
4	4561	C	The sounding level of 17 lb. per gallon mud in mud pit 2S of the COASTAL DRILLER is 7.75 feet. What is the weight of the mud?	153.16 kips	156.13 kips	194.77 kips	198.54 kips	
4	4563	B	While loaded as shown in the COASTAL DRILLER sample load form #3 (drilling), 200 kips are discharged from 60 feet AF0 and 30 feet to starboard of the centerline. What is the starboard leg reaction?	4,271 kips	5,393 kips	5,410 kips	5,571 kips	

4	4565	C	The COASTAL DRILLER, elevated in 200 feet of water with 2 knots current, 30 foot waves, and wind speeds of 60 knots may continue drilling if the maximum leg reaction is less than _____.	5,700 kips	5,790 kips	5,870 kips	5,990 kips	
4	4567	D	When elevated, placing the LCG and TCG at the leg centroid provides _____.	reduced scour rates	higher variable loading during preloading	higher drilling loads	equal leg reactions	
4	4571	A	The COASTAL DRILLER, while elevated in 200 feet of water, has 2 knots of current, 50 knots of wind, and 30 foot seas. What is the maximum leg reaction for drilling?	6,090 kips	5,980 kips	5,540 kips	5,320 kips	
4	4572	B	You are underway at sea. A fire is reported in the forward part of the vessel. The wind is from dead ahead at 20 knots. You should _____.	remain on course and hold speed	change course and put the stern to the wind	change course to put the wind on either beam and increase speed	remain on course but decrease speed	
4	4573	A	The total leg load reactions on an independent leg, self-elevating unit include static and _____.	environmental loading	variable loading	fixed loading	basic loading	
4	4574	C	The SS AMERICAN MARINER has on board 4824 tons of cargo with an LCG-FP of 277.45 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo.	LCG-FP 267.7 feet	LCG-FP 268.4 feet	LCG-FP 269.2 feet	LCG-FP 270.6 feet	ST-0164
4	4575	C	What precaution should be taken when testing a line throwing gun?	Wear asbestos gloves.	Fire it at an angle of approximately 90 degrees to the horizon.	Never remove the line from the rocket.	All of the above	
4	4577	B	When the COASTAL DRILLER is properly preloaded, each of the leg reactions should be _____.	7,200 kips	7,099 kips	4,720 kips	3,381 kips	
4	4583	C	The COASTAL DRILLER, elevated in 150 feet of water with 0 knots current, 10 foot waves, and wind speeds of 70 knots may continue drilling if the maximum leg reaction is less than _____.	5,940 kips	6,020 kips	6,080 kips	6,520 kips	
4	4587	C	The COASTAL DRILLER, while drilling, has a total weight of 15,400 kips. The LCG is 120.00 feet AF0, and the TCG is -0.5 feet to port of the centerline. What is the bow leg reaction?	4,737 kips	4,916 kips	5,063 kips	5,145 kips	
4	4591	C	The COASTAL DRILLER, elevated in 100 feet of water with 0 knots current, 30 foot waves, and wind speeds of 50 knots may continue drilling if the maximum leg reaction is less than _____.	6,180 kips	6,320 kips	6,440 kips	6,520 kips	
4	4593	C	The COASTAL DRILLER, while drilling, has a total weight of 15,400 kips. The LCG is 120.00 feet AF0, and the TCG is -0.5 feet to port of the centerline. What is the port leg reaction?	5,063 kips	5,104 kips	5,233 kips	5,345 kips	
4	4594	B	As shown, a frapping line is indicated by number _____.	1	2	3	4	D016SA
4	4595	C	The COASTAL DRILLER, while drilling, has a total weight of 15,400 kips. The LCG is 120.00 feet AF0, and the TCG is -0.5 foot to port of the centerline. What is the starboard leg reaction?	4,956 kips	5,063 kips	5,104 kips	5,233 kips	

4	4597	C	While loaded as shown in the COASTAL DRILLER Sample Load Form #3 (Drilling), 236 kips are discharged from 80 feet AF0 and 19.79 feet to port of the centerline. What is the resulting starboard leg reaction?	4,281 kips	5,382 kips	5,459 kips	5,537 kips	
4	4601	C	The COASTAL DRILLER is drilling while weighing 15,436 kips. LM are 2,006,680 ft-kips, and TM are -7,718 ft-kips. What is the port leg reaction?	3,806 kips	5,751 kips	5,879 kips	7,549 kips	
4	4603	C	The COASTAL DRILLER is elevated while preparing for the passage of a severe storm. With ideal loading, the static loading on each of the three legs would be 4,715 kips. However, the LCG is 121 feet AFO and TCG is 0.5 foot to starboard of the centerline. By how many kips does the starboard leg reaction exceed the ideal loading?	00 kips	32 kips	149 kips	181 kips	
4	4605	B	How many independent bilge systems is the COASTAL DRILLER equipped with?	1	2	3	4	
4	4607	B	On the COASTAL DRILLER, the level of water in each of two pump bilge pits is monitored by hydrostatic alarm switches connected to a remote panel located in the _____.	OIM's quarters	OIM's office	control house	SCR room	
4	4611	C	On the COASTAL DRILLER, the level of water in each of two pump bilge pits is monitored by _____.	visual sight gages	low and high level alarms	hydrostatic alarm switches	OSS units (overflow sequence selector units)	
4	4615	D	On the machinery deck of the COASTAL DRILLER, each watertight compartment has at least one sump valve that can be remotely operated from the _____.	OIM's quarters	OIM's office	control house	bilge pit	
4	4616	A	You are scheduled to load 4700 tons of cargo, 45 tons of crew effects and stores and 323 tons of fuel. Use the blue pages of the Stability Data Reference Book to determine the vessel's mean draft in salt water.	19'-00"	19'-04"	19'-09"	20'-01"	
4	4617	D	On the COASTAL DRILLER, in case one of the two bilge pits is flooded, the other can operate through a(n)_____.	six-inch line connected to the independent isolation valves to the sea chest	separate bilge discharge manifold	independent scavenger manifold	crossover arrangement	
4	4621	C	On the COASTAL DRILLER, the start/stop station for the bilge pumps is located _____.	in the OIM's office	in the control house	near the bilge pits	in the MCC	
4	4622	B	The SS AMERICAN MARINER has drafts of: FWD 26'-04", AFT 28'-08". Use the white pages of the Stability Data Reference Book to determine the drafts if you ballast the forepeak with 101 tons of seawater.	FWD 27'-00.6, AFT 28'-01.7"	FWD 27'-01.2", AFT 28'-02.5"	FWD 27'-01.8", AFT 28'-03.1"	FWD 27'-02.4", AFT 28'-03.7"	
4	4623	A	On the COASTAL DRILLER, the bilge discharge is normally through the _____.	overboard discharge	dump valves	skimmer tank	sump valves	
4	4625	A	The order to abandon a MODU should only be given by the _____.	Offshore Installation Manager	Barge Engineer	Ballast Control Operator	Rig Safety Supervisor	
4	4627	D	On the COASTAL DRILLER, except when pumping from a tank, the bilge system valves should be _____.	cracked open	in the check-stop position	opened for draining	closed	
4	4631	C	On the COASTAL DRILLER, in case the bilge discharge is oily, the bilge water should be discharged through the _____.	overboard discharge	dump valves	skimmer tank	sump valves	

4	4633	C	On the COASTAL DRILLER, when afloat, oily bilge discharge should be pumped through the _____.	overboard discharge	dump valves	skimmer tanks	raw water header	
4	4635	D	How much drill water is required for transfer between drill water tanks #25 and #26 in order to correct the list of the COASTAL DRILLER with total transverse moments of -6,800 ft-kips?	200 kips from tank #26 to tank #25	200 kips from tank #25 to tank #26	100 kips from tank #26 to tank #25	100 kips from tank #25 to tank #26	
4	4636	C	What will be released by pulling on line number 5?	Frapping line	Gripes	Tricing pendant	Lifeboat	D012SA
4	4637	B	How much drill water should be transferred from tanks #23 and #24 to tank #1 to level the COASTAL DRILLER, in transit at a draft of 10 feet 6 inches, if the total longitudinal moments are 1,700,000 ft-kips?	438 kips	451 kips	521 kips	537 kips	
4	4641	C	What is the change in longitudinal moments for the Coastal Driller if 2.0 feet of drill water is transferred from a full drill water tank #23 to an empty drill water tank #1?	15,565 foot-kips increase	7,585 foot-kips increase	15,565 foot-kips decrease	16,041 foot-kips decrease	
4	4643	B	What is the change in longitudinal moments for the Coastal Driller if 2.0 feet of drill water is transferred from a full drill water tank #23 to an empty drill water tank #6?	7,990 foot-kips increase	7,990 foot-kips decrease	8,502 foot-kips decrease	16,041 foot-kips decrease	
4	4644	D	The SS AMERICAN MARINER has on board 7240 tons of cargo with an LCG-FP of 273.20 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo.	LCG-FP 271.2 feet	LCG-FP 272.1 feet	LCG-FP 273.6 feet	LCG-FP 275.3 feet	ST-0165
4	4645	C	What is the change in the vertical moments (excluding free surface effects) for the COASTAL DRILLER if 2.0 feet of drill water is transferred from a full drill water tank #23 to an empty drill water tank #6?	253 foot-kips	56 foot-kips	-253 foot-kips	-411 foot-kips	
4	4647	A	What is the increase in transverse moments for the Coastal Driller if 2.0 feet of drill water is transferred from a full drill water tank #23 to an empty drill water tank #6?	4783 foot-kips	3446 foot-kips	2109 foot-kips	1234 foot-kips	
4	4651	B	If you wear extra clothing when entering the water after abandoning a MODU it will _____.	weigh you down	preserve body heat	reduce your body heat	make it more difficult to breathe	
4	4652	A	The SS AMERICAN MARINER has on board 3245 tons of cargo with an LCG-FP of 272.20 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo.	LCG-FP 267.7 feet	LCG-FP 268.4 feet	LCG-FP 269.2 feet	LCG-FP 270.6 feet	ST-0166
4	4653	B	What is the increase in transverse free surface moments for the COASTAL DRILLER if 2.0 feet of drill water is transferred from a full drill water tank #23 to an empty drill water tank #6?	9,172 foot-kips	3,914 foot-kips	2,109 foot-kips	932 foot-kips	
4	4655	B	The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the drill water in drill water tanks #6 and #25 are discharged, what is the new draft?	8.26 feet	10.66 feet	10.88 feet	11.10 feet	
4	4657	C	The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the contents of the four bulk tanks are back-loaded to a supply boat, what would be the new draft?	7.16 feet	10.31 feet	10.57 feet	11.19 feet	

4	4658	C	You are scheduled to load 3900 tons of cargo, 45 tons of crew effects and stores and 259 tons of fuel. Use the blue pages of the Stability Data Reference Book to determine the vessel's mean draft in fresh water.	18'-06"	18'-02"	17'-11"	17'-08"	
4	4661	D	The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the contents of the #1 drill water tank are discharged, what would be the new LCG?	118.46 feet AF0	119.44 feet AF0	119.98 feet AF0	120.42 feet AF0	
4	4662	D	Most covered lifeboats will right themselves after capsizing if the _____.	lower ballast tanks are filled with water	sea anchor is deployed to windward	fuel tanks are not less than half full	passengers are strapped to their seats	
4	4663	C	The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the contents of the #7 drill water tank are discharged, what would be the new TCG?	-0.15 foot	0.00 foot	0.15 foot	0.29 foot	
4	4665	D	The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the contents of #6 and #7 drill water tanks are discharged, what would be the new VCG?	47.21 feet	47.69 feet	48.41 feet	49.16 feet	
4	4667	C	The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the contents of #6 and #7 drill water tanks are discharged, what would be the new height of the longitudinal metacenter?	249.47 feet	250.16 feet	252.92 feet	253.90 feet	
4	4673	C	The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the contents of #6 and #7 drill water tanks are discharged, what is the new height of the center of gravity corrected for longitudinal free surface effects?	48.41 feet	49.16 feet	50.79 feet	51.40 feet	
4	4677	C	The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the contents of #6 and #7 drill water tanks are discharged, what is the new height of the center of gravity corrected for transverse free surface effects?	47.49 feet	49.16 feet	50.82 feet	50.93 feet	
4	4681	C	The COASTAL DRILLER is in transit loaded as shown in the Sample Load Form #1 (Rig Move). What would be the new KGT if, during the move, 170.9 kips of fuel oil is consumed from Diesel Oil Tanks #13 and #14?	48.98 feet	50.08 feet	50.70 feet	51.21 feet	
4	4683	D	What is the change in longitudinal moments for the Coastal Driller if 2.5 feet of drill water is discharged from drill water tank #23?	1,671 ft-kips	-161 ft-kips	-4,708 ft-kips	-20,052 ft-kips	
4	4685	A	What is the change in transverse moments for the Coastal Driller if 2.5 feet of drill water is discharged from drill water tank #23?	1,671 ft-kips	-161 ft-kips	-1,800 ft-kips	-2,982 ft-kips	
4	4687	C	What is the decrease in vertical moments for the Coastal Driller if 2.5 feet of drill water is discharged from a full drill water tank #23?	3,464 ft-kips	2,982 ft-kips	482 ft-kips	161 ft-kips	
4	4691	B	The COASTAL DRILLER, with no list, is at a true mean draft of 10 feet and 10 inches. LM is 1,699,463 ft-kips. Using only tanks #1, #25, and #26, how many kips of drill water must be transferred to level the jack-up?	Transfer 106.2 kips aft from #1 to #25 and #26	Transfer 53.1 kips each from #25 and #26 forward to #1	Transfer 612 kips from #25 to #26	Vessel is level; no need to transfer	

4	4693	D	The COASTAL DRILLER, with no trim, is at a true mean draft of 10 feet and 10 inches. TM is -6,800 ft-kips. Using only tanks #1, #25, and #26, how many kips of drill water must be transferred to level the jack-up?	Transfer 53.1 kips each from #25 and #26 forward to #1	Transfer 100 kips from #26 to #25	Transfer 200 kips from #25 to #26	Transfer 100 kips from #25 to #26	
4	4697	D	A tank with a volume of 2,000 cubic feet is pressed with fresh water weighing 62.4 pounds per cubic foot. What is the weight, in kips, of the liquid?	54.4 kips	64.7 kips	95.8 kips	124.8 kips	
4	4701	D	After you activate your emergency position indicating radio beacon, you should _____.	turn it off for five minutes every half-hour	turn it off and on at five-minute intervals	turn it off during daylight hours	leave it on continuously	
4	4703	D	A jack-up 210 feet in length is level during transit. The LCF is 140 feet aft of the bow. How much weight should be applied at the stern to re-level the jack-up if 75 kips is applied at the bow?	50 kips	75 kips	100 kips	150 kips	
4	4705	C	What is the weight of 100 barrels of 17 pound per gallon drilling mud?	24.9 kips	41.5 kips	71.4 kips	93.0 kips	
4	4706	B	You are making a heavy lift with the jumbo boom. Your vessel displaces 7940 T. The 45-ton weight is on the pier and its center is 60' to starboard of the centerline. The head of the boom is 110' above the base line and the center of gravity of the lift when stowed on deck will be 50' above the base line. As the jumbo boom takes the strain the ship lists to 4.5°. What is the GM with the cargo stowed?	4.82	4.64	4.3	3.97	
4	4707	A	While loaded as shown in the COASTAL DRILLER sample load form #3 (drilling), 50 kips of tubulars are discharged from the cantilever starboard pipe racks. What is the change in the vessel's LCG?	0.23 foot forward	0.40 foot forward	0.64 foot forward	1.02 feet forward	
4	4711	A	While loaded as shown in the COASTAL DRILLER sample load form #3 (drilling), 50 kips of tubulars are discharged from the cantilever starboard pipe racks. What is the change in the vessel's TCG?	0.048 foot port	0.048 foot starboard	1.020 feet port	1.020 feet starboard	
4	4713	C	When the COASTAL DRILLER is loaded as shown in the sample load form #3 (drilling), the hook load is placed in the pipe racks. What would be the new variable load?	2,381.0 kips	3,381.0 kips	3,658.8 kips	4,381.0 kips	
4	4715	D	Sea water remaining in the preload tanks of the COASTAL DRILLER after the preload has been dumped shall be entered in the load form as _____.	basic load	fixed load	preload	liquid variable load	
4	4716	D	What is the purpose of tricing pendants?	They have the same function as frapping lines.	They are safety lines for personnel inside the lifeboat.	They slow the descent of the lifeboat.	They hold the lifeboat alongside the embarkation deck.	
4	4717	C	The COASTAL DRILLER is loaded as shown in the sample load from #2 (preload). All of the preload is dumped with the exception of 50 kips in preload tank #28. What is the new LCG?	119.11 feet AF0	119.44 feet AF0	119.68 feet AF0	120.11 feet AF0	
4	4718	B	The Sailing Plan, required by vessels participating in AMVER, must be sent _____.	prior to departure	within a few hours before or after departure	within 12 hours of departure	within 24 hours of departure	

4	4723	D	The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). What is the new trim angle if 500 kips of weight are shifted aft 60 feet?	2.02 degrees by the stern	1.51 degrees by the stern	0.98 degrees by the stern	0.61 degrees by the stern	
4	4725	B	The COASTAL DRILLER is loaded as shown in Sample Load Form #3 (Rig Move). What would be the new sum of vertical moments for the liquid variables if the entire contents of tank #20 are transferred to tank #13?	2,365 ft-kips	2,244 ft-kips	2,195 ft-kips	170 ft-kips	
4	4727	C	The COASTAL DRILLER is loaded as shown in Sample Load Form #3 (Drilling). What would be the new sum of longitudinal moments for the liquid variables if the entire contents of tank #19 are transferred to tank #13?	12,344 ft-kips	173,493 ft-kips	181,174 ft-kips	1,929,523 ft-kips	
4	4733	D	In the COASTAL DRILLER, LCG is obtained from the sum of the longitudinal moments by _____.	adding the sum of the weights	subtracting the sum of the weights	multiplying by the sum of the weights	dividing by the sum of the weights	
4	4734	C	Seawater may be used for drinking _____.	if gathered during or immediately after a hard rain	at a maximum rate of two ounces per day	under no conditions	after mixing with an equal quantity of fresh water	
4	4735	D	In the COASTAL DRILLER, TCG is obtained from the sum of the transverse moments by _____.	adding the sum of the weights	subtracting the sum of the weights	multiplying by the sum of the weights	dividing by the sum of the weights	
4	4737	D	In the COASTAL DRILLER, VCG is obtained from the sum of the vertical moments by _____.	adding the sum of the weights	subtracting the sum of the weights	multiplying by the sum of the weights	dividing by the sum of the weights	
4	4741	D	The COASTAL DRILLER is observed to be level at a draft of 10 feet 6 inches. At the same time, the calculated load form shows the displacement to be 13,445 kips. What is the weight of the missing load?	46 kips	84 kips	189 kips	217 kips	
4	4742	C	You are scheduled to load 4700 tons of cargo, 45 tons of crew effects and stores and 323 tons of fuel. Use the blue pages of the Stability Data Reference Book to determine the vessel's mean draft in fresh water.	19'-00"	19'-03"	19'-07"	20'-01"	
4	4743	B	The COASTAL DRILLER is observed to be level at a draft of 10 feet 6 inches. At the same time, the calculated load form shows the displacement to be 13,445 kips, total longitudinal moments 1,613,466 foot-kips, and total transverse moments -10,000 foot-kips. What is the longitudinal location of the missing load?	46 feet AFO	84 feet AFO	189 feet AFO	217 feet AFO	
4	4744	D	You operate the lever shown when the lifeboat is _____.	in the secured position	at the embarkation deck	being lowered to sea level	waterborne	D013SA
4	4745	C	While loaded as shown in the COASTAL DRILLER sample load form #3 (drilling), all of the casing is discharged. What is the change in LCG?	1.98 feet forward	1.95 feet forward	0.02 foot forward	0.02 foot aft	
4	4746	B	The SS AMERICAN MARINER is ready to bunker with drafts of FWD 12'-07", AFT 16'-01". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction.	1.30 feet	1.07 foot	0.96 foot	0.82 foot	ST-0167

4	4747	B	The COASTAL DRILLER is observed to be level at a draft of 10 feet 6 inches. At the same time, the calculated load form shows the displacement to be 13,445 kips, total longitudinal moments 1,613,466 foot-kips, and total transverse moments -10,000 foot-kips. What is the transverse location of the missing load?	46 feet port of the centerline	46 feet starboard of the centerline	84 feet port of the centerline	84 feet starboard of the centerline	
4	4748	B	The SS AMERICAN MARINER has on board 3885 tons of cargo with an LCG-FP of 278.45 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo.	LCG-FP 267.7 feet	LCG-FP 268.4 feet	LCG-FP 269.2 feet	LCG-FP 270.6 feet	ST-0168
4	4751	A	Because there is a possibility of fuel oil being discharged overboard from a full fuel oil tank, it is decided to transfer 25 kips from tank #14 to tank #20. See COASTAL DRILLER Sample Load Form #1 (Rig Move). What would be the change in longitudinal moments with this transfer?	565 ft-kips	900 ft-kips	2603 ft-kips	3168 ft-kips	
4	4753	D	Because there is a possibility of fuel oil being discharged overboard from a full fuel oil tank, it is decided to transfer 25 kips from tank #14 to tank #13. See COASTAL DRILLER Sample Load Form #1 (Rig Move). What would be the change in transverse moments with this transfer?	56 ft-kips	979 ft-kips	1035 ft-kips	2010 ft-kips	
4	4755	C	Because there is a possibility of fuel oil being discharged overboard from a full fuel oil tank, it is decided to transfer 25 kips from tank #14 to tank #13. See COASTAL DRILLER Sample Load Form #1 (Rig Move). What would be the change in vertical moments with this transfer?	81 ft-kips increase	31 ft-kips increase	26 ft-kips decrease	47 ft-kips decrease	
4	4757	C	Because there is a possibility of fuel oil being discharged overboard from a full fuel oil tank, it is decided to transfer 25 kips from tank #14 to tank #13. See COASTAL DRILLER Sample Load Form #1 (Rig Move). What would be the change in longitudinal free surface moments?	1492 ft-kips increase	1034 ft-kips increase	674 ft-kips increase	404 ft-kips increase	
4	4761	A	Because there is a possibility of fuel oil being discharged overboard from a full fuel oil tank, it is decided to transfer 25 kips from tank #14 to tank #13. See COASTAL DRILLER Sample Load Form #1 (Rig Move). What would be the change in transverse free surface moments?	1492 ft-kips	674 ft-kips	404 ft-kips	270 ft-kips	
4	4763	C	The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the entire contents of the port pipe rack are back-loaded to an offshore supply vessel, how much drill water would have to be transferred between tanks 6 and 7 to level the vessel in list?	47.2 kips tank #7 to tank #6	23.6 kips tank #7 to tank #6	23.6 kips tank #6 to tank #7	47.2 kips tank #6 to tank #7	
4	4764	B	You are scheduled to load 3700 tons of cargo, 45 tons of crew effects and stores and 427 tons of fuel. Use the blue pages of the Stability Data Reference Book to determine the vessel's mean draft in salt water.	17'-01"	17'-05"	17'-10"	18'-00"	

4	4767	D	The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the entire contents of the port pipe rack are back-loaded to an offshore supply vessel, how much drill water would have to be transferred from tank #1 to tank #26 to level the vessel in trim?	62.7 kips	64.4 kips	111.4 kips	114.9 kips	
4	4771	C	The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the entire contents of bulk tanks #2 and #3 are back-loaded to an offshore supply vessel, what would be the new draft?	11.04 feet	10.88 feet	10.72 feet	9.02 feet	
4	4773	D	The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the entire contents of bulk tanks #2 and #3 are back-loaded to an offshore supply vessel, what longitudinal moment would have to be created to level the unit in trim at the new draft?	25,846 ft-kips	17,119 ft-kips	8,727 ft-kips	1,788 ft-kips	
4	4775	C	The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the entire contents of bulk tanks #2 and #3 are back-loaded to an offshore supply vessel, what transverse moment would have to be created to level the unit in list at the new draft?	-3,604 ft-kips	-4 ft-kips	3,470 ft-kips	7,088 ft-kips	
4	4777	B	The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). While in field transit, the wind speeds are predicted to increase above 70 knots. What would be the new KGL if the legs are lowered to the recommended value?	50.65 feet	37.00 feet	36.53 feet	13.65 feet	
4	4778	B	The SS AMERICAN MARINER has on board 5540 tons of cargo with an LCG-FP of 272.20 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo.	LCG-FP 266.5 feet	LCG-FP 267.8 feet	LCG-FP 268.4 feet	LCG-FP 269.2 feet	ST-0169
4	4781	B	The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). While in field transit, the wind speeds are predicted to increase above 70 knots. What would be the change in KGL if the legs are lowered to the recommended value?	12.75 feet	13.65 feet	59.30 feet	60.50 feet	
4	4783	B	The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). What is the margin on the maximum allowable KG if winds remain less than 70 knots?	0.00 feet	14.35 feet	14.82 feet	65.00 feet	
4	4784	A	If there's a fire aboard your vessel, you should FIRST _____.	sound the alarm	notify the Coast Guard	have passengers put on life preservers	cut off air supply to the fire	
4	4785	A	What should you do with your emergency position indicating radio beacon if you are in a liferaft in a storm?	Bring it inside the liferaft and leave it on.	Bring it inside the liferaft and turn it off until the storm passes.	Leave it outside the liferaft and leave it on.	Leave it outside the liferaft but turn it off.	
4	4786	B	Which number indicates the hydrostatic release?	3	6	7	10	D015SA
4	4787	A	The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). How much more variable load in kips can be placed on the unit if winds increase to greater than 70 knots?	0 kips	200 kips	600 kips	1,000 kips	

4	4791	A	The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). How much more variable load in kips can be placed on the unit if winds remain less than 70 knots?	0 kips	200 kips	600 kips	1,000 kips	
4	4793	B	The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). What is the margin on the maximum allowable KG if winds increase to greater than 70 knots, and the TOC is changed to the recommended value?	0.0 foot	1.0 foot	37.0 feet	38.0 feet	
4	4795	C	The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). What is the new LCG if the entire contents of drill water tanks 6 and 7 are discharged?	118.20 feet	119.44 feet	120.10 feet	121.36 feet	
4	4797	A	The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). What is the new TCG if the entire contents of drill water tanks 6 and 7 are discharged?	-0.23 foot	0.00 foot	0.23 foot	0.54 foot	
4	4801	C	The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). What is the new VCG if the entire contents of drill water tanks 6 and 7 are discharged?	38.00 feet	48.38 feet	49.16 feet	65.00 feet	
4	4805	D	The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). What is the new Longitudinal Free Surface Correction (FSCL) if the entire contents of drill water tanks 6 and 7 are discharged?	2.24 feet	2.14 feet	2.10 feet	1.63 feet	
4	4807	D	The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). What is the new transverse free surface correction (FSCT) if the entire contents of drill water tanks 6 and 7 are discharged?	2.24 feet	2.14 feet	2.10 feet	1.67 feet	
4	4811	B	The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). What is the value of KMT if the entire contents of drill water tanks 6 and 7 are discharged?	135.91 feet	136.38 feet	136.62 feet	136.89 feet	
4	4812	A	The SS AMERICAN MARINER is ready to bunker with drafts of FWD 21'-04", AFT 26'-04". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction.	0.54 ft	0.62 ft	0.80 ft	0.85 ft	ST-0170
4	4813	C	The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). What is the value of KML if the entire contents of drill water tanks 6 and 7 are discharged?	253.90 feet	253.24 feet	252.92 feet	252.24 feet	
4	4814	D	You are scheduled to load 3900 tons of cargo, 45 tons of crew effects and stores and 359 tons of fuel. Use the blue pages of the Stability Data Reference Book to determine the vessel's mean draft in fresh water.	19'-00"	18'-07"	18'-04"	18'-01"	
4	4815	D	What is the maximum amount of variables that may be taken aboard the COASTAL DRILLER while loaded as shown in the Sample Load Form #3 (drilling)?	1000 kips	681 kips	89 kips	0 kips	

4	4833	A	To keep injured survivors warm in the water after abandoning a MODU, they should _____.	be placed in the middle of a small circle formed by the other survivors in the water	float on their backs with their arms extended for maximum exposure to the air	remove their life preservers and hold on to the uninjured survivors	sip seawater at intervals of fifteen minutes	
4	4837	B	When the bypass valve of a self-contained breathing apparatus is opened, the mainline valve should be _____.	completely open	completely closed	pinched to check the air flow	immediately disconnected	
4	4847	C	The rated operating time of a self-contained breathing device may be reduced in actual use because of _____.	pressure differences in the atmosphere	the length of the hose attached to the facepiece	the physical exertion of the person wearing the device	spaces containing poisonous vapors	
4	4851	D	The self-contained breathing device should not be used in which situation?	Oxygen deficient spaces	Compartments containing poisonous vapors	Fighting fires that produce heavy smoke	Underwater search	
4	5031	A	For the purposes of the International Rules of the Road, a jack-up drilling rig under tow is considered to be a _____.	vessel	non-displacement vessel	power-driven vessel	limited vessel	
4	5033	D	For the purposes of the International Rules of the Road, a non-self-propelled, semisubmersible drilling unit under tow is considered to be a _____.	power-driven vessel	limited vessel	non-displacement vessel	vessel	
4	5035	A	When would a jack-up drilling rig be considered "underway" under the International Rules of the Road?	When it is being towed to a new location	When it is elevated and taking on preload	When it is elevated and engaged in drilling	When it is moored to a dock in the shipyard	
4	5037	A	Where will you find the requirements for the signals that must be sounded by a mobile offshore drilling unit that is being towed through an area of restricted visibility?	COLREGS	MMS Rules	SOLAS Convention	Coast Pilot	
4	5038	D	The SS AMERICAN MARINER has drafts of: FWD 22'-03", AFT 25'-05". Use the white pages of the Stability Data Reference Book to determine the drafts if you ballast the forepeak with 97 tons of seawater.	FWD 22'-10.7", AFT 25'-00.9"	FWD 22'-11.3", AFT 25'-00.3"	FWD 22'-11.9", AFT 24'-11.7"	FWD 23'-00.5", AFT 24'-11.1"	
4	5041	D	When must a MODU display navigation lights while underway?	Only between sunrise and sunset	At all times while being towed	Only when other vessels are in sight	Whenever visibility is restricted	
4	5042	C	What is the meaning of the signal SA T1035 RQ when sent by the International code of Signals?	The longitude is 10°35'.	I am altering course to 103.5°T.	Can you proceed at 1035 local time?	Is the latitude 10°35'?	
4	5045	D	Your jack-up is being towed along a shipping channel. You are concerned that a vessel that is overtaking you is coming too close to pass safely. You must _____.	broadcast a Mayday message	prepare the survival craft for launching	sound the abandon unit signal	sound five or more short blasts on the whistle	
4	5047	A	A jack-up drilling rig being towed must _____.	turn off all lights that interfere with the navigation lights	turn on all available working lights on deck	ring the bell rapidly for five seconds once a minute	display two black diamonds in a vertical line during the day	
4	5053	B	Which shape shown would be displayed by a mobile offshore drilling unit that is being towed more than 200 meters astern of a towing vessel?	A	B	C	D	DIAGRAM 16
4	5055	B	A mobile offshore drilling unit will show the day-shape in DIAGRAM 10 to indicate that it is _____.	at anchor	being towed	aground	drilling	
4	5057	D	A mobile offshore drilling unit under tow is approaching a fog bank. When should fog signals be started?	When the towing vessel enters the fog	When the drilling rig enters the fog	When the towing vessel can no longer be seen from the rig	Immediately	

4	5061	D	During a move to a new location, a jack-up drilling unit with personnel on board is towed through a heavy rainstorm. What signal must be sounded by the drilling rig when visibility is restricted?	One prolonged blast	Two prolonged blasts	One prolonged and two short blasts	One prolonged and three short blasts	
4	5062	D	You are making a heavy lift with the jumbo boom. Your vessel displaces 8530 T. The 40-ton weight is on the pier and its center is 65' to starboard of the centerline. The head of the boom is 115' above the base line and the center of gravity of the lift when stowed on deck will be 50' above the base line. As the jumbo boom takes the strain the ship lists to 5°. What is the GM with the cargo stowed?	2.96 ft	3.18 ft	3.46 ft	3.77 ft	
4	5063	C	What signal must be sounded by a vessel towing a mobile offshore drilling unit through an area of restricted visibility?	Two prolonged blasts	Five or more short blasts	One prolonged and two short blasts	One prolonged and three short blasts	
4	5065	A	Under what condition are you allowed to depart from the rules of the road?	To avoid immediate danger	When authorized by the rig superintendent	To comply with an operator's requirement	Under no conditions	
4	5067	A	While a MODU is underway, a look-out must be maintained _____.	at all times	only during periods of restricted visibility	only when other vessels are present	only during the hours of darkness	
4	5068	C	The SS AMERICAN MARINER is ready to bunker with drafts of FWD 19'-00", AFT 24'-00". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction.	0.62 foot	0.80 foot	0.85 foot	0.99 foot	ST-0171
4	5071	B	A mobile offshore drilling unit is on the waters of the U.S. Outer Continental Shelf. It has a length of 220 feet and a breadth of 190 feet. Where must the obstruction lights be located?	At the top of the drill mast	On each corner of the rig	At the bow of the rig	At the bow and stern of the rig	
4	5073	D	An obstruction light on a mobile offshore drilling unit on the waters of the U.S. Outer Continental Shelf, shall have a lens that is visible over an arc of _____.	60°	90°	180°	360°	
4	5075	C	What lighting characteristic is required of an obstruction light on a mobile offshore drilling unit on the waters of the U.S. Outer Continental Shelf?	Fixed	Flashing	Quick-flashing	Occulting	
4	5077	C	The requirements for obstruction lights on mobile offshore drilling units apply on all waters _____.	outside the boundary lines that are covered by International Rules of the Road	outside the lines of demarcation that are covered by the U.S. navigational rules	over the Outer Continental Shelf and on waters under the jurisdiction of the United States	over the prohibited zone defined in the Oil Pollution Control Act of 1961	
4	5081	A	What color are obstruction lights on mobile offshore drilling units that are located on the waters of the U.S. Outer Continental Shelf seaward of the line of demarcation?	White	Red	Yellow	Blue	
4	5083	A	When a mobile offshore drilling unit on the waters of the U.S. Outer Continental Shelf has more than one obstruction light, the lights must be operated to flash _____.	at the same time	in sequence at intervals of five seconds	in sequence at intervals of ten seconds	in sequence at intervals of fifteen seconds	
4	5085	B	A mobile offshore drilling unit must display obstruction lights when it is on the waters over the Outer Continental Shelf and is _____.	under tow	fixed to the seabed	underway	All of the above	
4	5087	D	What agency is responsible for enforcing the rules for obstruction lights on mobile offshore drilling units?	Minerals Management Service	Corps of Engineers	Department of Energy	U.S. Coast Guard	

4	5091	B	Obstruction lights on mobile offshore drilling units on the waters of the U.S. Outer Continental Shelf must be displayed _____.	at all times	between sunset and sunrise	whenever visibility is restricted	whenever vessels approach within one-half mile	
4	5092	B	You are scheduled to load 3200 tons of cargo, 45 tons of crew effects and stores and 259 tons of fuel. Use the blue pages of the Stability Data Reference Book to determine the vessel's mean draft in fresh water:	17'-00"	16'-09"	16'-06"	16'-04"	
4	5093	A	A jack-up drilling unit elevated on the Outer Continental Shelf must have a fog horn that will sound _____.	a 2-second blast every 20 seconds	a 4-second blast every 20 seconds	an 8-second blast every 30 seconds	a 10-second blast every 30 seconds	
4	5094	B	The mechanism that will release the tricing pendant, as shown, is _____.	the fore and aft gripes	the McCluny hook	a quick release lever	a 3/4" shackle	D012SA
4	5095	A	Who has the ultimate responsibility for the safety of a mobile offshore drilling unit while it is being towed to a new location?	The rig mover	The Pilot	The marine surveyor	The Offshore Installation Manager	
4	5097	B	To have the ultimate authority for a mobile offshore drilling unit while it is under tow, a rig mover must _____.	hold an Able Seaman certificate and be designated as the person in charge of the rig	hold a license as Offshore Installation Manager and be held as the person in charge of the rig	be certified by an approved classification society and be designated as the person in charge of the rig	be certified by the Minerals Management Service and be designated as the person in charge of the rig	
4	5098	B	The SS AMERICAN MARINER is ready to bunker with drafts of FWD 20'-04", AFT 23'-06". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction.	0.62 foot	0.80 foot	0.85 foot	0.99 foot	ST-0172
4	5101	D	When a marine surveyor is employed to assist in the move of a mobile offshore drilling unit, he _____.	becomes responsible for the safe movement of the rig	relieves the Offshore Installation Manager at the moment the rig is free from the bottom	must be designated as the person in charge of the rig	is a specialist who is hired to provide advice and guidance on aspects of the move	
4	5103	B	A hurricane has recurved to the northeast and its forward speed is 20 knots. Your MODU is located 600 miles northeast of the hurricane's center. How long will it take for the hurricane center to reach your position if it holds its present course and speed?	10 hours	30 hours	50 hours	80 hours	
4	5105	A	The edge of a hurricane has overtaken your MODU in the Gulf of Mexico and the northwest wind of a few hours ago has shifted to the west. This is an indication that you are located in the _____.	navigable semicircle	dangerous semicircle	low pressure area	eye of the storm	
4	5113	C	A tropical storm is building strength some distance from your MODU. Waves are coming from the east, with periods increasing from 5 seconds to 15 seconds. The swell is from the east. Where was the storm when these new swells were generated?	To the north of you	To the south of you	To the east of you	To the west of you	

4	5115	A	What kind of conditions would you observe as the eye of a storm passes over your MODU's position?	Huge waves approaching from all directions, clearing skies, light winds, and an extremely low barometer	Flat calm seas, heavy rain, light winds, and an extremely low barometer	Flat calm seas, heavy rain, light winds, and high pressure	Huge waves approaching from all directions, clearing skies, light winds, and high pressure	
4	5121	D	What danger is presented if a waterspout passes over a MODU?	Heavy rains could cause downflooding.	Visibility could be restricted by low clouds.	Large waves could cause structural damage.	Personnel may be injured by loose deck gear blown by the wind.	
4	5122	C	You are scheduled to load 3700 tons of cargo, 45 tons of crew effects and stores and 427 tons of fuel. Use the blue pages of the Stability Data Reference Book to determine the vessel's mean draft in fresh water.	17'-01"	17'-00"	17'-10"	18'-00"	
4	5123	C	In MODU construction, bulkheads in the quarters are generally _____.	structural	watertight	non-structural	continuous	
4	5124	A	The SS AMERICAN MARINER is ready to bunker with drafts of FWD 14'-04", AFT 18'-08". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction.	1.05 feet	1.15 feet	1.25 feet	1.31 feet	ST-0173
4	5125	A	A MODU with the TCG off the longitudinal centerline inclines to an angle of _____.	list	heel	trim	loll	
4	5127	A	In illustration D041DG, the symbol for displacement is _____.	1	2	3	4	
4	5131	D	In illustration D041DG symbol 1 refers to _____.	change of draft	centerline	angle of inclination	displacement	
4	5133	D	In illustration D041DG, the symbol for the reference from which the height of the center of gravity is measured is _____.	5	4	3	2	
4	5135	D	In the illustration, symbol 2 represents _____.	displacement	beam limit	bilge level	baseline	D041DG
4	5137	D	When a floating MODU inclines to an angle slightly greater than the angle of loll, she will _____.	capsize	incline further	flop to the other side	return to the angle of loll	
4	5153	B	A semisubmersible floating in sea water displaces 20,000 long tons. She has vertical moments of 1,000,000 foot-long tons. What is the change in KG if 500 long tons are placed aboard at a KG of 120 feet?	1.22 feet upward	1.71 feet upward	1.75 feet upward	2.93 feet upward	
4	5155	D	A MODU displacing 10,000 long tons with KG 20.0 feet, uses its crane to lift a 40 long ton load from dockside and place it on board at a VCG of 5.0 feet. When lifting, the head of the crane boom is 50.0 feet above the keel. During the lift, what is the apparent increase in KG?	0.02 foot	0.12 foot	0.18 foot	0.20 foot	
4	5156	B	Your non-oceangoing vessel is required to have a fixed piping system to discharge oily mixtures ashore. What is required at each outlet of this system?	A 5-gallon can or a fixed containment system	A stop valve	A non-return valve	A means to stop each pump	
4	5157	B	A MODU displacing 10,000 tons uses its crane to lift a 20 ton load, already aboard, to a height of 5 feet above the deck. When lifting, the head of the crane boom is 50 feet above the load. What is the change in KG?	No change	0.1 foot	0.2 foot	1.0 foot	

4	5163	B	The DEEP DRILLER is loaded as shown in the Sample Load Form #3 (Preparing to Drill). If all the liquid mud (see table 8) is dumped, what would be the new height of the longitudinal metacenter?	61.13 feet	61.19 feet	61.22 feet	62.94 feet	
4	5175	B	The DEEP DRILLER, in transit at a seawater draft of 19 feet, enters a fresh water port. What is the new draft?	19.03 feet	19.40 feet	19.63 feet	21.16 feet	
4	5177	C	The DEEP DRILLER departs a fresh water port at a draft of 20 feet. What will be the draft in sea water?	19.0 feet	19.3 feet	19.6 feet	20.4 feet	
4	5181	B	The DEEP DRILLER departs a fresh water port at a draft of 19.5 feet. What will be the draft in sea water?	18.7 feet	19.1 feet	19.4 feet	19.8 feet	
4	5183	C	The DEEP DRILLER departs a fresh water port at a draft of 20.5 feet. What will be the draft in sea water?	18.2 feet	19.4 feet	19.7 feet	22.8 feet	
4	5191	A	While being towed at a 19.5 foot draft, the DEEP DRILLER experiences single amplitude pitching of 7.5 degrees with an 8 second period. You should _____.	continue towing operations and carefully monitor vessel motions	alter course into the wind to improve motion characteristics	ballast the rig to a 45 foot draft and check the vessel motion at the new draft	ballast the rig to a 60 foot draft and check vessel motion at the new draft	
4	5192	D	There is a fire aft aboard your vessel. To help fight the fire, you should _____.	put the wind off either beam	put the stern into the wind and decrease speed	put the stern into the wind and increase speed	head the bow into the wind and decrease speed	
4	5193	C	The DEEP DRILLER is being towed at a 20 foot draft. Vessel motions are within acceptable limits, but the waves begin to hit the horizontal braces. You should _____.	continue on course at the same draft	ballast to a 60 foot draft and continue on course	change course to reduce the wave impact	shorten the tow wire for a smoother ride	
4	5195	A	The DEEP DRILLER is under tow at a 20 foot draft. The rig motions are close to exceeding the limits for critical pitch and roll. The rig is also experiencing occasional pounding on the horizontal braces. In this situation you should _____.	ballast down to a 45 foot draft and check vessel motions	wait until pitch and roll exceed the limits before ballasting down	ballast up to a 15 foot draft and check vessel motions	shorten the tow wire for a smoother tow	
4	5196	A	You are hoisting a heavy lift with the jumbo boom. Your vessel displaces 8560 T. The 45-ton weight is on the pier and its center is 65' to starboard of the centerline. The head of the boom is 95' above the base line and the center of gravity of the lift when stowed on deck will be 55' above the base line. As the jumbo boom takes the strain the ship lists to 5.5°. What is the GM with the cargo stowed?	3.74 ft.	3.96 ft.	4.16 ft.	4.35 ft.	
4	5197	C	The DEEP DRILLER, at a draft of 60 feet, has VM of 942,120 ft-tons, and FSML of 36,235 ft-tons. What is the KGL?	52.0 feet	53.0 feet	54.0 feet	55.0 feet	
4	5201	A	If the low side bilge pump fails and the high side bilge pump has insufficient suction to dewater the low side of the COASTAL DRILLER when afloat, you should use the _____.	saltwater eductor system	raw water tower pumps	mud pumps	preload pumps	
4	5203	D	Among the possible causes of unexpected rapid increasing inclination of the floating COASTAL DRILLER is _____.	consumption of on board liquids	miscalculation of loads	external environmental forces	flooding due to hull damage	
4	5205	B	Among the possible causes of unexpected constant inclination of the floating COASTAL DRILLER is _____.	consumption of on board liquids	miscalculation of loads	liquid transfer through open valves	flooding due to hull damage	

4	5223	B	When floating, the appropriate leg horizontal must be aligned in the center of the _____.	center of each lower hull guide	center of each upper guide structure	top of the jack house	bottom of the hull	
4	5225	D	If the cause of a sudden severe list or trim is negative initial stability, counterflooding into empty tanks may _____.	increase the righting moment	cause an increase in the righting arm	bring the unit to an upright equilibrium position	cause the unit to flop to a greater angle	
4	5232	C	Fusible-link fire dampers are operated by _____.	a mechanical arm outside the vent duct	electrical controls on the bridge	the heat of a fire melting the link	a break-glass and pull-cable system	
4	5233	C	During counterflooding to correct a severe list or trim aggravated by an off-center load, a MODU suddenly takes a list or trim to the opposite side. You should _____.	continue counterflooding in the same direction	continue counterflooding, but in the opposite direction	immediately stop counterflooding	deballast from the low side	
4	5234	B	The SS AMERICAN MARINER is ready to bunker with drafts of FWD 15'-05", AFT 21'-03". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction.	1.05 feet	1.15 feet	1.25 feet	1.31 feet	ST-0174
4	5235	A	If a MODU takes a sudden severe list or trim from an unknown cause, you should FIRST _____.	determine the cause before taking countermeasures	assume the shift is due to off-center loading	counterflood on the side opposite the list or trim	assume the cause is environmental forces	
4	5245	C	To maintain a high state of readiness against the possibility of damage and subsequent flooding while aboard the DEEP DRILLER, you should _____.	post a watch in the pump room	keep tanks no more than half filled	cap sounding tubes except when in use	keep bilge pumps operating continuously	
4	5247	B	In case of major damage to column C1P while the DEEP DRILLER is on location, you should pump from port-forward lower-hull tanks using _____.	all four ballast pumps	both port-side ballast pumps	saltwater service pump to supplement port-side ballast pumps	drill water pump to supplement port-side ballast pumps	
4	5261	A	The DEEP DRILLER, loaded as shown in Sample Load Form #4 (Drilling), suffers major damage which results in flooding in tank C1P. Your best countermeasure is to _____.	pump from 2P	pump from C1P	counterflood in 1P	counterflood in 10S	
4	5263	A	The DEEP DRILLER, loaded as shown in Sample Load Form #4 (Drilling), suffers major damage which results in flooding in tank C3S. Your best countermeasure is to _____.	pump from 9S	pump from C3S	counterflood in 1P	counterflood in 10S	
4	5265	B	The DEEP DRILLER, loaded as shown in Sample Load Form #4 (Drilling), suffers major damage which results in flooding in tank C1P. Pumping from tanks in the vicinity of the damage has proven ineffective. Your best countermeasure is to _____.	counterflood in 1P	counterflood in 10S	pump from C1P	pump from C3S	
4	5267	A	The DEEP DRILLER, loaded as shown in Sample Load Form #4 (Drilling), suffers major damage which results in flooding in tank C3S. Pumping from tanks in the vicinity of the damage have proven ineffective. Your best countermeasure is to _____.	counterflood in 1P	counterflood in 10S	pump from C1P	pump from C3S	
4	5271	B	The DEEP DRILLER, loaded as shown in Sample Load Form #5 (Survival), suffers major damage which results in flooding in tank C1P. Your best countermeasure is to pump from _____.	1P	3P	C1P	C2P	

4	5273	C	The DEEP DRILLER, loaded as shown in Sample Load Form #5 (Survival), suffers major damage which results in flooding in tank C3S. Your best countermeasure is to _____.	pump from 10S	counterflood in 1P	pump from 8S	pump from C3S	
4	5274	C	The type davits shown are _____.	round-bar davits	radial davits	gravity davits	quadrantal davits	D008SA
4	5275	B	In case of minor damage to lower-hull tank 1P while the DEEP DRILLER is in transit, you should pump from tank 1P using _____.	all four ballast pumps	both port-side ballast pumps	saltwater service pump to supplement port-side ballast pumps	drill water pump to supplement port-side ballast pumps	
4	5276	A	The SS AMERICAN MARINER has drafts of: FWD 18'-07", AFT 23'-03". Use the white pages of the Stability Data Reference Book to determine the drafts if you ballast the forepeak with 92 tons of seawater.	FWD 19'-04.9", AFT 22'-08.7"	FWD 19'-05.4", AFT 22'-08.0"	FWD 19'-05.7", AFT 22'-07.7"	FWD 19'-06.3", AFT 22'-07.1"	
4	5277	D	Failure of both port ballast pumps on the DEEP DRILLER prevents their use. To deballast from tank 1P, you may use the _____.	port saltwater service pump	port drill water pump	port bilge pumps	starboard ballast pump and the crossover system	
4	5281	A	The DEEP DRILLER suffers minor flooding of the port pump room while in transit. If both port bilge pumps fail to dewater the pump room, you may _____.	use port drill water pump	use port saltwater service pump	use port ballast pumps	use starboard ballast pumps and crossover system	
4	5283	A	The DEEP DRILLER suffers minor flooding of the starboard pump room while in transit. If both starboard bilge pumps fail to dewater the pump room, you may use _____.	starboard drill water pump	starboard saltwater service pump	starboard ballast pumps	port ballast pumps and crossover system	
4	5285	C	The DEEP DRILLER, loaded as shown in Sample Load Form #1 (Transit), suffers minor damage which results in flooding in tank 1P. You may pump from _____.	2P	C1P	1P	10S	
4	5286	C	A vessel is inclined at an angle of loll. In the absence of external forces, the righting arm (GZ) is _____.	positive	negative	zero	vertical	
4	5287	C	The DEEP DRILLER, loaded as shown in Sample Load Form #1 (Transit), suffers minor damage which results in flooding in tank 1S. You may pump from _____.	2S	C1S	1S	10P	
4	5297	D	Among the possible causes of unexpected rapidly increasing inclination of the DEEP DRILLER while in transit is _____.	consumption of on board variables	miscalculation of loads	external environmental forces	flooding due to lower-hull damage	
4	5301	C	The DEEP DRILLER is loaded as shown in the Sample Load Form #2 (Ballasting to Survival). What is the shift in VCG if 100.76 long tons of ballast are added to Ballast Tank #8S to replace the discharge of all bulk materials?	0.19 foot down	0.44 foot down	0.63 foot down	1.19 feet down	
4	5302	D	The SS AMERICAN MARINER is ready to bunker with drafts of FWD 17'-05", AFT 19'-07". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction.	0.62 foot	0.80 foot	0.85 foot	0.99 foot	ST-0175
4	5305	A	The COASTAL DRILLER, in ocean transit at a draft of 10 feet 6 inches with winds less than 70 knots, has a KGT of 50.6 feet and a KGL of 51.4 feet. The margin on the maximum allowable KG is _____.	13.6 feet	14.4 feet	40.0 feet	65.0 feet	

4	5307	D	The COASTAL DRILLER, in ocean transit at a draft of 10 feet 6 inches with winds greater than 70 knots, has a KGT of 38.7 feet and a KGL of 38.2 feet. The margin on the maximum allowable KG is _____.	26.8 feet	26.3 feet	1.8 feet	1.3 feet	
4	5308	A	Your drafts are: FWD 17'-09", AFT 21'-03". What is the KM based on the tables in the blue pages of the Stability Data Reference Book?	25.7 feet	26.0 feet	26.4 feet	26.8 feet	
4	5311	C	The COASTAL DRILLER, in field transit at a draft of 10 feet 0 inches with winds less than 70 knots, has a KGT of 39.0 feet and a KGL of 38.6 feet. The margin on the maximum allowable KG is _____.	3.0 feet	3.4 feet	26.0 feet	26.4 feet	
4	5312	C	As shown, the line indicated by number 4 is connected to the _____.	releasing gear	sea painter	McCluny hook	Fleming gear	D016SA
4	5313	A	The COASTAL DRILLER, in ocean transit at a draft of 10 feet 0 inches with winds greater than 70 knots, has a KGT of 39.0 feet and a KGL of 38.6 feet. The margin on the maximum allowable KG is _____.	2.6 feet	4.1 feet	26.3 feet	26.8 feet	
4	5314	C	The SS AMERICAN MARINER is ready to bunker with drafts of FWD 14'-04", AFT 18'-08". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction.	1.05 feet	1.15 feet	1.25 feet	1.31 feet	ST-0176
4	5315	A	The COASTAL DRILLER, in transit during a severe storm while at a draft of 9 feet 6 inches, has a KGT of 39.1 feet and a KGL of 39.9 feet. The margin on the maximum allowable KG is _____.	2.6 feet	3.4 feet	25.1 feet	25.9 feet	
4	5321	B	While the COASTAL DRILLER is in transit at a draft of 10 feet 6 inches, a severe storm is predicted within 12 hours. VM are 541,257 ft-kips, FSML are 32,000 ft-kips and FSMT are 24,000 ft-kips. How much should the KGL be lowered to satisfy the maximum allowable KG criteria?	23.04 feet	1.96 feet	0.62 foot	0.00 feet	
4	5323	D	While the COASTAL DRILLER is in transit at a draft of 10 feet 6 inches, a severe storm is predicted within 12 hours. VM are 520,462 ft-kips, FSML are 26,000 ft-kips, and FSMT are 25,000 ft-kips. How much should the KG corrected for free surface effects be lowered to satisfy the maximum allowable KG criteria?	26.90 feet	25.00 feet	1.90 feet	0.00 feet	
4	5325	B	While the COASTAL DRILLER is in transit at a draft of 10 feet 6 inches, a severe storm is predicted within 12 hours. VM are 546,462 ft-kips, FSML are 18,000 ft-kips, and FSMT are 32,000 ft-kips. How much should the KG corrected for free surface effects be lowered to satisfy the maximum allowable KG criteria?	22.66 feet	2.34 feet	1.32 feet	0.00 feet	
4	5327	D	While the COASTAL DRILLER is in transit at a draft of 10 feet 6 inches, a severe storm is predicted within 12 hours. GMT is 98.89 feet. How much should the KG corrected for free surface effects be lowered to satisfy the maximum allowable KG criteria?	3.66 feet	2.34 feet	1.32 feet	0.00 feet	

4	5341	A	For stronger leg support when the COASTAL DRILLER is elevated, locate a set of horizontal leg braces as near as possible to the _____.	center of each lower hull guide	center of each upper hull guide	top of the jack house	bottom of the hull	
4	5353	A	When preloading the COASTAL DRILLER, the maximum total weight shall not exceed _____.	21,497 kips	21,297 kips	17,700 kips	14,400 kips	
4	5354	D	You are scheduled to load 3200 tons of cargo, 45 tons of crew effects and stores and 323 tons of fuel. Use the blue pages of the Stability Data Reference Book to determine the vessel's mean draft in salt water.	17'-00"	16'-10"	16'-07"	16'-04"	
4	5357	D	During preloading or elevating the COASTAL DRILLER, jacking-up may continue if the total weight is less than _____.	21,497 kips	21,297 kips	17,700 kips	14,400 kips	
4	5361	A	The COASTAL DRILLER, when underway was loaded as shown in Sample Load Form #1 (Rig Move). It is now preloaded at minimum air gap waiting for all settling to take place. The preload, weighing 7,191.7 kips, has LM 870,196 ft-kips and TM 2,158 ft-kips. What is the bow leg reaction?	7,026 kips	7,099 kips	7,144 kips	7,180 kips	
4	5363	D	The COASTAL DRILLER, when underway was loaded as shown in Sample Load Form #1 (Rig Move). It is now preloaded at minimum air gap waiting for all settling to take place. The preload, weighing 7,191.7 kips, has LM 870,196 ft-kips and TM 2,158 ft-kips. What is the starboard leg reaction?	7,026 kips	7,099 kips	7,144 kips	7,180 kips	
4	5365	C	The COASTAL DRILLER, when underway was loaded as shown in Sample Load Form #1 (Rig Move). It is now preloaded at minimum air gap waiting for all settling to take place. The preload, weighing 7,191.7 kips, has LM 870,196 ft-kips and TM 2,158 ft-kips. What is the port leg reaction?	7,026 kips	7,099 kips	7,144 kips	7,180 kips	
4	5373	D	While preloading, the COASTAL DRILLER has a total weight of 21,401 kips. The LM are 2,560,416 ft-kips, and the TM are -6,206 ft-kips. What is the port leg reaction?	7,099 kips	7,134 kips	7,151 kips	7,203 kips	
4	5381	A	While preparing for a storm when elevated, the total weight of the COASTAL DRILLER is 14,150 kips, LM are 1,712,150 ft-kips, and TM are -9,905 ft-kips. The bow leg reaction is _____.	4,536 kips	4,716 kips	4,748 kips	4,866 kips	
4	5385	A	While preloading, the COASTAL DRILLER has a total weight of 21,401 kips. The LM are 2,560,416 ft-kips, and the TM are -6,206 ft-kips. What is the starboard leg reaction?	7,099 kips	7,134 kips	7,151 kips	7,203 kips	
4	5386	B	Which toxic gas is a product of incomplete combustion, and is often present when a fire burns in a closed compartment?	Carbon dioxide	Carbon monoxide	Nitric oxide	Hydrogen sulfide	
4	5387	D	Which toxic gas is a product of incomplete combustion, and is often present when a fire burns in a closed compartment?	Nitric oxide	Carbon dioxide	Hydrogen sulfide	Carbon monoxide	
4	5388	A	The most likely location for a liquid cargo fire to occur on a tanker would be _____.	in the pumproom	at the vent header	at the main deck manifold	the midships house	

4	5407	D	The COASTAL DRILLER is loaded as shown in the Sample Load Form #2 (Preload). What would be the LCG if the preload is dumped and the cantilever and drill floor are skidded aft, placing the rotary 34 feet aft of the transom?	114.06 feet AFO	119.44 feet AFO	123.75 feet AFO	125.91 feet AFO	
4	5411	B	The COASTAL DRILLER is loaded as shown in the Sample Load Form #2 (Preload). What will be the LCG if the preload is dumped?	118.51 feet AFO	119.44 feet AFO	120.62 feet AFO	121.53 feet AFO	
4	5412	A	The SS AMERICAN MARINER is ready to bunker with drafts of FWD 21'-04", AFT 26'-04". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction.	0.62 foot	0.80 foot	0.85 foot	0.99 foot	ST-0177
4	5413	B	The COASTAL DRILLER is loaded as shown in the Sample Load Form #2 (Preload). What would be the TCG if the preload is dumped and the cantilever and drill floor are skidded aft, placing the rotary 34 feet aft of the transom, and the drill floor is skidded 8 feet to port?	-0.52 foot	-0.33 foot	-0.17 foot	0.52 foot	
4	5415	C	The COASTAL DRILLER, loaded as shown in the Sample Load Form #2 (Preload), dumps the preload. However, 138.4 kips remained on board. The LM for the remaining preload is 17,992 ft-kips. What is the new LCG?	119.33 feet AFO	119.44 feet AFO	119.54 feet AFO	119.66 feet AFO	
4	5417	A	The COASTAL DRILLER, loaded as shown in the Sample Load Form #3 (Drilling), discharges the bulk in Bulk Tanks 1 and 2. What is the new LCG?	124.97 feet AFO	125.09 feet AFO	127.70 feet AFO	130.42 feet AFO	
4	5418	D	Small passenger vessels in coastwise service must carry approved _____.	life floats	inflatable buoyant apparatus	inflatable liferafts	Any of the above	
4	5421	D	The COASTAL DRILLER, loaded as shown in the Sample Load Form #3 (Drilling), discharges the bulk in Bulk Tanks 1 and 2. What is the new TCG?	-1.61 feet	-1.58 feet	0.43 feet	0.99 feet	
4	5423	B	The COASTAL DRILLER, loaded as shown in the Sample Load Form #3 (Drilling), dumps all the mud in pits 1, 2, 3, and 4. What is the new TCG?	-0.36 foot	-0.26 foot	0.31 foot	0.36 foot	
4	5425	C	The COASTAL DRILLER, loaded as shown in the Sample Load Form #3 (Drilling), dumps all the mud in pits 1, 2, 3, and 4. What is the new LCG?	122.02 feet AFO	125.03 feet AFO	125.63 feet AFO	131.46 feet AFO	
4	5427	B	The COASTAL DRILLER, loaded as shown in the Sample Load Form #4 (Storm), discharges all the bulk in the four bulk tanks. What is the new LCG?	115.79 feet AFO	119.18 feet AFO	119.44 feet AFO	126.68 feet AFO	
4	5431	D	The COASTAL DRILLER, loaded as shown in the Sample Load Form #4 (Storm), discharges all the bulk in the four bulk tanks. What is the new TCG?	-1.11 feet	-0.47 foot	1.07 feet	1.11 feet	
4	5433	D	It is vital to the safety of the elevated COASTAL DRILLER that the hull be kept above _____.	the charted water depth	the charted water depth plus tidal corrections	the still water level	wave action	

4	5434	C	You are hoisting a heavy lift with the jumbo boom. Your vessel displaces 5230 T. The 35-ton weight is on the pier and its center is 60' to starboard of the centerline. The head of the boom is 105' above the base line and the center of gravity of the lift when stowed on deck will be 42' above the base line. As the jumbo boom takes the strain the ship lists to 5°. What is the GM with the cargo stowed?	4.11	4.54	4.98	5.13	
4	5435	C	The COASTAL DRILLER is operating with a wave clearance of about 20 feet. The out-of-level alarm sounds and the unit is found to be inclined 0.5 degree bow down. The recommended course of action is to _____.	prepare to take action in case inclination increases	jack the hull up on the bow leg	jack the hull down on the aft two legs	transfer weight, such as drill water, toward the stern	
4	5441	A	The COASTAL DRILLER has suffered a casualty which requires an orderly evacuation of the unit using the lifeboats and liferafts. Among the items to accomplish in preparing to evacuate the unit is _____.	securing the unit as in preparation for a severe storm	distributing self-contained breathing devices	taking a soil sample of the bottom	All of the above	
4	5445	B	While drilling loaded as shown in Sample Load Form #4 (Drilling), the DEEP DRILLER suffers a sudden unexpected inclination to port and forward. Strong wind and high waves are from the starboard quarter. Among the possible causes, you should consider _____.	failure of mooring lines 1 or 2	failure of mooring lines 5 or 6	leak in ballast tank #2P	ballast tanks are equalizing into tank 1P	
4	5447	B	While drilling loaded as shown in Sample Load Form #4 (Drilling), the DEEP DRILLER suffers a sudden unexpected inclination to starboard and forward. Strong winds and high waves are from the port quarter. Among the possible causes, you should consider _____.	failure of mooring lines 3 or 4	failure of mooring lines 7 or 8	leak in ballast tank #2S	ballast tanks equalizing into tank 1S	
4	5449	D	The SS AMERICAN MARINER is ready to bunker with drafts of FWD 17'-06", AFT 20'-04". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction.	1.05 feet	1.15 feet	1.25 feet	1.31 feet	ST-0178
4	5451	B	While drilling loaded as shown in Sample Load Form #4 (Drilling), the DEEP DRILLER suffers a sudden unexpected inclination to starboard and aft. Strong wind and high waves are on the port bow. Among the possible causes, you should consider _____.	failure of mooring lines 5 or 6	failure of mooring lines 1 or 2	leak in ballast tank 9P	ballast tanks equalizing into tank 10S	
4	5455	C	What percentage of the breaking strength is the generally accepted safe operating load of an anchor cable?	10%	25%	35%	50%	
4	5457	D	The only wire rope termination which may be made in the field is _____.	swaged socket	thimbled mechanical splice	hand splice	spelter poured and resin sockets	
4	5461	A	Thirty-five percent of the breaking strength of an anchor cable is generally accepted as the _____.	safe operating load	normal operating tension	emergency working load	allowable storm load	
4	5462	C	The SS AMERICAN MARINER is ready to bunker with drafts of FWD 13'-10", AFT 16'-04". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction.	1.30 feet	1.17 foot	1.01 foot	0.91 foot	ST-0179
4	5463	C	A common class of wire rope used for mooring is the 6x19 class. What does the 6 represent?	Factor of safety	Number of wires per strand	Number of strands per wire rope	Number of wires in the core	

4	5465	D	A common class of wire rope used for mooring is the 6x37 class. What does the 37 represent?	Number of wires in the inner core	Number of strands per wire rope	Tensile strength of the wire	Number of wires per strand	
4	5467	D	What is an advantage of the 6x19 class of wire rope over the 6x37 class of wire rope of the same diameter?	Greater holding power	Better fatigue life	Resistance to elongation	Resistance to corrosion	
4	5471	A	What is an advantage of the 6x37 class of wire rope over the 6x19 class of wire rope of the same diameter?	Flexibility	Resistance to corrosion	Resistance to elongation	Lower weight per foot	
4	5473	B	Where do fatigue failures of wire rope mooring lines usually occur?	In the middle part of the line length	Near the socketed end fitting adjacent to the anchor	At the point where the line touches the bottom	At the place the anchor buoy is attached to the line	
4	5475	B	The primary purpose for using stud link chain in a mooring system on a rig is the _____.	stud link is more economical	stud keeps the chain from kinking	stud link chain is the lightest night design	stud link improves the anchor's holding power	
4	5477	D	Standards for fabrication and testing of chain on mobile offshore drilling units are provided by the _____.	Department of the Interior	U.S. Coast Guard	Minerals Management Service	American Petroleum Institute	
4	5479	A	The purpose of the inclining experiment on a vessel is to determine the _____.	location of the center of gravity of the light ship	position of the center of buoyancy	position of the metacenter	maximum load line	
4	5481	B	A common means of connecting shots of anchor chain in the field is to use a _____.	sprocket	Kenter link	swivel	end shackle	
4	5483	A	The idler sheave which directs and turns the anchor cable from a semisubmersible is known as the _____.	swivel fairlead	windlass wildcat	chain stopper	chain director	
4	5485	B	The maximum angular tolerance for a bent link of an anchor chain is _____.	1 degree	3 degrees	5 degrees	7 degrees	
4	5486	C	This illustration shows the correct method of securing a _____.	man-rope	frapping line	sea painter	lifeline	D009SA
4	5487	B	A measurement device for inspecting anchor chain is the _____.	slide rule	go-no-go gauge	derrick tape	amp probe	
4	5491	B	The American Petroleum Institute recommends that a new anchor chain should be inspected after being in service for _____.	1 year	3 years	5 years	10 years	
4	5493	B	The American Petroleum Institute recommends that connecting links and anchor shackles be inspected using _____.	visual examinations	magnetic particle inspection	dye penetrant inspection	x-ray inspection	
4	5495	A	Extended cyclical variations in tensions will cause an anchor chain to break due to _____.	fatigue	corrosion	distortion	abrasion	
4	5497	C	Which grade of anchor chain is generally used on floating drilling vessels?	Grade 1	Grade 2	Oil Rig Quality (stud link)	303S	
4	5501	A	What is a major disadvantage of Di-Lok chain compared with Oil Rig Quality (stud link) chain in floating drilling rig operations?	Shorter fatigue life	Higher weight	Lower strength	Greater expense	
4	5503	B	What are the two main types of stud link chain?	Oil Rig chain and Oil Field Stud Link chain	Flash-butt welded chain and Di-Lok chain	Flash-butt welded chain and Oil Rig chain	Oil Field Stud Link chain and Flash-butt welded chain	
4	5504	C	While signaling by flashing light you make an error. You should send _____.	RPT, then repeat the entire signal	EEE, then send the word correctly	the erase signal then continue the message with the last correctly spelled word	the correction signal and re-spell the word	
4	5505	D	Which problem is virtually impossible to detect during an in-service inspection of used mooring chain?	Cracks	Elongation	Loose studs	Fatigue	

4	5506	B	The SS AMERICAN MARINER has drafts of: FWD 13'-05", AFT 21'-03". Use the white pages of the Stability Data Reference Book to determine the drafts if you ballast the forepeak with 88 tons of seawater.	FWD 14'-01.8", AFT 20'-09.3"	FWD 14'-02.4", AFT 20'-08.7"	FWD 14'-03.0", AFT 20'-08.1"	FWD 14'-03.6", AFT 20'-07.5"	
4	5507	C	The American Petroleum Institute recommends magnetic particle inspection for _____.	anchor chain	wire rope	connecting links	pendant wires	
4	5508	C	Your drafts are: FWD 17'-09", AFT 18'-03". What is the KM based on the tables in the blue pages of the Stability Data Reference Book?	25.7 feet	26.0 feet	26.2 feet	26.4 feet	
4	5511	B	When inspecting anchor chain, the American Petroleum Institute recommends checking the length over 5 links every _____.	10 feet	100 feet	250 feet	500 feet	
4	5513	D	A link on an anchor chain should be replaced when wear or grinding of surface cracks has reduced the cross section area by _____.	4%	6%	8%	10%	
4	5515	A	What should be done after repairing a surface crack on a link of anchor chain by grinding?	Examine the area by magnetic particle inspection	Replace the chain in service	Galvanize the area	Post heat the area	
4	5517	A	Grinding to eliminate shallow surface defects should be done _____.	parallel to the longitudinal direction of the chain	perpendicular to the direction of the anchor chain	diagonally across the link of the anchor chain	around the circumference of the chain link	
4	5518	D	The SS AMERICAN MARINER is ready to bunker with drafts of FWD 14'-04", AFT 17'-06". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction.	1.15 feet	1.25 feet	1.31 feet	1.48 feet	ST-0180
4	5521	D	Prior to magnetic particle inspection of anchor chain, the chain should be _____.	degaussed	demagnetized	soaked	sandblasted	
4	5522	B	Radiation spreads a fire by _____.	transmitting the heat of a fire through the ship's metal	transferring heat across an unobstructed space	burning liquids flowing into another space	heated gases flowing through ventilation systems	
4	5523	B	Before being certified by the American Bureau of Shipping, anchor chain must undergo _____.	USCG inspection	a breaking test	x-ray inspection	spectroanalysis	
4	5525	B	What does the proof test load of an anchor chain demonstrate?	The breaking strength of the anchor chain	Strength of the anchor chain to a specified limit	Adequate holding power for new bottom conditions	Safe working load of the anchor chain	
4	5527	B	With adaptor blocks/chocks in place on an LWT stock anchor, the trip angle will be _____.	20°	30°	40°	50°	
4	5531	D	With adaptor blocks/chocks removed from an LWT stock anchor, the trip angle will be _____.	20°	30°	40°	50°	
4	5533	B	Connecting elements of a mooring system should be fabricated from _____.	cast iron	forged steel	stainless steel	cast steel	
4	5535	A	What effect is achieved from soaking an anchor?	It allows the bottom soil to consolidate.	It gives the palms time to trip the anchor.	It stabilizes the mooring system.	It lubricates the anchor for better tripping.	
4	5536	D	On a vessel of 7000 tons displacement, a tank 35 ft. long, 30 ft. wide and 46 ft. deep is half filled with liquid cargo (S.G. 0.923) while the vessel is floating in saltwater (S.G. 1.026). What is the free surface constant for this tank?	3240	2731	2390	2024	

4	5537	A	Why should you soak an anchor?	It can prevent the anchor from slipping during pretensioning.	It will lubricate all the moving parts of a stock anchor.	It will increase the maximum breaking strength of the anchor chain.	It will make it easier to disassemble the anchor for repair.	
4	5541	A	What is the "holding power ratio" of an anchor?	Maximum mooring line tension divided by the anchor's weight in air	Anchor's weight in air divided by the maximum mooring line tension	Preloading tension divided by the anchor's weight in air	Operating tension divided by the anchor's weight in air	
4	5543	B	What happens ns to the efficiency of an anchor when it is moved from sand to mud?	The efficiency increases.	The efficiency decreases.	The efficiency remains the same.	The efficiency cannot be determined.	
4	5545	A	When a combination chain and wire rope mooring line is used, the chain is deployed _____.	at the anchor end of the line	at the wildcat end of the line	midway between the anchor and the wildcat	through the anchor buoy	
4	5547	D	In a combination chain and wire rope mooring system, the chain is deployed at the anchor end of the line to _____.	increase fatigue life	eliminate the need for mooring buoys	prevent the anchor from fouling	increase the catenary	
4	5551	A	Anchor shackles should have a breaking strength that is _____.	equal to the chains they are connecting	25% more than the chains they are connecting	50% more than the chains they are connecting	100% more than the chains they are connecting	
4	5553	C	The angle between the flukes and the shank of an anchor is called the _____.	holding angle	fleet angle	fluke angle	shank angle	
4	5555	A	The fluke angle of an anchor system is the angle between the _____.	flukes and the shank	shank and the sea bottom	mooring line and the sea bottom	flukes and the shackle	
4	5557	B	The holding power of an anchor is the _____.	maximum sustained vertical load an anchor will resist before dragging	maximum sustained horizontal load an anchor will resist before dragging	maximum sustained vertical load an anchor will resist before the mooring line breaks	maximum sustained horizontal load an anchor will resist before the mooring line breaks	
4	5561	D	What line receives the hardest service in the mooring system?	Guy wire	Joining pendant	Wildcat leader	Anchor pendant	
4	5563	B	Most large anchors are manufactured with a _____.	bow type shackle	D-type shackle	U-type shackle	Kenter shackle	
4	5565	D	What is the bow type anchor shackle primarily used for?	Chain to chain connections	Chain to anchor connections	Kenter link to anchor connections	Wire rope connections	
4	5567	C	What is the most important difference between the bow type anchor shackle and the D-type anchor shackle?	The bow type shackle provides a superior connection.	The D-type shackle is weaker than the bow type.	The bow type shackle is weaker than the D-type.	The D-type shackle provides an inferior connection.	
4	5568	C	You are tending the lifeline of a man who entered a compartment using a breathing apparatus. How many tugs on the lifeline indicate the man should back out?	1	2	3	4	
4	5571	A	Which two components pass through the shank of an LWT anchor?	Anchor shackle and stock	Tripping palm and flukes	Crown and chocks	Swivel and stabilizer bar	
4	5573	A	To develop maximum anchor holding power, the optimum angle between the anchor's shank and the mooring lines is _____.	0 degrees	10 degrees	20 degrees	30 degrees	
4	5574	A	The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.	Available GM 2.8 ft	Available GM 3.2 ft	Available GM 3.5 ft	Available GM 3.8 ft	ST-0181
4	5575	A	Increasing the area of the anchor flukes will _____.	increase holding power	decrease holding power	make penetration more complete	not effect holding power	

4	5577	B	What is the advantage of a single streamlined fluke anchor over a double fluked anchor of similar weight?	It has multiple fluke angle settings.	It has increased holding power.	It holds well with either side down.	It is easier to handle on an anchor boat.	
4	5585	B	Cable tension for catenary calculations is taken at the _____.	chain locker	fairlead	anchor	contact point of chain with seabed	
4	5586	B	Your drafts are: FWD 17'-09", AFT 21'-01". Use the blue pages of the Stability Data Reference Book to determine the location of the center of flotation relative to amidships.	5.1 feet forward	4.7 feet forward	2.6 feet aft	0.8 foot forward	
4	5587	C	What is the primary disadvantage of a permanent chain chaser system?	It requires anchor handling boats with more horsepower.	Chain chasers work in shallow water only.	Chain chasers will not work with piggyback anchors.	It takes longer to deploy anchors using chain chasers.	
4	5591	B	The major cause of anchor buoy pendant wire failures is _____.	corrosion	rough weather	defective sockets	mishandling	
4	5595	B	An anchor winch should be equipped with mechanical brakes capable of holding _____.	half the breaking strength of the mooring line	the full breaking strength of the mooring line	the maximum expected tension of the mooring line	50% over the working tension of the mooring line	
4	5597	A	A chain stripper is used to _____.	prevent chain from clinging to the wildcat	clean the marine debris from the chain	flake chain from a boat's chain locker	clean chain prior to an x-ray inspection	
4	5598	C	Fire dampers prevent the spread of fire by _____.	direct contact	radiation	convection	conduction	
4	5601	B	Your semisubmersible drilling unit is moving onto a location in shallow water with a very hard bottom. What is the most effective means of maintaining your position at this location during severe weather?	Running out all the anchor chain available	Piggyback all anchors and pretension to above the expected tensions	Install fluke angle blocks on all your LWT anchors	Remove fluke angle blocks on all your LWT anchors	
4	5603	B	The full period of motion of the DEEP DRILLER while in transit is 7 seconds and the maximum pitch angle as seen on the inclinometers is 4 degrees. From the standpoint of critical motion, the motion is _____.	unsatisfactory, change course and speed	satisfactory, continue transit	unsatisfactory, ballast to survival draft	unsatisfactory, place unit in standby	
4	5604	A	The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.	Available GM 2.4 ft	Available GM 3.2 ft	Available GM 3.5 ft	Available GM 3.8 ft	ST-0182
4	5605	B	The full period of motion of the DEEP DRILLER while tripping is 10 seconds and the maximum pitch angle as seen on the inclinometer is 4 degrees. From the standpoint of critical motion, the motion is _____.	unsatisfactory, place setback in the pipe racks	satisfactory, continue tripping	unsatisfactory, deballast to survival draft	unsatisfactory, place unit in standby	
4	5611	B	The full period of motion of the DEEP DRILLER while tripping is 8 seconds and the maximum pitch angle as seen on the inclinometers is 4 degrees. From the standpoint of critical motion, the motion is _____.	unsatisfactory, place setback in the pipe racks	satisfactory, continue tripping	unsatisfactory, deballast to survival draft	unsatisfactory, place unit in standby	
4	5615	A	Structural stress levels in a MODU are the sum of loading stresses and stresses due to _____.	environmental loads	variable loads	ballast loading	mooring loads	
4	5616	D	You are tending the lifeline of a man who entered a tank using a breathing apparatus. How many tugs on the lifeline indicate that the man should come out immediately?	1	2	3	4	
4	5617	B	Structural stress on a MODU can be reduced by _____.	lessening the effect of environmental forces	even and symmetrical variable loading	local concentration of heavy consumables	increasing the metacentric height	
4	5623	C	The full period of motion of the DEEP DRILLER while tripping is 10 seconds and the maximum pitch angle as seen on the inclinometers is 8 degrees. From the standpoint of critical motion, the motion is _____.	unsatisfactory, place setback in the pipe racks	satisfactory, continue tripping	unsatisfactory, deballast to survival draft	satisfactory, place unit in standby	

4	5625	B	For a semisubmersible moored in heavy weather conditions, the leeward lines should be paid out, and the windward lines adjusted so that _____.	the unit remains as close to the hole as possible	several weather lines carry about the same tension	at least 1,000 feet of chain lie along the bottom	the vertical component of chain tension at the lower fairlead is not excessive	
4	5627	B	For a semisubmersible moored in heavy weather conditions, the weather lines should be adjusted so that several lines carry about the same tension, and the leeward lines are _____.	tensioned to reduce weather mooring line tensions	paid out to reduce weather mooring line tensions	adjusted so that at least 1,000 feet of chain lie along the bottom	adjusted so that the vertical component of chain tension at the lower fairlead is not excessive	
4	5631	A	In deballasting to survival draft because of extreme wind and wave loads, thrusters or propulsion, if available, should be used to _____.	reduce windward mooring line tensions	reduce leeward mooring line tensions	increase leeward mooring line tensions	maintain constant mooring line tensions	
4	5633	B	In ballasting to survival draft, while in transit, due to extreme wind and wave loads, thrusters or propulsion, if available, should be used to _____.	reduce windward mooring tensions	maintain vessel heading	maximize accelerations	increase speed of advance	
4	5637	B	While in transit during heavy weather, the crew aboard a semisubmersible should be alert to repeated pounding of waves on the lower bracing. If necessary, the unit should be _____.	deballasted to a shallower draft	ballasted to survival draft	ballasted to a draft in which the KG exceeds the maximum allowed	towed in the trough of the waves	
4	5643	B	When evacuating the DEEP DRILLER, preparations should include _____.	putting the unit at transit draft	activating the emergency power system	jettisoning all combustible materials	removing all tension from the mooring lines	
4	5644	B	You are operating an ocean-going vessel of 322 gross tons. If your vessel does NOT have an oily-water separator then she must have a fixed piping system to discharge oily ballast to a shore facility. This system must include _____.	containment capacity for at least 5 gallons at the tank vents	a means to stop each pump near the discharge outlet	at least two pumps that may be put in line	at least two outlets accessible from the weather deck	
4	5645	D	On a semisubmersible drilling unit, increasing riser tension reduces _____.	list	KM	KG	GM	
4	5647	A	On a semisubmersible drilling unit, increasing riser tension increases _____.	KG	GM	KM	free surface moments	
4	5648	C	The hydrostatic release on the inflatable liferafts on a fishing vessel must be _____.	replaced annually	tested monthly	serviced annually	overhauled quarterly	
4	5651	A	On a semisubmersible drilling unit, decreasing riser tension reduces _____.	KG	KM	GM	free surface moments	
4	5653	C	On a semisubmersible drilling unit, decreasing riser tension increases _____.	free surface moments	KM	GM	KG	
4	5655	C	When the air temperature is just below 32°F, snow FIRST adheres to _____.	surfaces near the waterline	vertical surfaces	horizontal surfaces	leeward surfaces	
4	5665	B	When clear ice is present while drilling, the vertical transverse moments of the DEEP DRILLER are increased by _____.	40,402 ft-long tons	42,255 ft-long tons	45,593 ft-long tons	49,280 ft-long tons	
4	5667	D	When clear ice is present when the DEEP DRILLER is in transit, the vertical moments are increased by _____.	40,402 ft-long tons	42,255 ft-long tons	45,593 ft-long tons	49,280 ft-long tons	
4	5668	B	Your drafts are: FWD 16'-02", AFT 18'-02". Use the blue pages of the Stability Data Reference Book to determine the MT1.	935 foot-tons	960 foot-tons	985 foot-tons	1000 foot-tons	

4	5671	C	When assuming the maximum ice weight accumulation on the DEEP DRILLER at survival draft, the vertical moments are increased by _____.	40,402 ft-long tons	42,255 ft-long tons	45,593 ft-long tons	49,280 ft-long tons	
4	5673	C	The DEEP DRILLER may remain at operating draft instead of deballasting to survival draft when _____.	critical motion limits have been exceeded	waves approach within two feet of the spider deck	the maximum wave height is less than 64 feet	winds are greater than 70 knots	
4	5677	A	The DEEP DRILLER may remain at operating draft instead of deballasting to survival draft when _____.	critical motion limits have not been exceeded	waves approach within two feet of the spider deck	the maximum wave height is greater than 64 feet	winds are greater than 70 knots	
4	5681	D	The DEEP DRILLER may remain at operating draft instead of deballasting to survival draft when _____.	critical motion limits have been exceeded	waves approach within two feet of the spider deck	the maximum wave height is greater than 64 feet	winds are less than 70 knots	
4	5683	A	You should consider placing the drilling operations of the DEEP DRILLER in standby when _____.	sustained winds exceed 50 knots	winds exceed 70 knots	critical motion limits have been exceeded	waves are greater than 64 feet	
4	5691	D	In a storm, the windward lines of a MODU's mooring system provide _____.	a positive righting moment	an increase in KM	a negative restoring force	a positive restoring force	
4	5693	A	In a storm, the leeward lines of a MODU's mooring system will _____.	pull the unit in the same direction that the weather is pushing it	pull the unit in the opposite direction that the weather is pushing it	tend to keep the unit on its original location over the well head	affect the unit's draft and inclination as maximum mooring tensions are reached	
4	5694	B	What is the meaning of the signal QU RQ when sent by the International Code of Signals?	This is the call sign of a vessel registered in Latvia.	Is anchoring prohibited?	Will you lead me to a safe anchorage?	Interrogative	
4	5695	A	The DEEP DRILLER is loaded as shown in Sample Load Form #4, (Drilling). In preparing for approaching heavy weather, the four leeward mooring lines are slacked. These actions reduce the _____.	natural pitch period	metacentric height	height of the righting arm	righting moment	
4	5697	D	The motion that can significantly increase mooring line tension is _____.	pitch	roll	yaw	sway	
4	5701	C	The vessel motion that can significantly affect mooring line tensions on a MODU is _____.	roll	yaw	surge	pitch	
4	5702	B	The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.	Available GM 2.8 ft	Available GM 3.2 ft	Available GM 3.5 ft	Available GM 3.8 ft	ST-0183
4	5705	B	The design of a spring buoy helps _____.	to retrieve the anchor	to prevent chafing at the lower end of the pendant	to mark the rig's approach to the location	an anchor handling vessel back toward the rig	
4	5707	A	A mooring system that results in a spread system without anchor buoys is called a _____.	permanent chasing system	wire rope mooring system	shepherd's crook mooring system	spring buoy mooring system	
4	5708	C	On a vessel of 6500 tons displacement, a tank 30 ft. long, 32 ft. wide and 18 ft. deep is half filled with liquid cargo (S.G. 1.048) while the vessel is floating in saltwater (S.G. 1.026). What is the free surface constant for this tank?	1152	1336	2390	2731	
4	5711	C	Installing tandem anchors on the same mooring line is referred to as _____.	doubling	pretensioning	piggybacking	paralleling	
4	5713	C	What pressure must a spring buoy, moored at a 500 foot depth, withstand?	100 psig	150 psig	225 psig	300 psig	
4	5715	D	What can cause a lack of oxygen in a chain locker?	Absorption	Osmosis	Evaporation	Oxidation	

4	5721	D	Deficient oxygen content inside a chain locker can be detected with _____.	litmus paper	combustible gas indicator	oxygen breathing apparatus	oxygen indicator	
4	5722	B	Your drafts are: FWD 21'-03", AFT 26'-00". What is the KM based on the tables in the blue pages of the Stability Data Reference Book?	25.1 feet	25.4 feet	25.7 feet	26.0 feet	
4	5725	C	Given the same water depth and line tension, the catenary length of a 90 pound/foot mooring chain in comparison to the catenary length of a 19 pound/foot wire rope mooring line will be _____.	longer	identical	shorter	indeterminable	
4	5727	D	Given the same water depth and line tension, the length of the ground cable of a 90 pound/foot mooring chain compared to the length of the ground cable of a 19 pound/ft wire rope mooring line will be _____.	indeterminable	identical	shorter	longer	
4	5731	B	Given the same water depth and line tension, the catenary length of a 19 pound/foot wire rope mooring line in comparison to the catenary length of a 90 pound/foot mooring chain will be _____.	shorter	longer	identical	indeterminable	
4	5733	A	Given the same water depth and mooring tension, the length of the ground cable of a 19 pound/foot wire rope mooring line in comparison to a 90 pound/foot mooring chain will be _____.	shorter	identical	longer	indeterminable	
4	5735	B	Given the same water depth and mooring tension, the holding power of a 90 pound/foot chain mooring system in comparison to the holding power of a 19 pound/foot wire rope mooring line will be _____.	weaker	greater	equal	indeterminable	
4	5737	A	Given the same water depth and line tension, the holding power of a 19 pound/foot wire rope mooring system in comparison to the holding power of a 90 pound/foot chain mooring system will be _____.	weaker	equal	greater	indeterminable	
4	5741	A	A device commonly used to secure the pendant wire when it is initially passed to an anchor handling vessel is _____.	pelican hook	connecting link	shackle	retaining hook	
4	5743	B	The safest device used to secure the end of the pendant wire when it is initially passed to the anchor handling vessel is a _____.	pelican hook	hydraulic deck stopper	connecting link	shackle	
4	5747	C	If the water depth is 500 feet, the length of the pendant wire from the anchor to the buoy is typically _____.	400 feet	500 feet	600 feet	1000 feet	
4	5751	C	When piggybacking anchors, the distance between the primary anchor and the secondary anchor is determined by _____.	bottom conditions	anchor types	water depth	workboat winch capacity	
4	5752	C	The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.	Available GM 2.8 ft	Available GM 3.2 ft	Available GM 3.5 ft	Available GM 3.8 ft	ST-0184
4	5753	C	The length of chain between the anchor and the end of the pendant line is called the _____.	pigtail chain	thrash chain	crown chain	wear chain	

4	5755	B	Why are symmetric mooring patterns frequently used to keep MODU's on station?	All lines contribute to the holding power of the mooring system.	Environmental forces will probably vary in direction during the time the MODU is on station.	Environmental forces will probably come from the same direction during the time the MODU is on station.	Governmental regulations require this mooring pattern unless an exemption is issued.	
4	5756	D	Your drafts are: FWD 21'-03", AFT 21'-09". What is the KM based on the tables in the blue pages of the Stability Data Reference Book?	26.5 feet	26.3 feet	25.8 feet	25.5 feet	
4	5757	B	What determines the minimum size of an anchor buoy?	Environmental conditions	Water depth	Regulatory bodies	Deck space on work boat	
4	5763	B	What is the purpose of a chain stopper?	Stops the chain during pay out	Secures the chain after is has been stopped	Stops off a 6 foot section for inspection	Hydraulically cuts anchor chain	
4	5765	A	Air gap is the vertical distance between the bottom of the hull and the _____.	still water level	wave crest	wave crest plus the charted water depth and tidal corrections	wave crest plus the charted water depth and tidal correction and storm surge	
4	5767	B	A shepherd's crook is used to _____.	lower spring buoys into the water	find an anchor after the buoy has been lost	transfer a pennant wire to the anchor handling boat	clean chain as it is hauled into the rig	
4	5771	D	A J-chaser is used to _____.	transfer a pennant wire to the anchor handling vessel	clean chain as it is hauled into the rig	lower spring buoys into the water	retrieve an anchor after the buoy has been lost	
4	5781	B	In storm conditions, with the wind and waves from the port bow of the DEEP DRILLER in 600 feet water depth, the tensions in mooring line 1 and 2 are 400 kips. Completely slacking the mooring lines 5 and 6 reduces the tension in mooring lines 1 and 2 to about _____.	375 kips	330 kips	275 kips	220 kips	
4	5783	B	In storm conditions in 600 feet of water, completely slacking the leeward mooring line of the DEEP DRILLER reduces the tension in that line to about _____.	25 kips	50 kips	75 kips	100 kips	
4	5785	A	In storm conditions, with the wind and waves from the port bow of the DEEP DRILLER in 600 feet water depth, the offset is 9%. Completely slacking mooring lines 5 and 6 reduces the offset to _____.	6.50%	5.00%	2.50%	0.00%	
4	5786	D	The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.	Available GM 2.8 ft	Available GM 3.2 ft	Available GM 3.5 ft	Available GM 3.8 ft	ST-0185
4	5787	B	In storm conditions, with the wind and waves from the starboard bow of the DEEP DRILLER in 600 feet water depth, the offset is 8%. Completely slacking mooring lines 7 and 8 reduces the offset to _____.	6.50%	5.00%	2.50%	0.00%	
4	5791	B	In storm conditions, with the wind and waves from the port bow of the DEEP DRILLER in 400 feet water depth, the tensions in mooring lines 1 and 2 are 400 kips. Completely slacking the mooring lines 5 and 6 reduces the tension in mooring lines 1 and 2 to about _____.	375 kips	330 kips	275 kips	220 kips	

4	5793	C	In storm conditions, with the wind and waves from the starboard bow of the DEEP DRILLER in 400 feet water depth, the offset is 7%. Completely slacking mooring lines 7 and 8 reduces the offset to _____.	6.50%	5.00%	4.00%	2.50%	
4	5795	C	What is the length of the catenary when the DEEP DRILLER is anchored in 600 feet of water and the anchor line tension is 170 kips?	891 feet	1348 feet	1493 feet	1657 feet	
4	5805	C	A permanent chain chasing system is used to _____.	clean anchor chain as it's hauled in	recover anchors which have lost their buoys	run and retrieve anchors	prepare anchor chain for inspection	
4	5806	C	Damage stability is the stability _____.	which exists when the wind speed is less than 50 knots	before collision	after flooding	at the maximum load	
4	5811	D	The unit used to measure anchor line tensions in the offshore drilling industry is the _____.	long ton	short ton	metric ton	Kip	
4	5813	A	An ideal mooring system would be _____.	symmetrical and in equilibrium	asymmetrical and in flux	distorted and in equilibrium	concentric and in flux	
4	5814	B	Your drafts are: FWD 18'-03", AFT 21'-09". What is the KM based on the tables in the blue pages of the Stability Data Reference Book?	25.2 feet	25.6 feet	25.9 feet	26.3 feet	
4	5815	D	What device is used to measure the force exerted on the rig by a leg of the mooring system?	Advanced stability computer	Hole position indicator	Fathometer	Load cell	
4	5817	A	The two main types of load cells used in mooring tension gauges are _____.	distortion and compression	hydraulic and mechanical	magnetic and applied torque	frictionless and hydraulic	
4	5821	A	Why should you preload a mooring system above your precalculated operating mooring tensions?	This serves as a benchmark for increasing tensions in rough weather.	This allows you to determine existing bottom conditions.	This insures that the anchor cable is stretched out in a straight line.	This tests all the components of your mooring equipment.	
4	5823	C	Your semisubmersible drilling unit is moored on station and is experiencing winds from the north. What will be the effect if you increase the length of the anchor chains you have deployed to the north?	It will increase your draft.	It will increase your operating tensions.	It will increase the holding power of those chains.	It will significantly reduce your stability.	
4	5824	B	The vertical distance between G and M is used as a measure of _____.	stability at all angles of inclination	initial stability	stability at angles less than the limit of positive stability	stability at angles less than the downflooding angle	
4	5825	C	The tension on an anchor cable increases so that the angle of the catenary to the seabed at the anchor reaches 10 degrees. How will this affect the anchor in sandy soil?	It will have no effect.	It will increase the holding power.	It will reduce the holding power.	It will cause the anchor to snag.	
4	5827	D	When a MODU is afloat in equilibrium, the horizontal component of mooring line tensions should equal _____.	drilling forces	weight forces	buoyancy forces	environmental forces	
4	5835	B	The initial tension set in the mooring system of a MODU establishes the _____.	maximum water depth at which drilling operations can be conducted	distance the unit can be offset from the wellbore before the restoring forces oppose the environmental forces	maximum time it will take to disconnect the riser package in the event of a storm	minimum amount of ballast needed to keep the vessel at operating draft during normal drilling operations	

4	5837	D	What could cause a significant difference between actual chain tension and the tension measured by the tensiometer?	The type of anchor and mooring line being used	The type of bottom in which the MODU is anchored	A significant difference between air and water temperature	The chain contacting a chock or fairlead between the tensiometer and the lower swivel fairlead	
4	5845	C	Yawing can be described as _____.	jumping on the tow line as the rig pitches	jumping on the tow line as the rig slams into waves	veering from side to side on the end of the tow line	corkscrew motion due to wave action	
4	5855	A	A mat-type drilling unit tows more slowly than a jack-up unit due to _____.	the drag of the mat	its deeper draft	its tubular legs	the design of the bow	
4	5857	A	In towing it is desirable for the tug and the MODU to ride wave crests simultaneously because _____.	shock loading on the tow line is reduced	towing speed is improved	the MODU is more visible from the tug	the catenary of the tow line is reduced	
4	5858	D	Your drafts are: FWD 23'-03", AFT 27'-01". Use the blue pages of the Stability Data Reference Book to determine the MT1.	1050 foot-tons	1065 foot-tons	1090 foot-tons	1130 foot-tons	
4	5863	D	If a MODU under tow starts jumping on its tow line, the most appropriate action to alleviate the condition is to _____.	change course	slow down	heave to	adjust tow line length	
4	5864	A	The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.	Available GM 4.1 ft	Available GM 4.3 ft	Available GM 4.7 ft	Available GM 5.1 ft	ST-0186
4	5871	B	The DEEP DRILLER is moored in 600 feet of water. The tension on anchor line #8 is 190 kips. What is the vertical component of chain tension for that line?	53.6 long tons	55.3 long tons	84.8 long tons	442.4 long tons	
4	5883	D	In selecting a tug for moving a MODU, consideration should be given to its _____.	indicated horsepower, bollard pull, and displacement	indicated horsepower, maneuverability, and displacement	indicated horsepower, bollard pull, and maneuverability	bollard pull, displacement, and maneuverability	
4	5893	A	The effect of ocean currents is usually more evident on a rig being towed than on a tug navigating independently because the _____.	speed of the tow is less	tow line catches the current	current causes yawing	current will offset the rig	
4	5897	D	The type of shackle used in making up tow lines to a MODU should be _____.	screw pin	chain	anchor	safety	
4	5898	D	What is the meaning of the signal VJ 8 when sent by the International Code of Signals?	Winds of force 8 are expected.	Low clouds cover 8 octants of the sky.	You should stop hauling your warps.	A gale is expected from the north.	
4	5901	A	With a rig in tow, there is immediate danger to the tug in the event of the _____.	tug losing power	tow line parting	bridle twisting	rig broaching	
4	5902	C	The most likely location for a liquid fire to occur on a tanker would be _____.	the midships house	at the vent header	in the pumproom	at the main deck	
4	5903	C	The signal to man emergency stations on MODU's is _____.	30 seconds on/30 seconds off alternating signal	continuous ringing of general alarm signal	intermittent ringing of general alarm for not less than 10 seconds	announced over PA system	
4	5905	D	The signal for fire alarm on a MODU must be indicated _____.	at each alarm bell	at each alarm actuator	near all exits	on the Muster List ("Station Bill")	
4	5907	A	The Muster List ("Station Bill") of a MODU must be signed by the _____.	person in charge	Coast Guard marine inspection officer	company safety director	entire crew	
4	5911	D	What information must be entered on the MODU's muster list?	Names of all crew members	Use and application of special equipment	Listing of approved emergency equipment	Duties and station of each person during emergencies	

4	5913	C	If uniformly distributed in the cantilever pipe rack of the COASTAL DRILLER, how much pipe can be placed in the cantilever pipe rack area when the cantilever has been extended 40 feet aft of the transom?	630 kips	609 kips	500 kips	479 kips	
4	5914	B	On a vessel of 6500 tons displacement, a tank 35 ft. long, 25 ft. wide, and 8 ft. deep is half filled with liquid cargo (S.G. 1.053) while the vessel is floating in saltwater (S.G. 1.026). What is the free surface constant for this tank?	1152	1336	1371	16,036	
4	5915	D	What is the most vulnerable part of the fire main system on board an offshore rig?	The fire pump	Exposed hard piping	The hydrant valve	The fire hose	
4	5923	C	The relief valve on a fire pump is set at 25 psi above the pressure necessary to maintain required fire streams, or _____.	50 psi	75 psi	125 psi	150 psi	
4	5924	D	The SS AMERICAN MARINER is ready to bunker with drafts of FWD 13'-10", AFT 16'-04". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction.	1.30 feet	1.07 foot	0.96 foot	0.73 foot	ST-0187
4	5925	B	When fire pumps are used for other than firefighting service, each pipe connecting the other service (except for branch lines used for deck washing) must have a _____.	check valve installed in the line	shut off valve at a manifold near the pump	quick disconnect union within ten feet of the pump	regulator in the line set at 125 psi	
4	5927	C	A fire main system must have enough fire hydrants so that each accessible space may be sprayed with _____.	a low velocity spray applicator	a water spray or solid stream	at least two spray patterns of water	at least 25 psi delivered pressure	
4	5931	C	If the charted water depth is 200 feet, the limits of service for the COASTAL DRILLER require an air gap of _____.	35 feet	32 feet	30 feet	25 feet	
4	5933	A	Each fire hydrant must have at least one spanner and at least one _____.	hose rack or reel	all purpose nozzle	foam applicator	pick axe	
4	5934	D	You are wearing a breathing apparatus inside a tank. How many tugs on the lifeline should you give to indicate that you need help?	1	2	3	4	
4	5935	B	The size of fire hydrant hose connections must be either 1-1/2 inches or _____.	1 inch	2-1/2 inches	3 inches	3-1/2 inches	
4	5936	B	The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.	Available GM 4.1 ft	Available GM 4.3 ft	Available GM 4.7 ft	Available GM 5.1 ft	ST-0188
4	5941	B	Each fire hydrant serving machinery spaces containing oil fired boilers, internal combustion machinery, or oil fuel units must be equipped with a _____.	fireman's outfit	low-velocity spray applicator	marine strainer	pick axe	
4	5945	A	Each part of the fire-main system located on an exposed deck must be _____.	protected against freezing	locked to prevent theft	numbered sequentially	pressurized at all times	
4	5946	C	The SS AMERICAN MARINER has drafts of: FWD 25'-11", AFT 26'-11". Use the white pages of the Stability Data Reference Book to determine the drafts if you ballast the forepeak with 83 tons of seawater.	FWD 26'-05.6", AFT 26'-07.5"	FWD 26'-06.2", AFT 26'-06.9"	FWD 26'-06.8", AFT 26'-06.3"	FWD 26'-07.7", AFT 26'-05.4"	
4	5947	B	Each fire hose coupling on a MODU must have threads that meet the specifications of the _____.	American Petroleum Institute	National Standard Fire hose Coupling	American Society of Mechanical Engineers	Underwriter's Laboratories, Inc.	

4	5951	C	Control valves of a CO2 system may be located within the protected space when _____.	it is impractical to locate them outside	there is also a control valve outside	the CO2 cylinders are also in the space	an automatic heat-sensing trip is installed	
4	5953	D	The stamped full weight of a 100 lb. CO2 bottle is 314 lbs. What is the minimum weight of the bottle before it has to be recharged?	282 lbs.	294 lbs.	300 lbs.	304 lbs.	
4	5955	D	After using a CO2 extinguisher on a MODU, it should be _____.	put back in service if some CO2 remains	hydrostatically tested	retagged	recharged	
4	5957	B	On a MODU, a CO2 extinguisher is checked by _____.	reading the gage pressure	weighing the extinguisher	discharging a small amount of CO2	seeing if the seal has been broken	
4	5958	B	You are wearing a breathing apparatus inside a tank. How many tugs on the lifeline should you give to indicate that you are advancing?	1	2	3	4	
4	5961	C	A CO2 extinguisher on a MODU which has lost 10% of its charge must be _____.	used at the earliest opportunity	hydro-tested	recharged	weighed again in one month	
4	5962	C	Your drafts are: FWD 25'-09", AFT 28'-03". Use the blue pages of the Stability Data Reference Book to determine the location of the center of flotation relative to amidships.	2.6 feet forward	2.1 feet forward	at the center of flotation	0.8 foot aft	
4	5963	D	On a MODU, CO2 extinguishers must be weighed _____.	monthly	quarterly	semiannually	annually	
4	6003	B	The minimum number of portable C-II fire extinguishers required on the drill floor of a MODU is _____.	1	2	3	4	
4	6004	C	The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.	Available GM 4.1 ft	Available GM 4.3 ft	Available GM 4.7 ft	Available GM 5.1 ft	ST-0189
4	6007	A	On offshore drilling units, each hand-held portable fire extinguisher, semi-portable fire extinguisher, and fixed fire extinguisher must be tested and inspected at least once every _____.	12 months	24 months	36 months	48 months	
4	6011	C	On a MODU, hand portable extinguishers are size(s) _____.	II only	II and III	I and II	I only	
4	6013	D	On a MODU, size III, IV, and V extinguishers are considered _____.	hand portable	all purpose	fixed extinguishers	semi-portable	
4	6015	C	On a MODU, size I and II extinguishers are considered _____.	fixed systems	steam generated	hand portable	semi-portable	
4	6021	C	Semi-portable extinguishers used on MODU's are sizes _____.	II, III, and IV	I, II, and III	III, IV, and V	IV and V	
4	6022	C	You are in a tank wearing a breathing apparatus and you desire to return topside. How many tugs of the lifeline mean "Take up slack"?	1	2	3	4	
4	6023	B	On a MODU, an extinguisher with 15 lbs. of CO2 or 10 lbs. of dry chemical is a size _____.	I	II	III	IV	
4	6027	C	On a MODU, firefighting equipment must be inspected once every _____.	three months	six months	twelve months	eighteen months	
4	6031	A	On a MODU, a fire drill shall be conducted once every _____.	week	month	crew change	other week	
4	6033	A	During a fire drill on a MODU, what action is required?	Start each fire pump	Launch and run a lifeboat	Inventory rescue and fire equipment	Inspect fire hoses	
4	6035	B	On a MODU, watertight doors should be operated _____.	during abandon drill	during fire drill	weekly	when the rig is being moved	

4	6037	A	When testing fire hoses on offshore drilling units, each hose must be subjected to a test pressure of at least _____.	100 psi	110 psi	120 psi	150 psi	
4	6041	B	On offshore drilling units, the fire main system must have enough fire hydrants so that each accessible space may be sprayed with at least _____.	one spray pattern	two spray patterns	three spray patterns	four spray patterns	
4	6042	B	Canvas sails, when not in use, may be damaged if _____.	left in the sunlight	stowed wet	folded frequently	washed with soap and water	
4	6047	B	On offshore drilling units, each fire station is required to be fitted with a hose which has a nominal length of _____.	25 feet	50 feet	75 feet	100 feet	
4	6049	D	While proceeding to a distress site, you hear the words "Seelonce mayday" on the radiotelephone. Which action should you take?	Resume base course and speed as your assistance is no longer required.	Acknowledge receipt and advise your course, speed, and ETA.	Relay the original distress message as no other vessel has acknowledged it.	Monitor the radiotelephone but do not transmit.	
4	6051	A	The connection facilities for the international shore connection required on board offshore drilling units in international service must be located to provide access _____.	to each side of the drilling unit	as close as possible to the control house	on the drill floor	on each level of the accommodation space	
4	6055	C	How often are fire hoses required to be tested on a mobile offshore drilling unit?	Once a week	Once a month	Once a year	During each drill	
4	6061	B	The international shore connection required on a MODU is designed to _____.	permit discharge of waste oil	allow hook up of fire fighting water from a dock or another vessel	satisfy pollution prevention requirements	allow emergency use of the fire main for deballasting	
4	6065	C	A fire pump on a MODU requires 175 psi discharge pressure to maintain the required 50 psi pitot tube pressure at the two highest hydrants. The maximum setting for the relief valve is _____.	125 psi	175 psi	200 psi	225 psi	
4	6067	B	On offshore drilling units fitted with fixed CO2 systems, the system must discharge at least 85 percent of the required amount of CO2 within _____.	1 minute	2 minutes	3 minutes	4 minutes	
4	6071	B	On offshore drilling units fitted with fixed CO2 systems, the system must withstand a bursting pressure of at least _____.	5,000 pounds per square inch	6,000 pounds per square inch	8,000 pounds per square inch	10,000 pounds per square inch	
4	6073	A	Before releasing the CO2 into the space, the alarm for a fixed CO2 system must sound for at least _____.	20 seconds	30 seconds	40 seconds	60 seconds	
4	6074	D	The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.	Available GM 4.1 ft	Available GM 4.3 ft	Available GM 4.7 ft	Available GM 5.1 ft	ST-0190
4	6075	A	On offshore drilling units fitted with CO2 systems, each space that contains a cylinder must be vented and designed to keep temperature in the space at not more than _____.	130°F	150°F	180°F	200°F	
4	6076	A	You are wearing a breathing apparatus inside a tank. How many tugs on the lifeline indicate that you are all right?	1	2	3	4	

4	6077	B	Operation of the valve control release on a fixed CO2 system must immediately _____.	release CO2 to the protected space	secure all mechanical ventilation in the protected space	sound the rig's general alarm signal for a fire	sound an alarm in the ballast control room	
4	6083	C	A fixed CO2 system on a MODU with a capacity of over 300 lbs (136 kilograms) CO2 which protects spaces other than tanks must have _____.	two or more releasing stations	automatic release in event of a fire	an audible alarm and time delay	an audible and visible alarm	
4	6084	A	Your drafts are: FWD 20'-08", AFT 23'-03". Use the blue pages of the Stability Data Reference Book to determine the MT1.	1050 foot-tons	1065 foot-tons	1090 foot-tons	1130 foot-tons	
4	6085	A	On a MODU, a fixed carbon dioxide or other approved system must be installed _____.	where oil or chemical drums are stored	in all battery storage locations	in paint lockers	in all of the above locations	
4	6087	C	Portable Halon extinguishers used on MODU's may use _____.	HALON 1301 only	HALON 22 only	HALON 1211 only	HALON 1301 or 1211	
4	6088	A	What is the meaning of the signal DX RQ when sent by the International Code of Signals?	Are you sinking?	The call sign of a vessel registered in the Philippines.	The damage can be repaired at sea.	There are no tugs available.	
4	6091	A	Due to the hazards involved with Halon extinguishers on a MODU, the size II extinguisher may only be used _____.	outside	on class C fires	in an emergency	on class B fires	
4	6093	A	On offshore drilling units where foam systems are installed on the heliport, the system must be able to discharge continuously for at least _____.	5 minutes	6 minutes	8 minutes	10 minutes	
4	6095	A	Where foam extinguishing systems are provided on a MODU, each machinery flat in the protected space must have a(n) _____.	coaming	alarm	drain	fire sensor	
4	6101	C	What must be provided on a MODU helicopter deck that is equipped with fueling facilities?	Fuel testing station	Foam testing station	Foam fire protection system	Fire alarm	
4	6102	B	The SS AMERICAN MARINER has on board 5480 tons of cargo with an LCG-FP of 274.46 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo.	LCG-FP 271.79 feet	LCG-FP 272.87 feet	LCG-FP 274.04 feet	LCG-FP 275.13 feet	ST-0191
4	6105	A	The primary danger in helicopter fires on a MODU is _____.	burning jet fuel running on to quarters or other areas	loss of the mooring system	rotating and flying debris	heat damage to helicopter structure	
4	6106	D	The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.	Available GM 4.3 ft	Available GM 4.7 ft	Available GM 5.1 ft	Available GM 5.5 ft	ST-0192
4	6107	D	The preferred agent used in fighting a helicopter crash fire on a MODU is _____.	CO2	dry chemical	water	foam	
4	6115	B	If a mobile offshore drilling rig has four hand portable fire extinguishers that can be recharged by personnel on the unit, how many spare charges must be carried?	1	2	3	4	
4	6121	B	The inspection of portable extinguishers on a MODU must be _____.	accomplished by an authorized servicing representative	recorded by the person in charge	completed every six months	All of the above	
4	6123	B	On offshore drilling units, the minimum required number of fireman's outfits which must be carried is _____.	1	2	3	4	

4	6124	A	On a vessel of 7000 tons displacement, a tank 35 ft. long, 30 ft. wide and 4 ft. deep is half filled with fuel oil (S.G. 0.962) while the vessel is floating in saltwater (S.G. 1.026). What is the free surface constant for this tank?	2,109	25,974	31,328	909,090	
4	6125	A	What is the minimum required number of fire axes that must be carried on a mobile offshore drilling unit?	2	3	4	5	
4	6127	B	On offshore drilling units, the minimum number of persons required to be trained in the use of fireman's outfits is _____.	1	2	3	4	
4	6131	B	How many fireman's outfits are required on a MODU?	1	2	3	4	
4	6133	C	What equipment is included in the fireman's outfit?	Chemical protection face shield	Approved work vest	Self contained breathing apparatus	Marlinspike	
4	6157	A	Smoking in bed on a MODU is prohibited _____.	at all times	during evening hours	unless another person is present	during drilling operations	
4	6175	B	It is the responsibility of the Master or person in charge of a MODU to ensure that _____.	the Muster List ("Station Bill") is posted in each compartment	temporary personnel and visitors are advised of emergency stations	names of crew members are listed on the Muster List ("Station Bill")	no changes are made to the Muster List ("Station Bill")	
4	6177	C	Fires on a MODU must be reported to the Coast Guard if there is death, injury resulting in more than 72 hours incapacitation, or property damage in excess of _____.	$5,000	$10,000	$25,000	$50,000	
4	6187	B	A fire in a ballast pumproom can be brought under control with minimal impact on stability by _____.	cooling the outside bulkheads with water	shutting all sources of air into the compartment	closing the sea chest	flooding the compartment with salt water	
4	6191	C	Fighting a rig fire in a watertight compartment with hoses could reduce the stability of the rig by _____.	progressive downflooding	reducing the level of drill water from the storage tanks	causing a list due to the water in the compartment	reducing the KG to minimum allowable	
4	6193	D	What is best suited for fighting a fire in a ballast control room?	Automatic sprinkler system	Steam smothering system	Dry chemical system	Carbon dioxide system	
4	6195	D	Each person on the rig has a designated area to proceed to in the event of a fire. This assignment is shown clearly on the rig's _____.	fire fighting plan	shipping articles	Certificate of Inspection	Muster List ("Station Bill")	
4	6196	B	You are tending the lifeline of a man who entered a compartment using a breathing apparatus. How many tugs on the lifeline indicate the man should advance?	1	2	3	4	
4	6197	C	Fighting a rig fire in the ballast pumproom with hoses would adversely affect the stability of the rig most by _____.	increasing the permeability of the pumproom	reduction of drill water from the storage tanks	a list caused by water filling the compartment	a reduced KG caused by water filling the compartment	
4	6201	B	The two courses of action if the underwater hull of a MODU is severely damaged are to plug the openings and to _____.	dewater the compartment	establish and maintain flooding boundaries	secure power to the compartment	counter flood to maintain even keel	
4	6213	B	When patching holes in the hull of a MODU, pillows, bedding, and other soft materials can be used as _____.	caulking	gaskets	strongbacks	wedges	
4	6225	D	The procedure of strengthening damaged structures on a MODU by using wood or steel is called _____.	bracing	battening	blocking	shoring	

4	6233	A	When shoring a damaged bulkhead on a MODU, effort should be taken to spread the pressure over the _____.	maximum possible area	minimum possible area	nearest watertight door	nearest longitudinal girder	
4	6241	B	The objective of shoring the damaged area of a MODU is to _____.	force the warped, bulged, or deformed sections back into place	support and hold the area in the damaged position	withstand subsequent additional damage	make a watertight seal at the damaged area	
4	6245	A	On board a mobile offshore drilling unit, the key to the most rapid and effective response to a man overboard situation is _____.	well-conducted drills	a dedicated crew	good equipment	good communication	
4	6246	C	The ventilation system of your ship has fire dampers restrained by fusible links. Which statement is TRUE?	A fusible link will automatically open after a fire is extinguished and reset the damper.	Fusible links must be replaced at every inspection for certification.	Fusible links must be replaced if a damper is activated.	Fusible links are tested by applying a source of heat to them.	
4	6247	B	Repair of structures on a MODU in the vicinity of liquid mud handling areas presents what possible hazard?	Toxic gasses may be present.	Flammable gasses may be present.	Liquid muds may flood adjoining spaces.	An oxygen-deficient atmosphere may be present.	
4	6248	D	Your drafts are: FWD 26'-03", AFT 30'-08". Use the blue pages of the Stability Data Reference Book to determine the location of the center of flotation relative to amidships.	2.8 feet aft	2.3 feet aft	1.9 feet aft	1.5 feet aft	
4	6249	D	Automatic fire dampers in ventilation systems are operated by use of _____.	heat or smoke detectors	C02 system pressure switches	remotely operated valves	fusible links	
4	6251	B	Explosive and flammable gasses are most likely to be encountered on a MODU _____.	at any location	on the drill floor and liquid mud handling areas	in bulk storage tanks	in machinery spaces	
4	6253	A	The Coast Guard requires machinery spaces and enclosed mud handling spaces to have _____.	remote ventilation shutdowns	remote pump shutdowns	alternative control stations	smoke and/or fire detection system	
4	6255	B	Control of fire on a MODU should be addressed _____.	immediately after restoring vital services	immediately	following control of flooding	following establishment of fire boundaries	
4	6257	B	If there are a number of survivors in the water after abandoning a MODU, they should _____.	tie themselves to the unit so they won't drift with the current	form a small circular group to create a warmer pocket of water in the center of the circle	send the strongest swimmer to shore for assistance	form a raft by lashing their life preservers together	
4	6261	A	When should the emergency position-indicating radio beacon be activated after abandoning a MODU?	Immediately	After one hour	Only when another vessel is in sight	Only after sunset	
4	6265	D	During severe storms when survival becomes a major concern, it may become necessary to relieve high anchor tensions on the windward side of the unit by _____.	deballasting the rig	ballasting the rig	paying out cable on the windward side	paying out cable on the leeward side	
4	6271	C	During storm conditions on a MODU, the mooring tensions should be adjusted so that _____.	all mooring lines have a different tension	the leeward lines have higher tension than the windward lines	the maximum tension of the most heavily loaded line does not exceed the safe working load	all horizontal tension forces on the windward lines are no greater than the vertical tension forces	
4	6273	A	During a storm, the chance of fatigue failure of a mooring line will increase as _____.	vessel motions increase	mooring tensions decrease	KG increases	KG decreases	

4	6274	D	You are fighting a class "B" fire with a portable dry chemical extinguisher. The discharge should be directed _____.	at the main body of the fire	to bank off a bulkhead onto the fire	over the top of the fire	at the seat of the fire, starting at the near edge	
4	6275	A	During a storm, the mooring line on a MODU should be long enough so that the angle between the anchor shank and the ocean floor is _____.	0°	30°	60°	90°	
4	6276	B	Your drafts are: FWD 17'-09", AFT 18'-03". Use the blue pages of the Stability Data Reference Book to determine the location of the center of flotation relative to amidships.	5.6 feet forward	5.1 feet forward	at the center of flotation	0.8 foot aft	
4	6277	D	The SS AMERICAN MARINER has drafts of: FWD 22'-03", AFT 26'-05". Use the white pages of the Stability Data Reference Book to determine the drafts if you ballast the forepeak with 77 tons of seawater.	FWD 22'-08.7", AFT 26'-02.2"	FWD 22'-09.3", AFT 26'-01.6"	FWD 22'-09.9", AFT 26'-01.0"	FWD 22'-10.5", AFT 26'-00.4"	
4	6291	C	When dragging of an anchor occurs, you must either reposition it at greater range or _____.	adjust the tensiometer	reduce the conductor tension	use a piggyback (backing) anchor	increase the riser tension	
4	6303	A	The most doubtful and unpredictable factor in a mooring system is the _____.	ability of the anchors to hold in a seabed	anchor chain catenary length	variability of the fairlead	angle of the flukes	
4	6305	B	When dragging of an anchor occurs, you must back it up with a piggyback (backing) anchor or _____.	reduce the riser tension	reposition it at a greater range	change the winch	change the anchor heading	
4	6306	A	An inflatable liferaft is thrown into the water from a sinking vessel. What occurs automatically after the painter trips the CO2 bottles to inflate the raft?	The sea anchor deploys.	The floor inflates.	If upside down, the craft rights itself.	The painter detaches from the raft.	
4	6307	D	Using high working tensions in the mooring system reduces the _____.	hook load at drilling depths over 10,000 feet	possibility of dragging anchors	allowable deck load at operating draft	margin between working tension and breaking strength	
4	6308	D	You are underway at sea when a fire is reported in the forward part of the vessel. The wind is from dead ahead at 20 knots. You should _____.	remain on course and hold speed	change course to put the wind on either beam and increase speed	remain on course but decrease speed	change course and put the stern to the wind	
4	6313	A	The holding power of an anchor increases when the _____.	amount of chain lying along the bottom increases	length of the catenary is reduced	mooring line tension is increased	amount of chain lying along the bottom decreases	
4	6387	B	The vertical height and density of the drilling fluid are used to determine the _____.	casing size	hydrostatic pressure of the drilling fluid	presence of hydrogen sulfide gasses	diameter of the well	
4	6393	C	Lost circulation can cause a kick or blowout by _____.	creating a flow channel outside the casing and back to the surface	lowering the density of the drilling fluid	reducing the mud level in the well	contaminating the drilling fluid	
4	6395	C	The term "lost circulation" refers to situations when drilling fluid is lost by _____.	overflowing the drill nipple	making drill string connections	flowing into drilled formations	an overflow in the mud pits	
4	6397	A	A well kick while drilling from a MODU will cause _____.	increased fluid level in the mud pits	decreased fluid level in the mud pits	increased cuttings on the shale shaker	decreased cuttings on the shale shaker	
4	6401	D	Why must the drilled hole be filled with drilling mud when tripping the drill string out of the hole?	To maintain circulation to the mud pits	To compensate for MODU heave	To keep the mud agitated	To prevent reduction of fluid head on the formations	
4	6402	A	Small passenger vessels in cold water ocean routes, that do not meet the standards for collision bulkheads or subdivision in subchapter S, must carry _____. (small passenger vessel regulations)	100% inflatable buoyant apparatus	at least one hand fire pump	at least two EPIRBs	All of the above.	

4	6413	B	While drilling ahead with 60 foot draft, the DEEP DRILLER encounters lost circulation and loses 900 bbls. of 16 pounds per gallon mud to the hole. How much ballast must be taken on to maintain 60 foot draft?	220 long tons	270 long tons	330 long tons	440 long tons	
4	6415	C	While drilling ahead with 60 foot draft, the DEEP DRILLER encounters lost circulation and loses 460 barrels of 16 pounds per gallon mud to the hole. What is the resulting draft if no additional ballast is taken on?	57 feet	58 feet	59 feet	60 feet	
4	6421	B	While drilling at 4,000 feet with casing set to 2,000 feet, the well kicks with mud weight in the hole. Mud pumps are shut down and the blowout preventer is closed. Compared to the drilling situation, the pressure on the casing seat will be _____.	unchanged	increased	reduced	indeterminable	
4	6423	C	The most accurate method for measuring drilling mud required to fill the hole when drill stem is removed is by use of a _____.	pit level change	pump stroke count	trip tank	mud return flow indicator	
4	6425	B	The test for determining the formation fracture pressure after drilling out a seat is called a _____.	casing test	leak off test	drill stem test	well test	
4	6426	A	Your drafts are: FWD 21'-03", AFT 26'-00". Use the blue pages of the Stability Data Reference Book to determine the location of the center of flotation relative to amidships.	2.8 feet forward	2.1 feet forward	1.6 feet forward	1.9 feet aft	
4	6445	C	What is the function of wearing rings found on some centrifugal pumps?	Absorb erosion of high velocity discharge stream	Seal pump shaft against entry of air	Isolate the outlet side from the inlet side	Dampen the turbulent discharge flow	
4	6455	A	Most drill ships and barges have a walled opening below the derrick, open to the water's surface and through which various drilling tools can pass down to the sea floor called a _____.	moon pool	spider deck opening	pontoon	keyway	
4	6467	D	The series of valves used to control the return flow in well control operations is called the _____.	valve assembly	standpipe manifold	accumulator manifold	choke manifold	
4	6473	B	On an offshore drilling rig, the pumps which circulate drilling fluid through the drill string while drilling are called the _____.	circulation pumps	mud pumps	centrifugal pumps	mixing pumps	
4	6475	C	The pneumatic containers which store bulk dry mud additives and cement on a MODU are called _____.	mud hoppers	bulk bins	P-tanks	mud tanks	
4	6481	C	In MODU operations, hoisting and lowering pipe in and out of the drilled hole is the main function of the _____.	swivel	cathead spool	drawworks	stand pipe	
4	6483	A	In a conventional drilling system, imparting rotation to the drill string is a function of the _____.	rotary table	swivel	motion compensator	diverter	
4	6485	D	The main function of the drawworks on a MODU is to _____.	transport tubulars from the pipe racks to the derrick floor	maintain constant tension on the marine riser	store and secure the excess drill line	lower and hoist the drill string into and out of the drilled hole	
4	6487	B	For most MODU engines, the fuel is _____.	natural gas	diesel oil	propane	bunker fuel	
4	6491	B	How wide must the safety net be that is required on the unprotected perimeter of the helicopter landing deck on a MODU?	1.0 meter	1.5 meters	2.0 meters	2.5 meters	

4	6492	A	The SS AMERICAN MARINER has drafts of: FWD 16'-10", AFT 19'-04". Use the white pages of the Stability Data Reference Book to determine the drafts if you ballast the forepeak with 73 tons of seawater.	FWD 17'-05.8", AFT 18'-10.9"	FWD 17'-06.2", AFT 18'-10.4"	FWD 17'-06.8", AFT 18'-09.8"	FWD 17'-07.4", AFT 18'-09.2"	
4	6493	D	A helicopter making a round trip from a helodeck with refueling capabilities to an unmanned platform will take 45 minutes each way. The helicopter should be carrying enough fuel to last _____.	45 minutes	1 hour and 15 minutes	1 hour and 30 minutes	2 hours	
4	6495	C	A small fuel spillage has occurred during helicopter refueling. After the leak has been stopped and fire-control personnel have been notified and are standing by, the next step is to _____.	proceed with fueling operation	have helicopter move to a safer location	wash spilled fuel away with a flood of water	clean spilled fuel with rags	
4	6496	B	In a water-tube marine type boiler, after the steam leaves the generating tubes, in what part of the boiler is temperature of the steam increased?	Mud drum	Superheater	Economizer	Firebox	
4	6497	B	The only type of helicopter that may be refueled with the engine running and the blades turning is _____.	a helicopter carrying cargo only	a turbine-equipped helicopter	a Sikorsky	a helicopter carrying injured personnel in an emergency situation	
4	6501	A	At a refueling area or fuel facility, smoking or any flame or spark is prohibited _____.	within 50 feet	anywhere on the helodeck	during refueling operations	within 100 feet	
4	6503	D	If, during helicopter refueling operations, fuel is spilled on clothing, the person should first _____.	see the medic immediately	spray himself with foam or CO2	complete his task and then see the medic	remove the clothing and wash	
4	6505	C	A MODU helicopter landing deck on which fueling operations are conducted must have a fire protection system that is capable of discharging at 100 psi pressure a foam spray of at least _____.	30 gallons per minute	40 gallons per minute	50 gallons per minute	60 gallons per minute	
4	6507	A	Especially in adverse weather, risk of collision with an offshore supply vessel increases when the vessel is moored to what side of the unit?	Upwind	Downwind	Crosswind	Downcurrent	
4	6513	B	Consideration should be given in planning for the mooring orientation in a new location so that in adverse weather a crane is available to off-load the supply vessel on what side of the unit?	Weather side	Leeward side	Upwind side	Crosswind side	
4	6515	D	While off-loading from an offshore supply vessel with the crane, the wind increases in strength and changes direction significantly, you should _____.	expedite off-loading	stop off-loading, but keep the offshore supply vessel in the present location	continue off-loading with no changes	move the offshore supply vessel to the downwind side	
4	6517	B	Prior to backloading portable tanks or drums onto an offshore supply vessel, check that each tank is _____.	painted yellow with diagonal black striping	capped and checked for leaks	coated with non-corrosive protection	mounted on pallets	
4	6521	A	When cargo aboard a jack-up in transit becomes adrift, the tow vessel should be asked to _____.	turn into the seas	turn to be parallel to the seas	reduce speed	increase speed	
4	6523	C	On the cargo manifest, the total weight of a box containing cargo is the _____.	tare weight	net weight	gross weight	cargo weight	
4	6525	A	On the cargo manifest, the total weight of an empty cargo box is the _____.	tare weight	net weight	gross weight	cargo weight	
4	6527	C	On the cargo manifest, the gross weight of a box containing cargo is the weight of the _____.	cargo	box	cargo and box	rate weight	

4	6531	B	On the cargo manifest, the weight of the cargo inside a box is called the _____.	gross weight	net weight	light weight	rate weight	
4	6533	A	When loading or discharging dry mud or cement, crew members should use facial respirator masks and _____.	goggles	ear plugs	soft-soled boots	fireman's outfit	
4	6537	A	When pumping fuel between an offshore supply vessel (OSV) and a MODU, there must be direct VHF radio contact between the offshore supply vessel engineer and the _____.	person in charge of the fuel transfer	crane operator	ballast control operator	barge superintendent	
4	6543	D	Corrosive liquids and acids should have what kind of label?	Skull and crossbones	Yellow	Red	White	
4	6545	C	Flammable liquids should have what kind of label?	Skull and crossbones	Yellow	Red	White	
4	6547	C	Nonflammable gases should have what kind of label?	Skull and crossbones	White	Green	Red	
4	6551	C	When referring to quantity of barite in a P-tank, ullage is the _____.	distance of the barite surface above the tank bottom	percentage of barite in the tank	distance of the barite surface below the tank cover	total weight of barite in UPC (ullages per centimeter)	
4	6553	D	While taking on fuel oil from an offshore supply vessel, the transfer hose leaks, causing a sheen in the water. You should _____.	continue transfer operations	repair the leak with duct tape	reduce the rate of transfer	immediately shut down operations	
4	6555	A	The chemicals in sacks aboard MODU's are palletized to reduce _____.	labor in loading and handling	pilferage	marking and labeling	contamination	
4	6563	A	When loading or discharging dry mud or cement, crew members should use goggles and _____.	facial respirator mask	ear plugs	rubberized boots	fireman's outfit	
4	6567	C	On offshore drilling units, the number of industrial personnel permitted to be on board during drilling operations is found on the _____.	Classification Certificate	Safety of Life at Sea Certificate	U.S. Coast Guard Certificate of Inspection	Owner's Operation Manual	
4	6571	B	To determine the number of portable fire extinguishers required on a mobile offshore drilling unit, you should check the _____.	hot work permit	Certificate of Inspection	Safety of Life at Sea Certificate	Operations Manual	
4	6573	C	To determine the number of industrial personnel allowed on a mobile offshore drilling unit, you should check the _____.	Muster List ("Station Bill")	Safety of Life at Sea Certificate	Certificate of Inspection	Operations Manual	
4	6575	D	To determine the number of inflatable liferafts required on a mobile offshore drilling unit, you should check the _____.	load line certificate	Operations Manual	stability letter	Certificate of Inspection	
4	6577	B	According to the regulations for mobile offshore drilling units, "industrial personnel" are considered to be all persons carried on the MODU for the sole purpose of carrying out the industrial business of the unit, except for _____.	the operator's representative	the crew required by the Certificate of Inspection	the galley personnel	the designated person in charge	
4	6580	A	The brickwork surrounding the firebox of a boiler is known as _____.	refractory	the screen wall	the water wall	fire plate	
4	6581	D	If a fixed foam firefighting system on a MODU is not of the premix type, a sample of the foam liquid must be tested by _____.	a Coast Guard inspection officer	the safety man aboard the unit	the designated person in charge of the unit	the manufacturer or his authorized representative	
4	6583	B	When weight-testing a davit-launched liferaft on a mobile offshore drilling unit, the test weight must be equivalent to the weight of the raft, its required equipment, and _____.	90% of the allowed capacity of persons for the raft	100% of the allowed capacity of the persons for the raft	110% of the allowed capacity of the persons for the raft	120% of the allowed capacity of the persons for the raft	

4	6585	B	When weight-testing a davit launched liferaft on a mobile offshore drilling unit, the deadweight equivalent for each person in the allowed capacity of the raft is _____.	155 pounds	165 pounds	175 pounds	185 pounds	
4	6593	C	What organization is approved by the Coast Guard for certifying cranes on mobile offshore drilling units?	Minerals Management Service	International Maritime Organization	American Bureau of Shipping	Lloyd's of London	
4	6594	B	How many B-II fire extinguishers must be in the machinery space of a 175-foot long fishing vessel propelled by engines with 2500 brake horsepower?	2	3	4	5	
4	6595	D	How often must a rated load test be performed on a crane on a MODU?	Every 12 months	Every 24 months	Every 36 months	Every 48 months	
4	6603	D	A weathertight door on a MODU must not allow water to penetrate into the unit in _____.	50 knot winds	70 knot winds	100 knot winds	any sea condition	
4	6604	A	Fusible-link fire dampers are operated by _____.	the heat of a fire melting the link	a break-glass and pull-cable system	electrical controls on the bridge	a mechanical arm outside the vent duct	
4	6605	B	All fire hoses on mobile offshore drilling units must be tested to a pressure of at least _____.	100 psi	110 psi	120 psi	130 psi	
4	6607	D	To determine the number of Able Seamen required on a mobile offshore drilling unit, you should check the _____.	load line certificate	Operations Manual	Safety of Life at Sea Certificate	Certificate of Inspection	
4	6611	A	Any firefighting equipment that is carried in addition to the minimum required number on a MODU must _____.	meet the applicable standards	be marked as additional equipment	be stowed in a separate area	All of the above	
4	6613	A	What class of bulkhead is required around the galley on a MODU?	Class A	Class B	Class C	Class D	
4	6615	B	Where are self-closing doors required on a MODU?	In the galley	In each stair tower	To each sleeping room	To the engine room	
4	6617	C	On offshore drilling units, sleeping spaces for the regular personnel employed on board may not berth more than _____.	two persons	three persons	four persons	five persons	
4	6618	A	The SS AMERICAN MARINER has on board 6048 tons of cargo with an LCG-FP of 270.71 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo.	LCG-FP 267.03 feet	LCG-FP 267.92 feet	LCG-FP 268.66 feet	LCG-FP 269.94 feet	ST-0193
4	6619	C	The SS AMERICAN MARINER has on board 6450 tons of cargo with an LCG-FP of 270.89 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo.	LCG-FP 267.12 feet	LCG-FP 268.48 feet	LCG-FP 270.97 feet	LCG-FP 273.06 feet	ST-0194
4	6621	C	Locations on a MODU where flammable hydrocarbon gas or vapors may accumulate due to drilling operations are defined as _____.	gaseous locations	hazardous locations	classified locations	designated locations	
4	6623	A	Each hose in the fuel transfer system for helicopter refueling must have a _____.	static grounding device	quick-disconnect nozzle	splash guard	vapor recovery system	
4	6624	C	The color of the signal flare sent up by a submarine indicating that a torpedo has been fired in a training exercise is _____,	red	white	green	red	
4	6625	A	Each hose in the fuel transfer system for helicopter refueling must meet the standards of the _____.	Federal Aviation Administration	Corps of Engineers	National Fire Protection Association	National Transportation Safety Board	

4	6626	C	Your drafts are: FWD 23'-03", AFT 24'-01". Use the blue pages of the Stability Data Reference Book to determine the vessels displacement if you are in fresh water.	11,650 tons	11,800 tons	12,000 tons	12,250 tons	
4	6627	D	A cutoff valve in the fire-main system of a MODU may be closed to protect the portion of the system on an exposed deck from _____.	damage from crane operations	being used for wash down purposes	accidental diversion of flow to wrong location	freezing	
4	6631	A	All portable fire extinguishers must be capable of being _____.	carried by hand to a fire	carried or rolled to a fire	recharged in the field	used on class "B" fires	
4	6633	C	For a MODU not on an international voyage, an approved substitute for an impulse projected rocket-type line throwing appliance is a _____.	spring loaded line thrower	hand thrown buoyant line	shoulder-type line throwing gun	heaving line	
4	6635	B	What is the minimum required number of ring life buoys on a MODU?	4	8	12	16	
4	6637	C	Of the required ring life buoys for a MODU, how many must be equipped with a water light?	1	2	4	8	
4	6641	B	On a MODU, how many ring buoys are required to have a buoyant line attached?	One ring life buoy	One ring life buoy on each side of the MODU	Three ring life buoys	Two ring life buoys on each side of the MODU	
4	6643	D	How many adult life jackets are required on board a MODU?	Enough for 100 percent of the persons allowed on board	One for each work station and industrial work site	Enough for 150 percent of the persons allowed on board	Both A & B above	
4	6645	D	Offshore drilling units that are on an international voyage must have a portable radio apparatus that meets the requirements of the _____.	American Bureau of Shipping	Minerals Management Service	U.S. Coast Guard	Federal Communications Commission	
4	6646	D	Fire in an engine compartment is best extinguished with carbon dioxide gas (CO2) and by _____.	closing the compartment except for the ventilators	increasing the air flow to the compartment by blowers	leaving the compartment open to the air	completely closing the compartment	
4	6647	B	For means of abandonment of a MODU, which type of embarkation does not require prior approval by the Coast Guard?	Movable ladders	Fixed ladders	Safety booms	Elevators	
4	6651	B	The factor of safety, based on the elastic limit of the material, for the forks used on power operated industrial trucks aboard a MODU must be at least _____.	2 to 1	3 to 1	4 to 1	5 to 1	
4	6653	C	Diesel powered industrial trucks on a MODU that are provided with safeguards to the exhaust, fuel, and electrical systems are designated _____.	DEFE	DE	DS	DES	
4	6655	D	Power operated cranes used on a MODU must not be powered by _____.	diesel engines	chargeable batteries	electric motors	gasoline engines	
4	6657	B	The design specifications for cranes and crane foundations on MODU's are set and published by the _____.	American Society of Mechanical Engineers	American Petroleum Institute	Society of Petroleum Engineers	American Society of Civil Engineers	
4	6660	B	Your drafts are: FWD 24'-09", AFT 27'-02". Use the blue pages of the Stability Data Reference Book to determine the vessels displacement if you are in fresh water.	13,075 tons	13,350 tons	13,590 tons	13,700 tons	
4	6661	A	On a self-elevating drilling unit, draft marks must be located _____.	near each corner of the hull	at frame O, port and starboard	at bow and stern on the centerline	on each leg	

4	6663	B	A branch line valve of a fire extinguishing system on a MODU must be marked with the _____.	maximum pressure allowed at that branch	name of the space or spaces which it serves	date of the last maintenance inspection	pressure needed to maintain an effective stream at that point	
4	6665	A	On a MODU, a cabinet or space containing the controls or valves for the fixed firefighting system must be _____.	posted with instructions on the operation of the system	ventilated and equipped with explosion-proof switches	painted with red and black diagonal stripes	equipped with a battery powered source of emergency lighting	
4	6667	C	On a MODU, the locker or space containing the self-contained breathing apparatus must _____.	be located in close proximity to the main control station	be equipped with battery powered emergency lighting	be marked "SELF-CONTAINED BREATHING APPARATUS"	All of the above	
4	6671	D	Each hand portable fire extinguisher on a MODU must be marked with _____.	the name of the unit on which it is located	the date that it was installed on the unit	the names of the individuals qualified to use it	an identification number different from other extinguishers on the unit	
4	6673	A	Each emergency light on a MODU must be marked with _____.	the letter "E"	an arrow pointing to the nearest exit	a no-smoking symbol	the word "DANGER"	
4	6675	B	According to the MODU regulations, the capacity of a liferaft is required to be marked _____.	on the Muster List ("Station Bill")	on a sign next to the liferaft	on the Certificate of Inspection	in the Operations Manual	
4	6677	C	The instructions for launching lifeboats and liferafts on a MODU must be approved by the _____.	lease operator	Minerals Management Service	Coast Guard	person-in-charge of the unit	
4	6681	D	On a MODU, a door that is required to be marked "KEEP CLOSED" is designed to _____.	prevent the passage of flammable gases	prevent the passage of poisonous vapors	delay the spread of heat and flames	maintain watertight integrity	
4	6683	D	How must each storage tank for helicopter fuel on a MODU be marked?	DANGER - KEEP AWAY	DANGER - EXPLOSIVE VAPORS	DANGER - NO SMOKING	DANGER - FLAMMABLE LIQUID	
4	6684	B	The SS AMERICAN MARINER has drafts of: FWD 19'-04", AFT 21'-02". Use the white pages of the Stability Data Reference Book to determine the drafts if you ballast the forepeak with 68 tons of seawater.	FWD 19'-09.7", AFT 20'-10.0"	FWD 19'-11.1", AFT 20'-09.4"	FWD 19'-11.7", AFT 20'-08.8"	FWD 20'-00.3", AFT 20'-08.2"	
4	6685	D	On a MODU, when may a work vest be substituted for a required life preserver?	To replace a damaged life preserver	For use during fire drills	For use during boat drills	At no time	
4	6686	D	Your drafts are: FWD 24'-09", AFT 27'-02". Use the blue pages of the Stability Data Reference Book to determine the vessels displacement if you are in salt water.	13,175 tons	13,350 tons	13,490 tons	13,620 tons	
4	6687	B	A MODU must have a self-contained breathing apparatus to be used as protection from gas leaking from a refrigeration unit. To meet this requirement, you may use _____.	a gas mask certified by the Mine Safety and Health Administration	the same self-contained breathing apparatus required with the fireman's outfit	an oxygen breathing apparatus, provided that the device has been inspected within three years	a portable ventilation system that will provide a complete change of air every three minutes	
4	6693	C	The litter on a MODU must be able to _____.	carry at least two injured persons	float for at least two hours	be used on the types of helicopters serving the unit	All of the above	
4	6695	A	Each buoyant work vest on a MODU must be _____.	Coast Guard approved	marked with the name of the unit	equipped with a water light	All of the above	
4	6697	C	For use as protection from gas leaking from a refrigeration unit, each MODU must be equipped with a _____.	portable ventilation system	flame safety lamp	self-contained breathing apparatus	gas mask	
4	6703	D	The person-in-charge of a mobile offshore drilling unit must be designated by the _____.	Coast Guard	Minerals Management Service	operator or his agent	owner or his agent	

4	6705	D	The immersion suit requirements for MODU's apply to units operating in the Atlantic Ocean above _____.	20°North and below 20°South	25°North and below 25°South	30°North and below 30°South	32°North and below 32°South	
4	6707	D	The immersion suit requirements apply to MODU's operating in all waters above _____.	20°N and below 25°S	25°N and below 30°S	23°N and below 23°S	32°N and below 32°S	
4	6711	C	Immersion suits must be stowed _____.	in the pilothouse	on top of lockers	where readily accessible	on open deck areas	
4	6715	C	The person in charge shall insure that each lifeboat on a MODU is lowered to the water, launched, and operated at least once every _____.	month	2 months	3 months	6 months	
4	6721	C	Each hand portable, semi-portable and fixed fire extinguishing unit on a MODU must be tested and inspected at least once every _____.	six weeks	six months	twelve months	two years	
4	6724	C	In a water tube marine boiler, what protects the superheater tubes from the fires of combustion?	Water-wall tubes	Downcomers	Screen tubes	Water drums	
4	6725	B	The person responsible for maintaining clean and sanitary conditions in the accommodation spaces of a MODU is the _____.	Chief Steward	Master or person in charge	Chief Engineer	Tool Pusher	
4	6731	C	During the required periodic abandon ship drill aboard a MODU, each person not assigned duties in the muster list is _____.	instructed in the use of portable fire extinguishers	shown a video demonstrating lifeboat launching	instructed in the use of life jackets	not required to attend the boat drill	
4	6733	C	The person in charge of a MODU shall insure that the fuel tank of each motor propelled lifeboat is emptied, and the fuel is changed at least once every _____.	3 months	6 months	12 months	24 months	
4	6735	C	On a MODU, each EPIRB or SART must be tested at least once _____.	each week	every two weeks	each month	every two months	
4	6737	C	Each EPIRB required on a MODU shall be tested using the integrated test circuit and output indicator every _____.	week	two weeks	month	two months	
4	6742	A	With an approved combination nozzle, low-velocity fog is produced by _____.	inserting an applicator in the nozzle	putting the handle of the nozzle in the forward position	directing a straight stream of water against the ship's structure	the combination nozzle only when the water pressure exceeds 125 psi	
4	6743	B	The required fireman's outfits required for MODU's are not to be used for any other purpose EXCEPT for the _____.	oxygen and explosion meter when it is used for detection of flare gases	self-contained breathing apparatus, when used as protection from gas leaking from a refrigeration unit	boots and gloves that are made of rubber or electrically non-conductive material, if used when repairing electrical equipment	lifeline, if used by personnel entering a compartment which might be deficient of oxygen	
4	6745	C	Fire axes required on MODU's must be stored in the enclosure for fire hoses with the location marked "_____".	Fire Axe Location	Hose Station No. ____	Fire Station No. ____	Firefighting Equipment	
4	6747	B	How many people on board a MODU must be trained in the use of the fireman's outfit?	1	2	3	4	
4	6753	C	If not attached to the nozzle, each low-velocity spray applicator on a MODU must be stowed _____.	in a protected area on the main deck	inside a machinery space near the entrance	next to the fire hydrant to which the fire hose is attached	on a rack inside the quarters near the entrance	
4	6755	C	Each fireman's outfit and its spare equipment on a MODU must be stowed _____.	in a locked cabinet in the machinery space	in an unlocked cabinet in the machinery space	in a separate and accessible location	at a fire hydrant location	

4	6757	C	On Offshore Drilling units, in addition to the life jackets stowed at each berth location, life jackets must be stowed at each work station and _____.	the mess room	each lifeboat	each industrial work site	each fire station	
4	6761	D	Each distress signal and self-activated smoke signal must be replaced not later than the marked date of expiration, or, from the date of manufacture, not later than _____.	6 months	12 months	24 months	42 months	
4	6765	C	A qualified person must be assigned as the second in command of a lifeboat on a MODU if the lifeboat has a capacity of more than _____.	20 persons	30 persons	40 persons	50 persons	
4	6767	B	A life preserver or buoyant work vest is required to be worn on a MODU when a person is _____.	working on the rig floor	working over water	working on the pipe racks	operating line throwing equipment	
4	6772	C	Your drafts are: FWD 23'-03", AFT 27'-01". Use the blue pages of the Stability Data Reference Book to determine the vessels displacement if you are in salt water.	12,750 tons	12,900 tons	13,150 tons	13,250 tons	
4	6785	C	Each EPIRB required on a MODU shall be stowed in a manner which will permit _____.	easy access to its storage compartment	replacement of the battery without exposure to the weather	it to float free if the unit sinks	it to remain attached to the unit	
4	6786	C	The color of the signal flare sent up by a submarine to indicate an emergency is _____.	white	yellow	red	green	
4	6791	B	At the required fire drill conducted aboard a MODU, all persons must report to their stations and demonstrate their ability to perform the duties assigned to them _____.	by the toolpusher	in the Muster List ("Station Bill")	by the person conducting the drill	at the previous safety meeting	
4	6793	B	The person on a MODU who is responsible for maintaining the engineering spaces in a clean and sanitary condition is the _____.	Master, or person in charge	Chief Engineer, or engineer in charge if no chief engineer is required	senior mechanic, or mechanic on duty if no senior mechanic designated	senior electrician, or electrician on duty if no senior electrician designated	
4	6795	C	Mobile offshore drilling units not required to have an official logbook shall _____.	maintain a logbook on Form CG-706	not be required to maintain a logbook	maintain an unofficial logbook	report only major events to the OCMI	
4	6797	A	Where must you record the date of each emergency training drill conducted on a MODU?	In the logbook	In the Operations Manual	On the Certificate of Inspection	On the muster list	
4	6801	D	Where must the 0mster or person in charge of a MODU record the date of each test of emergency lighting and power systems and the condition and performance of the equipment?	On the Certificate of Inspection	On the Muster List ("Station Bill")	In the Operations Manual	In either the official or unofficial log	
4	6805	A	The record of tests and inspection of fire fighting equipment on board a MODU must include _____.	the name of the person conducting the test	the weight of the charge	recommendations for the next test	All of the above	
4	6806	C	A fire has broken out on the stern of your vessel. You should maneuver your vessel so the wind _____.	blows the fire back toward the vessel	comes over the stern	comes over the bow	comes over either beam	
4	6807	C	The Master or person in charge of a MODU shall ensure the crane record book shows _____.	the name of the crane operator	an entry each time the crane is used	date and result of each rated load test	the time of day of the test	
4	6811	A	A mobile offshore drilling unit crane certificate is required to be maintained _____.	on the unit	in the company office	on file with the OCMI	on file with the American Bureau of Shipping	
4	6813	B	The Master or person in charge of a mobile offshore drilling unit shall ensure the crane record book shows _____.	the name of the operator	the American Petroleum Institute name plate data	the average load in pounds each usage	All of the above	

4	6817	D	How long must the records of tests and inspections of fire fighting equipment on board a MODU be retained on board?	6 months	1 year	3 years	Until the next inspection for certification	
4	6821	D	How long shall the Master or person in charge of a MODU maintaining an unofficial logbook retain this logbook on board?	6 months	1 year	5 years	Until the next inspection for certification	
4	6823	A	The Master or person in charge of a MODU is required to log _____.	the date and hour of each fire drill	the names of all persons on board	only casualties which occur while underway	every event occurring on board	
4	6825	D	The Master or person in charge of a MODU is required to log _____.	the names of all persons on board	only the names of the crew members on board	only the names of passengers on board	information on emergency training drills	
4	6827	A	What must be entered in the unofficial logbook by the Master or person in charge of a mobile offshore drilling unit after conducting a fire drill?	The condition of all fire fighting equipment, watertight door mechanisms, and valves used during each drill	The location of the unit at the time each drill is conducted	The name of each crew member who participated in the drill and their responsibilities	All of the above	
4	6831	A	After conducting an abandonment drill, the Master or person in charge of a MODU shall log _____.	the names of crew members who participated in the drill	the length of time that each motor propelled lifeboat was operated in the drill	the length of time the lifeboat was in the water	the time it took to lower the boat	
4	6833	C	If a drill required by regulations is not completed on a mobile offshore drilling unit, the Master or person in charge must _____.	report this immediately to the OCMI	report this immediately to the Commandant of the Coast Guard	log the reason for not completing the drill	conduct two of the required drills at the next opportunity	
4	6837	B	With regard to accommodation spaces on board mobile offshore drilling units, what must the Master or person in charge log?	The name of each person berthed in each space	The date of each inspection of each space	The condition of each space at the beginning of a trip	The number of persons assigned to each space	
4	6838	D	What is an advantage of a steam turbine over a diesel for the main propulsion?	Faster response from ahead to astern	Less fuel consumption	Cheaper initial installation cost	Less weight per unit of horsepower	
4	6841	B	What must the Master or person in charge of a MODU enter in the logbook after conducting an abandonment drill?	The sea condition at the time of the drill	Which survival craft was used	The names of all crew members participating in the drill	The name of the lifeboatman in charge of each boat	
4	6843	B	With regard to the opening and closing of watertight integrity appliances not fitted with a remote operating control or alarm system, what must the Master or person in charge of a MODU enter in the logbook?	The time required to close the appliances	The reason for opening or closing each appliance	The name of the person performing the opening and closing of such appliances	The fact that the hull indicators functioned or not	
4	6845	A	After conducting a boat drill on a mobile offshore drilling unit, what must the Master or person in charge enter in the in the logbook?	Any inoperative equipment and the corrective action taken	The name of the lifeboatman in charge of each lifeboat	The location of the vessel at the time of the drill	The time it took to lower the boat	
4	6847	A	What must the Master or person in charge of a MODU enter in the logbook after conducting a boat drill?	Which survival craft was used in the drill	The number of each lifeboat not lowered during each drill	Only the number of each motor propelled lifeboat that is lowered	The length of time an oar propelled lifeboat is rowed	
4	6853	C	Regulations require that line throwing equipment on mobile offshore drilling units be tested at regular intervals. What entry should be made in the logbook?	No entry is required unless it is an official logbook.	An entry is required only if there is a failure.	Only the date of the test	The name of the person making the test	

4	6855	A	The Master or person in charge of a MODU shall ensure the crane record book shows the _____.	date and description of each failure	average load in pounds for each usage	total number of lifts for each usage	All of the above	
4	6856	B	Fire dampers prevent the spread of fire by _____.	conduction	convection	radiation	direct contact	
4	6857	C	Prior to getting underway, the Master or person in charge of a MODU must _____.	conduct a fire drill	conduct a boat drill	log the fore and aft draft marks	test the emergency generator	
4	6858	A	A hydraulic accumulator is designed to _____.	store fluid under pressure	act as a fluid reservoir	provide overpressure relief	replenish fluid to a system	
4	6861	A	Prior to getting underway in fresh or brackish water, the Master or person in charge of a MODU must _____.	log the density of the water	secure all overboard discharges	take on fresh water ballast	clean the sides with fresh water	
4	6863	C	When are fore and aft draft readings required to be entered in the unofficial logbook of a MODU?	Once a day	Once a week	Prior to getting underway	Only when entering waters of different density	
4	6867	D	When must the Master or person in charge of a MODU log the position of load line marks in relation to the surface of the water in the logbook?	Once a day	At the change of every watch	Only when in fresh or brackish water	Prior to getting underway	
4	6871	A	Lifeboat winches on mobile offshore drilling units are required to be inspected and an entry made in the logbook. How often should this entry be made?	Every 3 months	Every 6 months	Every year	Only after conducting a boat drill	
4	6895	B	Who is responsible for reporting a casualty to a mobile offshore drilling unit?	The pilot	The owner	The surveyor	The engineer	
4	6897	B	Who shall insure that all records required by regulations are retained on board a mobile offshore drilling unit involved in a casualty?	Officer in Charge, Marine Inspection	Owner	Pilot	Engineer	
4	6901	D	In the event of a casualty to a MODU, who is responsible to make records available to the Coast Guard official authorized to investigate the casualty?	Officer in Charge, Marine Inspection	The person who caused the casualty	The company man	The owner	
4	6903	B	The Master or person in charge of a MODU is required to submit a casualty report of an intentional grounding under what condition?	At the owner's discretion	If it creates a hazard to navigation	If the grounding lasts over 48 hours	Under any condition	
4	6905	A	The Master or person in charge of a MODU is required to submit a casualty report of an intentional grounding when it _____.	creates a hazard to the vessel	will last longer than 24 hours	will last longer than 48 hours	occurs in international waters	
4	6907	A	On offshore drilling units, notification shall be given to the Coast Guard of a casualty if a person is injured and unable to perform routine duties for _____.	any amount of time	more than 24 hours	more than 36 hours	more than 72 hours	
4	6908	B	Topside icing decreases vessel stability because it is usually off-center and _____.	increases displacement	increases the height of the center of gravity	increases draft	reduces the pocketing of free surface	
4	6911	C	According to regulations, a Master or person in charge of a MODU is required to submit a report of a loss of life _____.	only when it happens while underway	to the next of kin	to the nearest OCMI	to the nearest coroner	
4	6913	C	According to regulations, a Master or person in charge of a MODU is required to submit a report of a loss of life _____.	only when it happens while underway	to the next of kin	to the nearest Marine Safety or Marine Inspection Office	to the nearest coroner	

4	6915	A	When a MODU is involved in a casualty, the cost of property damage includes _____.	the cost of labor and material to restore the property to the service condition which existed prior to the casualty	the loss of revenues while the unit is being repaired, up to a maximum of $50,000	the damage claims awarded to individuals or companies involved in the casualty, up to a maximum of $50,000	All of the above	
4	6917	C	Injuries resulting in loss of life or incapacitation, aboard vessels, must be reported to the _____.	Minerals Management Service	American Petroleum Institute	U.S. Coast Guard	International Association of Drilling Contractors	
4	6921	B	The notice of casualty to a MODU must include _____.	a request for assistance	the location of the unit at the time of the casualty	an estimate of the cost to repair damages	the amount of fuel remaining	
4	6925	B	After a report of casualty to a mobile offshore drilling unit, what record must be kept on board?	The Oil Record Book	The crane record book	All chart catalogs	The machinery maintenance logbook	
4	6927	A	Records which must be retained on board after report of casualty to a MODU include the _____.	tour reports	hull reports	machinery repair record book	deck equipment log	
4	6931	D	A report of casualty to a mobile offshore drilling unit must include _____.	the estimated cost of damage to the unit	an evaluation of who was at fault	the amount of ballast on board	the name of the owner or agent of the unit	
4	6933	C	Under the regulations for mobile offshore drilling units, you must submit a casualty report for which occurrence?	A man overboard	Property damage in excess of $20,000	Accidental grounding	Loss of an emergency generator	
4	6937	C	A casualty report of an intentional grounding of a MODU is required under what condition?	Under any condition	If the grounding lasts over 24 hours	If it creates a hazard to the environment	At the owner's discretion	
4	6941	A	On offshore drilling units, any reports of a casualty that are made are required to be retained on board for a period of at least _____.	3 months	6 months	12 months	24 months	
4	6943	C	A written report of casualty to a MODU shall be made _____.	within 12 hours of the casualty	to the Commandant of the Coast Guard	on Form CG 2692	only if the damage exceeds $1,500	
4	6945	C	Which record must be retained on board after a report of casualty to a mobile offshore drilling unit?	Oil Record Book	Chart catalogs	Personnel list	Hull report	
4	6946	C	Your drafts are: FWD 20'-08", AFT 25'-03". Use the blue pages of the Stability Data Reference Book to determine the MT1.	1130 foot-tons	1095 foot-tons	1070 foot-tons	1025 foot-tons	
4	6947	B	Which record must be retained on board after a report of casualty to a MODU?	Preventive maintenance log	Storage plans	Oil Record Book	Repair record book	
4	6953	A	After reporting a casualty to a mobile offshore drilling unit, which record must be retained on board?	Record of drafts	Hull reports	Anchor record	Machinery repair book	
4	6955	B	Regulations require certain records to be retained on board a MODU for how long after the report of a casualty?	1 month	3 months	6 months	12 months	
4	6957	D	Regulations require certain records to be retained on board for at least 3 months after a MODU is involved in a casualty or until advised that they are no longer needed on board by the _____.	owner	Master	person in charge	Officer in Charge, Marine Inspection	
4	6961	C	A report of casualty to a mobile offshore drilling unit must be made in writing to which office?	Commandant of the Coast Guard	Owner of the unit	Nearest Coast Guard Marine Safety Office	Captain of the nearest port	
4	6965	B	In the case of a casualty involving a MODU, the Master, owner, agent or person in charge shall make the records required by regulation available upon request to _____.	anyone involved in the casualty	any Coast Guard official authorized to investigate the casualty	the local Captain of the Port	All of the above	

4	6967	D	A MODU must report a collision with an aid to navigation maintained by the Coast Guard to which office?	Nearest Oceanographic office	The Marine Safety Center at Coast Guard Headquarters	National Ocean Service	Nearest Officer in Charge, Marine Inspection	
4	6981	A	The emergency power system for the DEEP DRILLER should be placed in operation when the weather forecast predicts winds greater than 90 knots and when _____.	evacuating the unit	ballasting	deballasting	unexpected list and trim exist	
4	6985	B	The COASTAL DRILLER, while operating with minimal wave clearance, is inclined 0.5 degrees bow down. Lowering the stern may place the hull in the wave action. The recommended course of action is to _____.	prepare to take action in case inclination increases	jack the hull up on the bow leg	jack the hull down on the aft two legs	transfer weight, such as drill water, toward the stern	
4	6987	C	Severe airway burns can cause _____.	nausea	reddening of cheeks	complete obstruction of respiratory passages	nosebleed	
4	6991	B	The FIRST treatment of a person suspected of having airway burns is to _____.	move him to a cool location	maintain an open airway	apply a cool damp dressing to his neck	have him drink cool liquids	
4	7003	A	When treating a chemical burn, you should flood the burned area for at least _____.	five minutes	ten minutes	fifteen minutes	twenty minutes	
4	7005	A	Chemical burns are caused by the skin coming in contact with _____.	acids or alkalies	diesel oil	acids, but not alkalies	alkalies, but not acids	
4	7006	D	What is NOT a function of the steam drum of a marine water-tube boiler?	Receives saturated steam from the generating tubes	Serves as a reservoir of boiler feed water	Holds internal fittings for separation of moisture from steam	Collects steam exhausted from the turbines	
4	7007	D	What precaution should be taken when treating burns caused by contact with dry lime?	Water should be applied in a fine spray.	The burned area should be immersed in water.	The entire burn area should be covered with ointment.	Before washing, the lime should be brushed away gently.	
4	7025	A	A patient suffering from heat exhaustion should be___ _____.	moved to a cool room and told to lie down	kept standing and encouraged to walk slowly and continuously	given a glass of water and told to return to work after 15 minutes of rest	None of the above are correct	
4	7032	C	Overspeed of the diesel engine driving an electric generator could cause _____.	low voltage trip	reverse power trip	damage to windings	excessive exhaust temperatures	
4	7033	D	A person with diabetes has received a minor leg injured. The symptoms of the onset of a diabetic coma may include _____.	reduced appetite and thirst	sneezing and coughing	only a low grade fever	slurred speech and loss of coordination	
4	7035	B	If a diabetic suffers an insulin reaction and is conscious, he should be given _____.	soda crackers and water	orange juice	an ounce of whiskey	a glass of milk	
4	7037	B	Epilepsy is a chronic nervous disorder characterized by _____.	severe nausea and cramps	muscular convulsions with partial or complete loss of consciousness	sudden thirst and craving for candy	severe agitation and desire to get out of closed spaces	
4	7041	D	A crew member is having an epileptic convulsion. You should _____.	give the victim artificial respiration	completely restrain the victim	give the victim one 30 mg. tablet of phenobarbital	keep the victim from injuring him or herself	
4	7046	D	A fire has broken out on the stern of your vessel. You should maneuver your vessel so the wind _____.	blows the fire back toward the vessel	comes over either beam	comes over the stern	comes over the bow	
4	7051	C	When a patient is suspected of having appendicitis, the primary action is to _____.	give the patient a laxative to relieve pain	give the patient morphine sulfate to relieve pain	confine to bed until helicopter arrives	give the patient aspirin with a glass of water	

4	7052	A	The SS AMERICAN MARINER has on board 4850 tons of cargo with an LCG-FP of 274.46 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo.	LCG-FP 271.23 feet	LCG-FP 270.96 feet	LCG-FP 269.52 feet	LCG-FP 267.88 feet	ST-0195
4	7053	A	When a patient is suspected of having appendicitis, the pain should be relieved by _____.	keeping an ice bag over the appendix area	giving the patient a laxative	giving the patient morphine sulfate	giving the patient aspirin with a glass of water	
4	7056	B	Your drafts are: FWD 23'-03", AFT 27'-01". Use the blue pages of the Stability Data Reference Book to determine the vessels displacement if you are in fresh water.	12,550 tons	12,900 tons	13,200 tons	13,350 tons	
4	7058	D	Blocking open or removing fire dampers can cause _____.	fixed foam systems to be ineffective	faster cooling of the fire	the accumulation of explosive gases	the fire to spread through the ventilation system	
4	7062	A	You are aboard a liferaft in a storm. What should you do with your Emergency Position Indicating Radio Beacon?	Bring it inside the liferaft and leave it on.	Bring it inside the liferaft and turn it off until the storm passes.	Leave it outside the liferaft and leave it on.	Leave it outside the liferaft but turn it off.	
4	7066	B	What does blowing tubes accomplish?	Eliminates unburned fuel oil residues from the firebox	Increases boiler efficiency	Flushes away mineral deposits inside the water tubes	Cleans soot deposits from the inside of the stack	
4	7067	D	An effective method for moving patients with spinal injuries onto a spine board is known as the _____.	pack-strap carry	two man extremities carry	fireman's drag	four man log roll	
4	7068	A	Deballasting a double bottom has what affect on KG?	KG is increased.	KG is decreased.	KG is not affected.	KG increases at light drafts and decreases at deep drafts.	
4	7071	B	The sorting of accident victims according to the severity of their injuries is called _____.	evaluation	triage	surveying	prioritizing	
4	7072	C	The SS AMERICAN MARINER has drafts of: FWD 15'-06", AFT 18'-06". Use the white pages of the Stability Data Reference Book to determine the drafts if you ballast the forepeak with 62 tons of seawater.	FWD 15'-11.5", AFT 18'-02.7"	FWD 16'-00.1", AFT 18'-02.1"	FWD 16'-00.7", AFT 18'-01.5"	FWD 16'-01.3", AFT 18'-00.9"	
4	7073	C	Where there are multiple accident victims, which condition should be the first to receive emergency treatment?	Back injuries	Major multiple fractures	Suspension of breathing	Burns	
4	7075	D	Where there are multiple accident victims, which injuries should be the FIRST to receive emergency treatment?	Major multiple fractures	Eye injuries	Back injuries with spinal-cord damage	Airway and breathing difficulties	
4	7077	A	Where there are multiple accident victims, which type of injury should be the first to receive emergency treatment?	Severe shock	Eye injuries	Burns	Major multiple fractures	
4	7081	B	In managing a situation involving multiple injuries, the rescuer must be able to _____.	provide the necessary medication	rapidly evaluate the seriousness of obvious injuries	accurately diagnose the ailment or injury	prescribe treatment for the victim	
4	7083	C	What can be determined about an injury from examining the condition of a victim's pupils?	The degree of pain being suffered	The degree of vision impairment	Whether or not the brain is functioning properly	Whether or not the victim's blood pressure is normal	
4	7093	C	Normal mouth temperature is _____.	96.4°F	97.5°F	98.6°F	99.7°F	
4	7096	C	Convection spreads a fire by _____.	transmitting the heat of a fire through the ship's metal	burning liquids flowing into another space	heated gases flowing through ventilation systems	the transfer of heat across an unobstructed space	

4	7097	A	What is a convenient and effective system of examining the body of an injury victim?	Check the corresponding (left versus right) parts of the body.	Watch the patient's eyes as you probe parts of the body.	Look for discoloration of the patient's skin.	Look for uncontrolled vibration or twitching of parts of the body.	
4	7105	C	Combustible gas indicators measure the presence of combustible gas as a percentage of the _____.	flash point	upper explosive limit	lower explosive limit	fire point	
4	7113	B	Fire extinguishers used on MODU's are numbered by size I through V, with I being _____.	used for electrical fires only	the smallest	the most accessible	the most effective	
4	7121	C	CO2 cylinders equipped with pressure actuated discharge heads will discharge automatically when _____.	the discharge valve is open	the control box glass is broken	pressure from the control cylinders is detected	the control cylinders have been completely discharged	
4	7127	B	Spaces protected by a fixed CO2 system must be equipped with an alarm which sounds _____.	for the first 20 seconds CO2 is being released into the space	for at least 20 seconds prior to release of CO2	during the entire period that CO2 is being released	if all doors and ventilation are not secured	
4	7128	A	Some spaces protected by fixed carbon dioxide systems are required to have audible alarms that begin sounding prior to the discharge of CO2. This time delay must be at least _____.	20 seconds	40 seconds	one minute	two minutes	
4	7129	B	Some spaces protected by fixed carbon dioxide systems are required to have audible alarms that begin sounding prior to the discharge of CO2. This time delay must be at least _____.	15 seconds	20 seconds	45 seconds	90 seconds	
4	7131	C	A safety outlet is provided on the CO2 discharge piping to prevent _____.	over pressurization of the space being flooded	rupture of cylinder due to temperature increase	over pressurization of the CO2 discharge piping	flooding of a space where personnel are present	
4	7135	C	What is the best instrument for establishing a safe working area before welding in a confined space?	An oxygen indicator	A combustible gas indicator	A combination combustible gas and oxygen indicator	A flame safety lamp	
4	7143	C	Actuating the CO2 fixed system causes the shutdown of the _____.	fuel supply	exhaust ventilation	supply and exhaust ventilation	mechanical and natural ventilation	
4	7147	A	What should you do if you have transmitted a distress call a number of times on channel 16 and have received no reply?	Repeat the message using any other channel on which you might attract attention.	Key the microphone several times before transmitting again.	Turn up the volume on the receiver before transmitting again.	Report the problem to the head electrician.	
4	7305	B	If you use obscene, indecent, or profane language over the radiotelephone, you can be _____.	assessed a fine of up to $5,000, imprisonment of up to three years, or both	assessed a fine not to exceed $10,000, imprisonment of not more than two years, or both	assessed a fine not to exceed $20,000	imprisoned up to five years	
4	7307	A	All VHF marine band radios operate in the simplex mode, which means that _____.	only one person may talk at a time	only two persons may talk at the same time	the radio only transmits	the radio only receives	
4	7311	D	What is the calling and distress frequency on a single side band (SSB) marine radiotelephone?	1492 kHz	1892 kHz	2082 kHz	2182 kHz	
4	7313	D	What is the MOST important thing you should do before transmitting on a marine radio?	Ask for permission.	Record the time in your radio log.	Press the "push to talk" button three times.	Monitor the channel to insure that it is clear.	

4	7317	B	When sending and receiving messages on the marine radio, confusion over unusual words can be avoided by using the _____.	delimiter switch	standard phonetic alphabet	low power switch	high power switch	
4	7318	A	A cabinet or space containing the controls or valves for the fixed firefighting system must be _____.	posted with instructions on the operation of the system	ventilated and equipped with explosion-proof switches	painted with red and black diagonal stripes	equipped with a battery powered source of emergency lighting	
4	7321	A	The reception of weak radio signals may be improved by "opening up" the squelch control. What is the normal setting of the squelch control?	Just past the point where background noise is cut off	Completely closed with the volume at the highest level	Completely open with the volume at the lowest level	None of the above	
4	7323	C	Whenever your marine radio is on, FCC Rules require you to monitor _____.	a commercial ship-to-ship channel	the last frequency that was used	the distress and calling frequency	the radio only if expecting a call	
4	7325	C	One method of reducing the length of radio transmissions without distorting the meaning of your words is by using _____.	slang	secret codes	procedure words	analogies	
4	7331	B	Routine radio communications should be no more than _____.	one minute	three minutes	five minutes	eight minutes	
4	7333	B	You have just tried calling another vessel on the VHF and they have not replied. How long should you wait before calling that station again?	One minute	Two minutes	Five minutes	Seven minutes	
4	7335	A	When making VHF radio calls to nearby stations, what level of transmitting power should you use?	Low power	Medium power	High power	Extra high power	
4	7337	C	If you log a distress message, it must include the _____.	sea state	names of witnesses	time of its occurrence	wind direction and velocity	
4	7341	D	If you know that the vessel you are about to call on the VHF radio maintains a radio watch on both the working and the calling frequencies, which frequency should you call on?	Calling frequency	Distress frequency	Urgency frequency	Working frequency	
4	7343	D	What is maximum power allowed by the FCC for VHF-FM radio transmissions?	One watt	Five watts	15 watts	25 watts	
4	7345	A	What is the average range of vessel-to-vessel VHF-FM radio communications?	15 to 20 miles	60 to 90 miles	90 to 120 miles	120 to 150 miles	
4	7351	B	The range of a SSB transmission is MOST affected by _____.	atmospheric noise and radiated power	the frequency band selected and time of day or night	interference and position of the moon	radiated power and nearness to shore	
4	7353	A	The height of a VHF radio antenna is more important than the power output wattage of the radio because _____.	VHF communications are basically "line of sight"	the air is more dense the higher you go	salt water is a poor conductor of sound	sea water absorbs the radiated energy	
4	7355	D	When do you use your FCC call sign when transmitting on channel 16?	Only at the beginning of a transmission	Only in an emergency	Only if asked by the U.S. Coast Guard	Always at the beginning and ending of a transmission	
4	7365	C	What is the minimum required GMT for the DEEP DRILLER in winds less than 70 knots while at a draft of 60 feet?	0.17 foot	2.62 feet	4.34 feet	9.12 feet	
4	7367	D	Among the possible causes of unexpected rapidly increasing inclination of the DEEP DRILLER while on location is _____.	consumption of on board variables	miscalculation of loads	external environmental forces	flooding due to column damage	
4	7371	D	The condition where a MODU on the end of a tow line is riding a wave crest at the same time as its tug rides a wave crest is known as riding in _____.	synchronism	harmony	check	step	

4	7373	C	When a semisubmersible rig under tow experiences pounding on the forward transverse brace, the surest way to alleviate the condition would be to _____.	adjust the length of the tow line	have the tug slow down	ballast down	change course	
4	7375	B	When a semisubmersible rig under tow veers from side to side on its tow line, the best way of controlling the action is to _____.	trim by the bow	trim by the stern	play out stern anchor chain	adjust the length of the towing bridle	
4	7377	A	A semisubmersible rig under tow should be ballasted down if _____.	motion begins to be excessive	water begins to break over the pontoons	period of roll exceeds 12 seconds	forward progress is halted by head wind	
4	7381	D	One way to increase the period of roll on a semisubmersible rig while under tow is to _____.	dump deck tanks into lower hulls	plug ballast tank vents	head into the waves	increase tank free surface	
4	7385	B	To assure safe boarding and launching of a davit-launched liferaft from a MODU, preparation should include _____.	load testing the davit arm and the painter system	removing any side protective rails and checking that the overside and surface level are clear	testing the spring loaded drum to assure it will retract the fall release hook	testing to assure that the required lamps are functioning properly	
4	7387	C	Prior to boarding from a MODU, a davit-launched liferaft should be well ventilated of excess _____.	hydrocarbon gas	carbon monoxide gas	carbon dioxide gas	freon gas	
4	7388	B	All marine low-speed diesels are of what design?	Four-stroke	Two-stroke	Electronic ignition	Forced exhaust	
4	7391	B	Personnel boarding a davit-launched liferaft from a MODU should be checked to assure they are not in possession of or wearing _____.	oil stained shoes or clothing	sharp objects that may puncture or damage the liferaft	matches or cigarette lighters	drugs or paraphernalia not approved by a medical doctor	
4	7393	C	When a davit-launched raft is lowered from a MODU, upon becoming waterborne, the raft is released by _____.	activating the release lock of the hook	pulling smartly on the knobbed cocking lanyard	the effects of buoyancy removing the weight of the raft from the hook	releasing the boarding flap and the bowsing lines	
4	7395	A	In evacuation from a MODU, an individual without the option of a survival craft or liferaft should enter the water on the leeward side, except when _____.	there is burning oil on the water	there is a rescue craft in the area	water temperature is below 40°F	a rigid survival craft is in the area	
4	7397	B	In evacuation from a MODU, an individual without the option of a survival craft or liferaft should enter the water on the leeward side, except when _____.	there is a rescue craft in the area	there is hydrogen sulfide present	water temperature is below 40°F	a rigid survival craft is in the area	
4	7401	C	In evacuation from a MODU, an individual without the option of a survival craft or liferaft should enter the water on the leeward side, except when _____.	there is a rescue craft in the area	water temperature is below 40°F	there is a severe list to the windward side of the MODU	a rigid survival craft is in the area	
4	7403	A	If you must jump from a MODU, your posture should include _____.	holding down the life preserver against the chest with one arm crossing the other, covering the mouth and nose with a hand, and feet together	knees bent and held close to the body with both arms around legs	body straight and arms held tightly at the sides for feet first entry into the water	both hands holding the life preserver below the chin, with knees bent, and legs crossed	
4	7405	B	VHF Channel 6 is used exclusively for what kind of communications?	Radio checks and time checks	Inter-vessel safety and search and rescue	Working with helicopters	Radio direction finding	
4	7407	D	Which VHF channel should you avoid using as a working channel?	7A	8	9	16	

4	7411	C	What is the spoken emergency signal for a distress signal over a VHF radio?	Red Alert	Security	Mayday	Pan	
4	7412	C	In the event of a fire, the doors to a stair tower must be closed to prevent the spread of fire by _____.	ventilation	radiation	convection	conduction	
4	7413	B	Which spoken emergency signal would you use to call a boat to come assist a man overboard?	Distress signal	Urgency signal	Safety signal	None of the above	
4	7415	D	What is the spoken emergency signal for a "man overboard" on the VHF radio?	Man Overboard	Security	Mayday	Pan-Pan	
4	7417	B	You receive a call from the U.S. Coast Guard addressed to all stations. The call begins with the words "Pan-Pan" (3 times). Which type of emergency signal would this be?	Safety signal	Urgency signal	Distress signal	Red alert signal	
4	7421	B	After receiving your distress call, the U.S.C.G. will ask you to switch to which SSB frequency?	2570	2670	2770	2870	
4	7427	A	What is the expected range of a VHF radio transmission from a vessel to a shore station?	About 20 miles	50 - 100 miles	100 - 150 miles	150 - 200 miles	
4	7431	D	What time of day would an SSB radio have the longest transmitting range?	Daylight before noon	At noon	Daylight after noon	During darkness	
4	7575	A	The upward pressure of displaced water is called _____.	buoyancy	deadweight	draft	freeboard	
4	7577	D	The value of the maximum righting arm depends on the position of the center of buoyancy and the _____.	longitudinal center of gravity	transverse center of gravity	downflooding angle	vertical location of the center of gravity	
4	7578	D	When a helicopter is lifting personnel from an enclosed lifeboat, the other individuals in the boat should _____.	enter the water in case the person being lifted slips from the sling	stand on the outside of the boat to assist the person being lifted	remove their life preservers to prepare for their transfer to the helicopter	remain seated inside to provide body weight for stability	
4	7581	A	For a given displacement, the righting arm has its maximum value when _____.	KG is minimum	angle of inclination is a maximum	small-angle stability applies	KM is a minimum	
4	7583	D	Stability is determined by the relationship of the center of gravity and the _____.	water depth	keel	center of flotation	center of buoyancy	
4	7587	D	The geometric center of the underwater volume is known as the _____.	center of flotation	tipping center	center of gravity	center of buoyancy	
4	7591	B	Stability is determined principally by the location of the center of gravity and the _____.	aft perpendicular	center of buoyancy	keel	center of flotation	
4	7593	A	The horizontal distance between the vertical lines of action of gravity and the buoyant forces is called the _____.	righting arm	metacentric height	metacentric radius	height of the center of buoyancy	
4	7595	A	For a vessel inclined by the wind, multiplying the buoyant force by the horizontal distance between the lines of action of the buoyant and gravity forces gives the _____.	righting moment	vertical moment	longitudinal moment	transverse moment	
4	7597	C	In small angle stability theory, the metacenter is located at the intersection of the inclined vertical centerline and a vertical line through _____.	G	F	B	K	
4	7601	C	At all angles of inclination, the true measure of a vessel's stability is the _____.	metacentric height	displacement	righting moment	inclining moment	
4	7603	A	Initial stability refers to stability _____.	at small angles of inclination	when loaded with minimum deck load	when at transit draft	when GZ is zero	
4	7605	C	For small angles of inclination, if the KG were equal to the KM, then the vessel would have _____.	positive stability	negative stability	neutral stability	maximum stability	

4	7607	D	The difference between the height of the metacenter and the metacentric height is known as _____.	righting arm	metacentric radius	height of the center of buoyancy	height of the center of gravity	
4	7613	A	GM cannot be used as an indicator of stability at all angles of inclination because _____.	M is not fixed at large angles	there is no M at large angles	G is not fixed at large angles	there is no G at large angles	
4	7617	B	When a MODU is inclined at a small angle, the center of buoyancy will _____.	remain stationary	move toward the low side	move toward the high side	move to the height of the metacenter	
4	7621	A	Which statement is TRUE about metacentric height?	It is a measure of initial stability.	It is located above the center of buoyancy.	It is measured vertically above the center of buoyancy.	It's determination is the objective of the inclining experiment.	
4	7623	B	The weight of the liquid displaced by a vessel floating in sea water is equal to the _____.	weight required to sink the vessel	total weight of the vessel	displaced volume	reserve buoyancy	
4	7625	A	The original equilibrium position is always unstable when _____.	metacentric height is negative	KM is higher than KG	KG exceeds maximum allowable limits	free surfaces are excessive	
4	7631	D	At an angle of loll, the capsizing moment is _____.	maximum	negative	positive	zero	
4	7635	D	At an angle of loll, the righting arm (GZ) is _____.	maximum	negative	positive, but reflexive	zero	
4	7637	D	When a floating MODU inclines to an angle slightly less than the angle of loll, she will _____.	capsize	incline less	flop to the other side	return to the angle of loll	
4	7641	C	In small-angle stability, when external forces exist, the buoyant force is assumed to act vertically upwards through the center of buoyancy and through the _____.	center of gravity	center of flotation	metacenter	metacentric height	
4	7643	C	When a vessel is floating upright, the distance from the keel to the metacenter is called the _____.	metacentric radius	height of the baseline	height of the metacenter	righting arm	
4	7645	B	What abbreviation represents the height of the center of buoyancy?	BK	KB	CB	BM	
4	7647	D	The abbreviation GM is used to represent the _____.	height of the metacenter	righting arm	righting moment	metacentric height	
4	7648	B	Buoyant apparatus are required to be fitted or equipped with all of the following equipment EXCEPT _____. (small passenger vessel regulations)	life lines	paddles	water lights	painters	
4	7651	C	When positive stability exists, GZ represents the _____.	righting moment	center of gravity	righting arm	metacentric height	
4	7655	D	In small angle stability, the metacentric height _____.	is found in the hydrostatic tables for a level vessel	multiplied by the displacement yields the righting moment	is always positive	is calculated by subtracting KG from KM	
4	7657	C	The righting moment can be determined by multiplying the displacement by the _____.	vertical center of gravity (KG)	longitudinal center of gravity (LCG)	righting arm (GZ)	center of gravity (CG)	
4	7663	B	Subtracting KG from KM yields _____.	BM	GM	GZ	KG	
4	7665	B	Subtracting KG from KM yields _____.	BL	GM	FS	KG	
4	7667	D	Subtracting GM from KM yields _____.	BL	GM	FS	KG	
4	7675	B	To calculate the free surface correction, it is necessary to divide the free-surface moments by the _____.	total weight of liquid loads	total displacement	lightweight	deadweight	
4	7677	B	Reducing free surfaces has the effect of lowering the _____.	uncorrected KG	virtual height of the center of gravity	metacenter	metacentric height	
4	7681	B	The effects of free surface on initial stability depend upon the dimensions of the surface of the free liquids and the _____.	volume of liquid in the tank	volume of displacement of the MODU	location of the tank in the MODU	height of the center of gravity of the MODU	

4	7682	B	One major disadvantage of a low-speed diesel as compared to a steam main-propulsion system is _____.	the extra weight required for the diesel reduction gearing	a minimum speed for the engines that limits the minimum speed of the vessel	the higher fuel consumption per SHP	the low efficiency of the system when a controllable pitch propeller is used	
4	7683	B	Increasing free surfaces has the effect of raising the _____.	uncorrected KG	virtual height of the center of gravity	metacenter	metacentric height	
4	7685	B	The free surface corrections depend upon the dimensions of the surface of the free liquids and the _____.	volume of liquid in the tank	displacement of the MODU	location of the tank in the MODU	height of the center of gravity of the MODU	
4	7687	D	When displacement increases, the free surface moments of slack tanks _____.	increase	decrease	are inversely proportional	remain unchanged	
4	7693	C	Increasing the number of slack liquid tanks has the effect of raising the _____.	uncorrected KG	maximum allowed KG	virtual height of the center of gravity	metacentric height	
4	7695	D	Adding the FSCL to KG yields _____.	KM	GM	KGT	KGL	
4	7697	C	The distance between the bottom of the hull and the waterline is called _____.	tonnage	reserve buoyancy	draft	freeboard	
4	7701	D	After transferring a weight forward on a vessel, the draft at the center of flotation will _____.	change, depending on the location of the LCG	increase	decrease	remain constant	
4	7703	A	The average of the forward and after drafts is the _____.	mean draft	true mean draft	mean of the calculated drafts	draft at the center of flotation	
4	7713	D	Your vessel is listing because of a negative GM. To lower G below M, you should _____.	deballast	transfer weight to the high side	ballast on the high side	add weight symmetrically below G	
4	7725	B	Reserve buoyancy is the _____.	unoccupied space below the waterline	volume of intact space above the waterline	excess of the buoyant force over the gravity force	difference in the buoyant force in salt and fresh waters	
4	7727	A	When flooding occurs in a damaged vessel, reserve buoyancy _____.	decreases	remains the same	increases	shifts to the low side	
4	7737	D	The geometric center of the waterplane area is called the _____.	center of buoyancy	center of gravity	metacenter	center of flotation	
4	7747	D	In the absence of external forces, the center of gravity of a floating vessel is located directly above the _____.	metacenter	amidships	center of flotation	geometric center of the displaced volume	
4	7785	A	The result of multiplying a weight by a distance is a _____.	moment	force	couple	center of gravity location	
4	7786	B	The straight stream capability of an all-purpose nozzle is used in fighting a class A fire to _____.	shield fire fighters from radiant heat	break up burning material	get the most water possible on the fire	drive heat and smoke ahead of the fire fighters	
4	7787	B	A moment is obtained by multiplying a force by its _____.	couple	lever arm	moment of inertia	point of application	
4	7805	B	A tank with internal dimensions of 40 feet X 20 feet X 12 feet is pressed with fuel oil weighing 54 pounds per cubic foot. What is the weight, in short tons, of the liquid?	518.4 short tons	259.2 short tons	135.0 short tons	11.3 short tons	
4	7841	C	In a combination chain and wire rope mooring system, the anchor chain is deployed at the anchor end of the line to _____.	increase fatigue life of the system	reduce the time to retrieve the line	increase the holding power	reduce the catenary	
4	7843	C	After putting on a self-contained breathing apparatus, you open the air supply and hear a continuous ringing of a bell. What does this mean?	The unit is working properly.	The face mask is not sealed properly.	The air bottle needs to be refilled.	The air supply hose has a leak.	
4	7845	A	When the bypass valve of a self-contained breathing device is opened, the air flows _____.	directly to the facepiece	directly to the air supply bottle	through the regulator	from the bottle into the atmosphere	

4	7847	B	When the mainline valve of a self-contained breathing apparatus is open, the bypass valve should be _____.	completely open	completely closed	disconnected	partially opened	
4	7951	D	What is the chief advantage of an SCR or AC-DC system over a straight DC system for powering drilling rig machinery?	Commutators are eliminated.	Several machines can be operated from a DC bus.	SCR systems are simpler.	Required power can be drawn from a common AC bus.	
4	8015	B	In case of damage to the DEEP DRILLER on location, the immediate objective is to reduce the unexpected inclination and return the unit to _____.	nearest sheltered port	near its original draft	drilling	survival draft	
4	8035	A	When the wave period and the apparent rolling period of the MODU are the same _____.	synchronous rolling occurs	roll period decreases	roll period increases	roll amplitude is dampened	
4	8036	C	Radiation spreads a fire by _____.	transmitting the heat of a fire through the ship's metal	burning liquids flowing into another space	transferring heat across an unobstructed space	heated gases flowing through ventilation systems	
4	8045	D	At an angle of loll, the righting moment is _____.	maximum	negative	positive	zero	
4	8047	D	An "on-load" release system on a survival craft means the cable can be released _____.	only when the load is taken off the cable	only when there is a load on the cable	only when activated by the controls at the lowering station	at any time	
4	8051	A	The "off-load" release system on a survival craft is designed to be activated _____.	when there is no load on the cable	when there is a load on the cable	only when the doors are closed	when the engine is started	
4	8053	C	At a speed of 6 knots the fuel aboard a survival craft should last _____.	8 hours	12 hours	24 hours	48 hours	
4	8054	B	A thrust block is designed to _____.	transmit the thrust of the engine to the propeller	transmit the thrust of the propeller to the vessel	absorb the shock of wave pressure at the bow	be placed between the engines and the foundation to absorb the vibration	
4	8055	C	When inspecting a survival craft, you should check to make sure that the _____.	sea anchor is deployed	hydraulic starting system has been drained	hydraulic pressure is within the specified range	steering controls are locked	
4	8061	C	When drilling from a MODU the weight in air of tubular goods on the racks is reduced when run into the drilled hole because of the effect of _____.	drill string compensators	formation pressure	buoyancy of the mud	vessel motion	
4	8063	C	Cartridge-operated dry chemical extinguishers used on MODU's should have the propellant cartridge weighed every _____.	3 months	6 months	12 months	2 years	
4	8071	A	It is proposed to moor the DEEP DRILLER in 600 feet of water in a region in which the effective wind velocity could reach 80 knots, significant wave height could reach 30 feet, and the current could be 1.5 knots. If these conditions occurred at the same time from the beam, the total environmental force would be _____.	620 kips	595 kips	475 kips	425 kips	
4	8073	C	A person who holds a foreign license can serve as the ballast control operator to meet manning requirements on a MODU on waters outside U.S. jurisdiction until the _____.	MODU's contract is completed	Certificate of Inspection is renewed	MODU returns to a U.S. port	Operations Manual is revised	
4	8075	D	A semisubmersible is more likely to experience structural stresses during heavy weather when _____.	operating at drilling draft	deballasting to survival draft	when at survival draft	when at transit draft	
4	8077	C	Progressive flooding on a MODU is controlled by securing watertight boundaries and _____.	transferring drill water	dumping bulk materials	pumping out flooded compartments	evacuating the unit	

4	8081	C	What additional precautions should be taken when making temporary repairs to a MODU that is operating when hydrogen sulfide is present?	Seal off all tank and compartment ventilation.	Remove all bulk materials from the P-tanks.	Provide respiratory protection and monitoring.	All of the above	
4	8091	C	When preparing a MODU for heavy weather, fuel oil day tanks should be _____.	pumped overboard to calm the seas	drained to the lower hull to reduce free surfaces	filled to ensure that sufficient fuel oil is available during a lengthy emergency	partially drained to increase free surfaces in order to reduce motions	
4	8093	A	What is the displacement of the DEEP DRILLER with a draft of 19.5 feet in fresh water?	11,932.8 long tons	12,232.8 long tons	12,602.9 long tons	18,919.8 long tons	
4	8103	A	The COASTAL DRILLER, elevated in 200 feet of water, has two knots of current and 70 knot winds. With a maximum leg reaction of 5,840 kips, the maximum wave height for drilling is _____.	20 feet	30 feet	35 feet	40 feet	
4	8105	A	What is the port leg reaction for the COASTAL DRILLER if the total weight is 15,000 kips, LCG is 120 feet, and TCG is 1.0?	4,909 kips	4,931 kips	4,950 kips	5,160 kips	
4	8107	B	What is the minimum required GML for the DEEP DRILLER in winds less than 70 knots while at a draft of 60 feet?	0.17 foot	2.63 feet	4.34 feet	9.12 feet	
4	8115	D	When two ballast pumps used for deballasting a single tank start cavitating, you should _____.	open all valves on the discharge side to permit improved flow	close the valve on the discharge side of the pump to re-acquire suction	close the valve on the suction side of the ballast pump to re-prime the pump	shut down one pump	
4	8117	C	While in transit, the DEEP DRILLER suffers flooding in the port pump room. Both port bilge pumps are inadequate to dewater the pump room. You may supplement the bilge pumps by using the _____.	starboard ballast pump	port saltwater service pump	port drill water pump	starboard ballast pump and crossover system	
4	8118	C	Most medium and slow speed diesels are started by what medium?	Electric starting motors	Hydraulics	Compressed air	Ether	
4	8121	D	While at operating draft, the DEEP DRILLER suffers flooding in the port pump room. Both port bilge pumps are inadequate to dewater the pump room. You may supplement the bilge pumps with the _____.	starboard ballast pump and crossover system	port ballast pump	port saltwater service pump	port drill water pump	
4	8123	D	To effectively use the crossover system on the DEEP DRILLER to pump from the low side using a high side ballast pump, transverse inclinations should not exceed _____.	8°	6°	4°	2°	
4	8125	B	While in transit, the DEEP DRILLER suffers flooding in the starboard pump room. Both starboard bilge pumps are inadequate to dewater the pump room. You may supplement the performance of the bilge pumps by using the _____.	starboard saltwater service pump	starboard drill water pump	starboard ballast pump	port ballast pump and crossover system	
4	8127	C	The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the contents of #6 and #7 drill water tanks are discharged, what would be the new height of the transverse metacenter?	134.95 feet	135.91 feet	136.38 feet	136.89 feet	

4	8131	B	The COASTAL DRILLER is loaded as shown in Sample Load Form #3 (Drilling). What would be the new sum of longitudinal moments for the liquid variables if the entire contents of drill water tank #17 are transferred to drill water tank #18?	181,648 ft-kips	181,718 ft-kips	187,345 ft-kips	195,462 ft-kips	
4	8147	A	The DEEP DRILLER has a KGL of 53.16 feet while at a draft of 58.0 feet. Although there are no environmental forces, trim is 2.0 feet by the stern. What is the value of LCG?	2.16 feet	2.26 feet	2.36 feet	2.46 feet	
4	8151	A	Laying down drill pipe from the derrick of a semisubmersible on location reduces the _____.	natural roll period	metacentric height	waterplane area	righting moment	
4	8153	D	The DEEP DRILLER, at a draft of 60 feet and a total vertical moment of 1,012,598 foot-tons, pumps 2,068.7 long tons of ballast overboard. The VCG of the discharged ballast is 15.0 feet. What is the new height of the center of gravity?	50.62 feet	55.89 feet	60.56 feet	61.16 feet	
4	8156	C	Category 1 EPIRBs are required to be carried on board _____.	small passenger vessels on the Great Lakes	all deep draft vessels	fishing industry vessels	small passenger vessels	
4	8157	D	A moment of 300 ft-tons is created by a force of 15,000 tons. What is the moment arm?	50.00 feet	25.00 feet	0.04 foot	0.02 foot	
4	8161	B	A semisubmersible, displacing 20,500 long tons, has vertical moments of 1,060,000 foot-long tons. What is the change in KG if 500 long tons are discharged from a VCG of 120 feet?	1.22 feet downward	1.71 feet downward	1.75 feet downward	2.93 feet downward	
4	8163	D	The ship's drawings for use when the DEEP DRILLER is damaged are available in the _____.	wheelhouse under glass	toolpusher's quarters	OIM's office	ballast control room	
4	8165	A	The DEEP DRILLER, loaded as shown in Sample Load Form #2 (Ballast to Survival), suffers major damage which results in flooding in tank 1S. Your best countermeasure is to _____.	pump from 2S	pump from C1S	pump from 1S	counterflood in 10P	
4	8167	C	The DEEP DRILLER, loaded as shown in Sample Load Form #2 (Ballast to Survival), suffers major damage which results in flooding in tank 10S. Your best countermeasure is to _____.	pump from 10S	pump from C3S	pump from 9S	counterflood in 1P	
4	8171	A	The DEEP DRILLER, loaded as shown in Sample Load Form #2 (Ballast to Survival), suffers major damage which results in flooding in tank C3S. Pumping from tanks in the vicinity of the damage have proven ineffective. Your best countermeasure is to _____.	counterflood in 1P	counterflood in 10S	pump from C1P	pump from C3S	
4	8173	A	When elevating the COASTAL DRILLER in 100 feet of water, the unit should be placed at an air gap of _____.	35 feet	32 feet	30 feet	25 feet	
4	8175	B	When elevating the COASTAL DRILLER in 150 feet of water, the unit should be placed at an air gap of _____.	35 feet	32 feet	30 feet	25 feet	
4	8177	C	When elevating the COASTAL DRILLER in 200 feet of water, the unit should be placed at an air gap of _____.	35 feet	32 feet	30 feet	25 feet	

4	8181	B	When the COASTAL DRILLER is afloat, the water for the saltwater eductor system is provided by _____.	raw water tower pumps	fire pumps	bilge pumps	mud pumps	
4	8183	D	When extracting the legs from the soil, the hull of the COASTAL DRILLER may be pulled down until the draft is _____.	at the maximum load line draft	one foot less than maximum load line draft	one foot deeper than maximum load line draft	one foot deeper than calculated afloat draft	
4	8184	A	What is an advantage of diesel over steam turbine propulsion?	Less fuel consumption per SHP	Diesel fuel costs less than bunker C or its equivalent	Less routine maintenance required	Less weight per SHP	
4	8185	A	When the COASTAL DRILLER is elevated, the water for the saltwater eductor system is provided by _____.	raw water tower pumps	fire pumps	bilge pumps	mud pumps	
4	8186	D	Your drafts are: FWD 16'-02", AFT 20'-08". Use the blue pages of the Stability Data Reference Book to determine the MT1.	920 foot-tons	935 foot-tons	960 foot-tons	980 foot-tons	
4	8187	A	The maximum variable load for the COASTAL DRILLER while elevated in a severe storm is _____.	2,381 kips	3,381 kips	7,099 kips	21,297 kips	
4	8191	C	During a severe storm while the COASTAL DRILLER is elevated, on board loads must be shifted so that the TCG is on the centerline and the LCG is _____.	40.00 feet AF0	68.33 feet AF0	119.44 feet AF0	160.33 feet AF0	
4	8193	D	In a severe storm while elevated, the drilling loads on the COASTAL DRILLER must be considered as _____.	hook loads	setback loads	rotary loads	variable loads	
4	8195	D	The COASTAL DRILLER, while in transit, expects the winds to increase to 75 knots. In order to meet the stability and leg strength requirements, the tip-of-can (TOC) position should be at _____.	0.00 feet (flush with bottom of hull)	1.20 feet	12.38 feet	60.50 feet	
4	8197	C	If a severe storm threatens the COASTAL DRILLER while elevated as shown in the Sample Load Form #3 (Drilling), the variable loads would have to be reduced by _____.	3,282.5 kips	2,381.0 kips	1,000.0 kips	901.5 kips	
4	8198	C	On a vessel of 6500 tons displacement, a tank 30 ft. long, 32 ft. wide and 15 ft. deep is half filled with oil cargo (S.G. 0.948) while the vessel is floating in saltwater (S.G. 1.026). What is the free surface constant for this tank?	3240	2731	2162	1336	
4	8201	D	While on an ocean tow, the COASTAL DRILLER is threatened with the approach of a severe storm. Including the time required to place the generators on-line, the approximate time required to lower the legs from a TOC (tip-of-can) position of 12.38 feet to 60.5 feet is _____.	8 minutes	32 minutes	40 minutes	47 minutes	
4	8203	D	While on a normal tow, the COASTAL DRILLER is threatened with the approach of a severe storm. Including the time required to place the generators on-line, the approximate time required to lower the legs from a TOC (tip-of-can) position of 1.20 feet to 60.50 feet is _____.	8 minutes	32 minutes	47 minutes	55 minutes	
4	8205	B	While on an ocean tow, the COASTAL DRILLER is threatened with the approach of a severe storm. The legs should be lowered so that the TOC (tip-of-can) is lowered from 12.38 feet to _____.	48.12 feet	60.50 feet	68.50 feet	78.50 feet	

4	8207	D	While on a normal tow, the COASTAL DRILLER is threatened with the approach of a severe storm. The legs should be lowered so that the TOC (tip-of-can) is lowered from 1.20 feet to _____.	2.20 feet	12.38 feet	48.12 feet	60.50 feet	
4	8211	B	When preloading the COASTAL DRILLER, the minimum total weight shall not be less than _____.	21,497 kips	21,297 kips	17,700 kips	14,400 kips	
4	8213	B	What fitting should you install in the rig piping to a pump to facilitate disconnecting the pump for servicing?	Coupling	Union	Flange	Nipple	
4	8215	C	In the piping systems of a MODU, what type of valve gives the least resistance to fluid flow when fully open?	Globe valve	Butterfly valve	Gate valve	Packless valve	
4	8217	B	What is the purpose of a striker plate?	Provides surface for applying force on machinery	Provides landing surface for the sounding bob	Absorbs machinery vibration	Prevents valve stem over-travel	
4	8221	D	What is the purpose of a vent header?	Prevents entry of water into vent systems	Prevents passage of flame into fuel tanks	Catches overflow	Combines individual vent lines into a main	
4	8222	B	Which will improve stability?	Closing watertight doors	Pumping the bilges	Loading cargo on deck	Consuming fuel from a full tank	
4	8223	C	What is the purpose of a check valve?	Passes air but not liquid	Regulates liquid flow	Permits flow in one direction only	Passes liquid but not air	
4	8225	A	On what type of pump would you find an impeller?	Centrifugal	Gear	Piston	Vane	
4	8235	C	What is the proper direction of flow through a globe valve when the valve is installed to be in a normally open position?	Direction is unimportant	Depends on seat configuration	From below the seat	From above the seat	
4	8257	C	When taking soundings on a floating MODU, the tape should be lowered and brought back quickly to _____.	reduce the time the sounding tube is open	avoid creating a spark	lessen the effect of roll or pitch on the reading	lessen the effect of heave on the reading	
4	8261	A	When taking soundings on a MODU, coating the tape with chalk helps to _____.	better identify the correct reading	show the depth of any water in an oil tank	make the tape roll easier	reduce possibility of sparks	
4	8263	B	When removing the cap from a sounding tube on a MODU, the sound of air escaping indicates the tank _____.	is full	may be partially flooded	level has dropped	is completely flooded	
4	8275	B	In a wire rope mooring system, the fairlead sheave should be a minimum of _____.	10-18 times the diameter of the wire rope	18-36 times the diameter of the wire rope	36-50 times the diameter of the wire rope	50-75 times the diameter of the wire rope	
4	8277	D	An effective braking system for windlasses on rigs in deep water is a(n) _____.	larger chain stopper	disc backstopping brake	hydraulic clutch	electrical regenerative braking system	
4	8281	B	In storm conditions, when the DEEP DRILLER is in 600 feet water depth, and the high-line tension (HLT) is 350 kips, completely slacking the two leeward mooring line tensions reduces the HLT to _____.	375 kips	275 kips	245 kips	220 kips	
4	8283	A	When the alarm bell sounds on a positive-pressure, self-contained breathing apparatus, how long will reserve air supply last?	About 4-5 minutes	About 8-10 minutes	About 12-15 minutes	About 18-20 minutes	
4	8285	C	The bypass valve on a self-contained breathing device should be opened if _____.	you are entering a space containing poisonous vapors	you are entering a space containing explosive gases	the regulator of the breathing apparatus malfunctions	the facepiece of the breathing device is too tight	
4	8287	A	Automatic mechanical ventilation shutdown is required for CO2 systems protecting the _____.	machinery spaces	cargo compartments	living quarters	galley	

4	8288	D	What is NOT used as a stern tube bearing, on a large vessel?	Wooden (lignum vitae) strips	Hard rubber	Resin bonded composition	Bronze bushings	
4	8293	D	Failure of both port-side ballast pumps on the DEEP DRILLER prevents their use. To dewater from the port forward tanks, you should use the _____.	port saltwater service pump	port drill water pump	port bilge pumps	starboard ballast pump and crossover system	
4	8295	A	The DEEP DRILLER suffers minor flooding of the port pump room. If both port bilge pumps fail to dewater the pump room, you should use the _____.	port drill water pump	port saltwater service pump	port ballast pumps	starboard ballast pumps and crossover system	
4	8297	A	The DEEP DRILLER suffers minor flooding of the starboard pump room. If both starboard bilge pumps fail to dewater the pump room, you should use the _____.	starboard drill water pump	starboard saltwater service pump	starboard ballast pumps	port ballast pumps and crossover system	
4	8303	C	On a MODU, if there is a probability of encountering H2S during the drilling of a well, air movers (bug blowers) should be installed to dilute concentration of H2S at the _____.	pipe rack	crown block	shale shaker	All of the above	
4	8305	B	Since accumulations of H2S gas on a MODU can be dangerous to personnel, it is important to know that H2S gas is _____.	lighter than air	heavier than air	a yellow gas that is easily recognized	mildly toxic	
4	8307	C	The sense of smell cannot be depended upon to detect H2S because _____.	it has a smell similar to petroleum products	hydrogen sulfide gas is odorless	the sense of smell is deadened by the gas	it is better to rely on eye irritation as a detector	
4	8311	B	High concentrations of H2S gas are most dangerous to personnel because they can _____.	cause involuntary muscle contractions	paralyze your breathing system	cause eye inflammation	cause dizziness	
4	8313	C	The worst atmospheric condition for dispersion of H2S is _____.	heavy rain	gusty winds with rain	nearly calm, clear nights or early morning	full sun with high winds	
4	8315	C	The airborne concentrations of substances (such as H2S) under which nearly all workers may be repeatedly exposed without adverse effects are called _____.	exposure limits	concentration limits	threshold limit values	substance limit values	
4	8317	D	The minimum concentration of H2S which can cause death if a person is exposed for even an instant is _____.	200 ppm	400 ppm	600 ppm	1000 ppm	
4	8321	B	The maximum concentration of H2S to which workers may be regularly exposed without adverse effects is _____.	10 ppm	20 ppm	40 ppm	80 ppm	
4	8323	D	The Lethal Concentration of H2S that will cause death with short-term exposure is a minimum of _____.	100 ppm	200 ppm	400 ppm	700 ppm	
4	8325	A	If H2S exposure is anticipated, fixed monitoring devices aboard a MODU should have a low level concentration alarm to alert personnel when H2S concentrations first reach a maximum of _____.	10 PPM	20 PPM	30 PPM	40 PPM	
4	8327	B	When H2S has been encountered on a MODU, or is anticipated, monitoring devices must sound an alarm (which differs from the lower concentration alarm) or otherwise warn employees when concentration of H2S reaches or exceeds how many parts per million?	20	50	100	200	
4	8331	C	When H2S is burned (flared) on a MODU, what can you expect to occur?	All of the H2S will be converted to SO2.	All of the H2S will be converted to hydrogen and free sulfur.	Only 80% of the H2S will be converted to SO2 or free sulfur.	The H2S not converted will not be dangerous.	

4	8332	A	What type of stern tube bearing has the least friction?	Oil-lubricated bearings	Lignum vitae	Hard rubber	Bronze bushings	
4	8333	B	Individuals who have consumed alcohol within 24 hours of exposure to H2S can tolerate _____.	unusually large concentrations of H2S	smaller than normal concentrations of H2S	moderate concentrations of H2S without the usual reactions	longer exposure to H2S concentrations	
4	8335	C	Requirements for H2S preparation and equipment usage aboard MODU's in U.S. offshore waters are administered by the _____.	U.S. Coast Guard	U.S. Corps of Engineers	Minerals Management Service	American National Standards Institute	
4	8337	D	What is the percentage of oxygen in a typical sample of uncontaminated air?	12 percent	15 percent	18 percent	21 percent	
4	8341	C	Clean air standards referred to as "Grade D" apply to compressed air for use in _____.	high pressure fluid accumulators	driving air-powered plunger pumps	filling open-circuit breathing systems	bladder-type accumulators	
4	8342	B	Blocking open or removing fire dampers can cause _____.	the accumulation of explosive gases	the fire to spread through the ventilation system	faster cooling of the fire	fixed foam systems to be ineffective	
4	8343	B	The probability of sulfide stress cracking in the presence of hydrogen sulfide is greatest for _____.	low strength steel	high strength steel	rubber sealing elements	aluminum	
4	8345	D	For H2S detection, sensitized tapes indicate H2S presence by means of discoloration of an exposed spot on the tape. The shade of the color on the spot depends upon the concentration of H2S and _____.	air temperature at the time of the exposure	air pressure at the time of the exposure	humidity at the time of exposure	duration of the exposure	
4	8347	B	All diesel engines are classified as _____.	four cycle	compression ignition	vacuum ignition	external combustion	
4	8351	D	What is a pinion in a jacking system?	Flexible coupling	Flexible shaft	Flexible joint	Gearwheel	
4	8353	C	What power source actuates a solenoid valve?	Air pressure	Hydraulic pressure	Electric current	Mechanical force	
4	8355	A	What quality of a diesel fuel is most significant for efficient combustion?	Volatility	Viscosity	Flash point	Specific heat	
4	8357	A	What is the principle behind dynamic braking as used on an anchor windlass?	Electrical loading	Mechanical distribution	Compressibility of air	Mechanical friction	
4	8361	D	What is the effect of heated intake air on a diesel engine?	Increases efficiency	Increases engine horsepower	Increases engine life	Reduces engine horsepower	
4	8363	C	Lubricating oil should be changed on a heavy duty diesel engine when _____.	it gets dark in color	a sample rubbed between fingers feels thin	it has been in use for a specified interval	it no longer supports combustion	
4	8365	B	How should you warm up a diesel engine that has not been run for some time?	Run it at minimum speed for a period of time.	Run it at half speed for a period of time.	Bring it to top speed immediately.	Inject ether into the air intake.	
4	8367	D	How would the exhaust of a properly operating diesel engine appear?	Light blue haze	Light brown haze	Light gray haze	Perfectly clear	
4	8371	A	Each cylinder in a two stroke cycle engine experiences combustion _____.	once each crankshaft revolution	twice each crankshaft revolution	every other crankshaft revolution	every fourth stroke	
4	8373	B	How does combustion air enter the cylinder of a two-cycle diesel engine?	Cylinder head valves	Ports	Turbo chargers	Bleeder valves	
4	8375	D	Maintaining good working order of fuel pumps and injectors in auxiliary diesel engines requires the use of _____.	fuel/water separators	day tanks	an injector test stand	fuel filters	
4	8377	C	What factor is essential to the proper operation of a radiator cooled engine?	Cooling water pressure	Jacket water treatment	Air flow through the radiator	Low heat of combustion	
4	8381	B	What are the three basic types of engine starters?	Air, water, electric	Air, hydraulic, electric	Metered, hydraulic, automatic	Air, emergency, hydraulic	

4	8383	C	What does a pyrometer measure on a diesel engine?	Water temperature	Water pressure	Exhaust temperature	Air box pressure	
4	8385	C	What condition will result in the automatic shutdown of a diesel engine?	High jacket water pressure	High lube oil pressure	Low lube oil pressure	Excessive turbo charger speed	
4	8387	B	On a MODU, the possibility of a blowout makes which type of diesel engine shutdown desirable?	Overspeed trip	Air inlet shut-off valve	Water injector	Fuel cutoff valve	
4	8391	D	What monitoring device best indicates the load being carried by a diesel engine?	Lube oil pressure gauge	Jacket water temperature gauge	Tachometer	Exhaust pyrometer	
4	8392	C	You are preparing for what promises to be a rough ocean passage. Your 120-foot schooner carries a yard on the foremast about 50 feet above the water. The yard weighs about 1000 pounds. If you take the yard down and stow it on deck for the trip, you will _____.	decrease the GM	give the vessel a gentler roll	increase the metacentric height	decrease the reserve buoyancy	
4	8393	C	Diesel engines obtain combustion air through turbo chargers, blowers, or _____.	air starters	carburetors	natural aspiration	air receivers	
4	8395	A	What is the purpose of the intake/exhaust valves in a diesel engine?	They regulate the combustion cycle.	They supply cooling water.	They synchronize the ignition spark.	They supply and regulate the lubricant flow.	
4	8397	C	What is the best indication of the loading of a diesel engine?	Oil temperature	Manifold pressure	Exhaust gas temperature	Fuel consumption	
4	8403	C	What is the most probable cause of reduced capacity in a reciprocating air compressor?	Carbon on cylinder heads	Faulty unloader	Leaking air valves	Plugged air cooler	
4	8405	A	The most serious effect of oxygen retained in a diesel engine jacket water cooling system is that it _____.	causes corrosion	reduces the effectiveness of the coolant	can form air pockets which exclude coolant contact with hot surfaces	accelerates formation of hydrogen peroxide deposits	
4	8407	A	If you are unable to stop a diesel engine by any other means, you should _____.	discharge a CO2 extinguisher in the air inlet	pull off the distributor cap	secure the jacket water	secure the starting air supply valve	
4	8411	A	What is one effect of running a diesel engine at too cool a temperature?	Buildup of sludge in the lubricating system	Excessive fuel consumption	Severe heat stresses on mechanical parts	Foaming of the lubricating oil	
4	8412	D	When abandoning ship and jumping into the water from a substantial height, you should _____.	dive head first using your hands to break the surface of the water	hold your arms firmly at your sides and jump feet first	throw your life jacket into the water first and then jump feet first into the water next to it	jump feet first, holding onto your life jacket with one hand while covering your nose and mouth with the other	
4	8413	A	What would white exhaust smoke from a diesel engine probably mean?	Late fuel injection	Excess combustion air	Dribbling injector tips	Excessive lube oil consumption	
4	8415	C	The three conditions which cause engine shutdown are overspeed, low lube oil pressure, and _____.	high lube oil pressure	high jacket water pressure	high jacket water temperature	low jacket water pressure	
4	8417	D	Sudden unloading of a diesel engine can cause _____.	decreased fuel efficiency	increased exhaust temperature	black smoke	overspeed trip	
4	8421	B	If an engine shuts down due to high jacket water temperature, what action should be taken?	Open crankcase explosion covers	Allow engine to cool gradually	Slowly add cool water to the expansion tank	Back flush the cooling water system	
4	8431	B	The International Oil Pollution Prevention (IOPP) Certificate required by MARPOL is issued to U.S. flag MODUs by the _____.	International Maritime Organization	U.S. Coast Guard	American Bureau of Shipping	Environmental Protection Agency	
4	8433	D	The International Oil Pollution Prevention Certificate on a MODU is valid for a period of _____.	one year from the date of issue	two years from the date of issue	three years from the date of issue	four years from the date of issue	

4	8435	A	A MODU which is required to carry an Oil Record Book must log in the book _____.	discharge of ballast or cleaning water from fuel tanks	sounding levels of all fuel tanks on a daily basis	the grade and specific gravity of all fuel oil carried	fuel consumption rates on a weekly basis	
4	8437	C	A MODU required to carry an Oil Record Book must maintain the book on board for _____.	one year	two years	three years	four years	
4	8440	A	Addition of weight above the center of gravity of a vessel will ALWAYS _____.	reduce initial stability	increase righting moments	increase GM	All of the above	
4	8441	D	The regulations regarding Oil Record Books do not apply to MODU's that _____.	are on an international voyage	are on a voyage of more than 24 hours	have a valid International Oil Pollution Prevention Certificate	have a valid National Pollutant Discharge Elimination System permit	
4	8443	A	The requirement to carry an Oil Record Book does not apply to a MODU that _____.	is not equipped to discharge overboard any oil or oily mixture	is on an international voyage to a country that is a party to MARPOL	has an International Oil Pollution Prevention Certificate	has an oily water separator of sufficient capacity for the oil wastes generated	
4	8445	C	Under the regulations implementing MARPOL, a mobile offshore drilling unit is required to have an International Oil Pollution Prevention (IOPP) Certificate when the unit _____.	is drilling on the Outer Continental Shelf	moves to a new drilling location in U.S. waters	engages in a voyage to a port of another country which is a party of MARPOL	All of the above	
4	8447	B	Where is thicker plating usually found in the construction of integral tanks on a MODU?	On the outside of the tank	At the bottom of the tank	At the top of the tank	At the center of the tank	
4	8477	C	You are on a semisubmersible being towed and are concerned that a fishing vessel is not taking sufficient action to avoid you. To signal your concern, you should _____.	fire a red flare at 15 second intervals	fire a green flare at 15 second intervals	sound five or more short blasts on the whistle	broadcast a Mayday message on the radiotelephone	
4	8481	C	A jack-up 180 feet in length with the LCF at 120 feet AF0 has a true mean draft (draft at LCF) of 10 feet. If the trim is 3 feet by the stern, what is the draft at the stern?	8.0 feet	9.0 feet	11.0 feet	12.0 feet	
4	8483	C	A jack-up 180 feet in length with the LCF at 120 feet AFO has a true mean draft (draft at LCF) of 10 feet. If the trim is 3 feet by the stern, what is the draft at the stern?	8.0 feet	9.0 feet	11.0 feet	12.0 feet	
4	8485	A	The DEEP DRILLER, at a draft of 60 feet, has a KGL of 55.4 feet and an LCG of 2.43 feet. What is the trim angle?	2° by the head	2° by the stern	4° by the head	4° by the stern	
4	8487	B	The DEEP DRILLER, at a draft of 19 feet, has a KGL of 59.91 feet and an LCG of 1.57 feet. What is the trim angle?	0.2° by the stern	0.3° by the stern	0.4° by the stern	0.5° by the stern	
4	8491	B	The DEEP DRILLER, at a draft of 50 feet, has a KGT of 52.12 feet and TCG of 0.5 foot to port of the longitudinal centerline. What is the list in feet?	2.7 feet to port	5.4 feet to port	5.7 feet to port	10.8 feet to port	
4	8493	D	What is the value of KML for the DEEP DRILLER at a draft of 60 feet?	59.63 feet	60.16 feet	61.68 feet	61.13 feet	
4	8505	C	The DEEP DRILLER, loaded as shown in the Sample Load Form #4 (Drilling), discharges a non-liquid load of 275.8 long tons from a position 130 feet above the keel, 40 feet forward of amidships, and 30 feet to port of the centerline. What is the improvement in KGL?	0.67 foot	0.98 foot	1.15 feet	2.06 feet	

4	8511	C	An elevated jack-up weighs 17,000 kips. Its center of gravity is located 110 feet aft of frame zero (AF0). What would be the new LCG if the cantilever (weight 900 kips) and drill floor (weight 800 kips) were skidded 70 feet aft?	103.0 feet AF0	113.4 feet AF0	117.0 feet AF0	180.0 feet AF0	
4	8513	C	An elevated jack-up weighs 14,000 kips. Its TCG is located 1.0 foot to port of the centerline. What would be the new TCG for the jack-up if the drill floor, weighing 700 kips, is skidded 10 feet to starboard?	9.00 feet starboard	0.50 foot starboard	0.50 foot port	1.0 foot port	
4	8515	C	While preparing for a storm when elevated, the total weight of the COASTAL DRILLER is 14,150 kips, LM are 1,712,150 ft-kips, and TM are -9,905 ft-kips. The starboard leg reaction is _____.	4,536 kips	4,698 kips	4,725 kips	4,890 kips	
4	8517	D	While preparing for a storm when elevated, the total weight of the COASTAL DRILLER is 14,150 kips. LM are 1,712,150 ft-kips, and TM are -9,905 ft-kips. The port leg reaction is _____.	4,536 kips	4,716 kips	4,824 kips	4,890 kips	
4	8521	A	The COASTAL DRILLER, while drilling, has a total weight of 15,435 kips. The LM are 1,975,680 ft-kips and the TM are -15,435 ft-kips. What is the bow leg reaction?	4,060 kips	5,145 kips	5,559 kips	5,816 kips	
4	8523	C	The COASTAL DRILLER, while drilling has a total weight of 15,435 kips. The LM are 1,975,680 ft-kips and the TM are -15,435 ft-kips. What is the starboard leg reaction?	4,060 kips	5,145 kips	5,559 kips	5,816 kips	
4	8527	D	The COASTAL DRILLER, while drilling, has a total weight of 15,435 kips. The LM are 1,975,680 ft-kips and the TM are -15,435 ft-kips. What is the port leg reaction?	4,060 kips	5,145 kips	5,559 kips	5,816 kips	
4	8533	C	If you observe any situation which presents a safety or pollution hazard during fuel transfer operations on a MODU, what action should you take FIRST?	Wait for the person in charge to act.	Notify the ballast control operator.	Shut down the transfer operation.	Sound the fire alarm.	
4	8535	A	You are transferring fuel from a supply vessel to your MODU. If you close off one tank in the line of tanks being filled, the rate of flow to other open tanks on the same line will _____.	increase	decrease	stop	stabilize	
4	8537	C	The full period of motion of the DEEP DRILLER while in transit is 7 seconds and the maximum pitch angle as seen on the inclinometers is 7°. From the standpoint of critical motion, the motion is _____.	satisfactory, keep the unit at transit draft	satisfactory, put the unit in standby	unsatisfactory, ballast to survival draft	unsatisfactory, place unit in standby	
4	8541	A	The process of waiting a period of time before pretensioning an anchor is known as _____.	soaking	settling	sinking	bedding in	
4	8543	B	It is proposed to moor the DEEP DRILLER in 600 feet of water in a region in which the effective wind velocity could reach 80 knots, significant wave height could reach 30 feet, and the current could be 1.5 knots. If these conditions occurred at the same time from the bow, the environmental force due to the wind would be _____.	595 kips	475 kips	425 kips	300 kips	

4	8545	B	It is proposed to moor the DEEP DRILLER in 600 feet of water in a region in which the effective wind velocity could reach 80 knots, significant wave height could reach 30 feet, and the current could be 1.5 knots. If these conditions occurred at the same time from the bow, the total environmental force would be _____.	620 kips	595 kips	475 kips	425 kips	
4	8547	C	What does the term "head" mean when applied to a pump?	Length of its discharge pipe	Height of its discharge pipe	Difference between the discharge and suction pressures	Sum of discharge and suction pressures	
4	8551	B	On offshore drilling units, each fire station is required to be fitted with at least one spanner and at least one _____.	fire axe	hose rack	sandbag	scupper	
4	8553	A	On offshore drilling units, each fire station is required to be fitted with a hose which has a nominal diameter of _____.	1-1/2 or 2-1/2 inches	2 or 3 inches	2-1/2 or 3-1/2 inches	3 or 4 inches	
4	8557	A	Each fire pump on a MODU must have a pressure gauge located at _____.	the pump discharge	the manifold connection	each fire station discharge	the pump station	
4	8561	B	On a MODU, a fire pump may be used for other purposes if _____.	the other services are run off a reducing station with a pressure gage	a separate fire pump is available for use on the fire main	all other services are operated by a manifold near the pump	All of the above	
4	8563	C	How often must CO2 systems be inspected to confirm cylinders are within 10% of the stamped full weight of the charge?	quarterly	semiannually	annually	biannually	
4	8575	B	If a man falls overboard from a rig under tow, you should FIRST _____.	notify the tug	deploy life buoys	launch a boat	sound the general alarm	
4	8576	B	The ventilation system of your ship has fire dampers restrained by fusible links. Which statement is TRUE?	A fusible link will automatically open after a fire is extinguished and reset the damper.	Fusible links must be replaced if a damper is activated.	Fusible links are tested by applying a source of heat to them.	Fusible links must be replaced at every inspection for certification.	
4	8577	D	The indication of a slipping anchor is a(n) _____.	decrease in mooring line length	increase in the opposite amperage	increase in the opposite line tension	decrease in mooring line tension and amperage	
4	8581	B	Survival practice in the mooring system is to slack off the tensions on the leeward side and _____.	deballast the unit to transit draft	adjust as evenly as practical the windward tensions	release the anchors on the windward side	tighten the anchor buoys on the leeward side anchors	
4	8583	D	After cranes have been installed on offshore drilling units the hooks, hook block, slings, rib and other rigging must be load tested. This test must be performed once each _____.	12 months	24 months	36 months	48 months	
4	8584	C	When transferring survivors from an enclosed lifeboat to a rescue vessel, personnel on board the boat should _____.	remove their life preservers to make it easier to climb on board the rescue vessel	climb on top of the boat while waiting for their turn to transfer to the rescue vessel	remain seated inside and make the transfer one person at a time	enter the water and swim over to the rescue vessel	
4	8585	C	A MODU must have on board a first-aid kit that is approved by the _____.	Minerals Management Service	Occupational Safety and Health Administration	Mine Safety and Health Administration	American Bureau of Shipping	

4	8587	B	The person assigned to command a lifeboat or inflatable liferaft on a MODU shall have a list of the persons assigned to the lifeboat or liferaft. The list shall include each person's _____.	home address	duties	home phone number	nearest relative's address	
4	8591	C	Prior to burning or welding on a fuel tank on a MODU, regulations require that an inspection be made. An entry in the unofficial logbook is required if this inspection is made by _____.	a marine chemist	the Officer in Charge, Marine Inspection	the Master or person in charge of the MODU	the National Fire Protection Association	
4	8593	D	Who is responsible for insuring that the accommodations on a mobile offshore drilling unit are maintained in a clean and sanitary condition?	The galley personnel	The safety man	The relief toolpusher	The designated person in charge	
4	8595	B	When a survival craft drill is held, the person in charge must insure that _____.	all survival craft are lowered to the water, launched, and operated for thirty minutes	all davits used for launching liferafts are operated	each emergency position indicating radio beacon is tested for thirty minutes	the helicopter pad landing lights are operating in a quick-flashing mode	
4	8597	C	On offshore drilling units, the EPIRB on board is required to be tested _____.	daily	weekly	monthly	yearly	
4	8601	A	Offshore drilling units must have at least two ring buoys with water lights that, when released from the mounting rack, activate a _____.	smoke signal	steam whistle	battery powered horn	radio signal	
4	8603	B	On offshore drilling units, the lifeboats must be lowered to the water and maneuvered at least once every _____.	2 months	3 months	6 months	12 months	
4	8605	B	On offshore drilling units, the lifeboat motors shall be operated in the ahead and astern position at least once each _____.	day	week	month	year	
4	8615	B	The LWT anchor has two angular positions for the flukes. These are _____.	30° and 40°	30° and 50°	30° and 60°	40° and 60°	
4	8621	C	What is the transverse shift in the center of gravity if 200 short tons are placed 10 feet to port of the centerline on a MODU with TCG 0.7 foot starboard of the centerline, and the displacement is 9,000 short tons?	0.03 foot	0.20 foot	0.23 foot	0.62 foot	
4	8623	A	What is the new location of the transverse center of gravity if 200 short tons are placed 10 feet to port of the centerline on a MODU with TCG 0.7 foot starboard of the centerline, and displacement 9,000 short tons?	0.47 foot starboard of centerline	0.40 foot starboard of centerline	0.23 foot port of centerline	0.20 foot port of centerline	
4	8625	A	What is the new location of the transverse center of gravity if 200 short tons are discharged from 10 feet to port of the centerline on a MODU with TCG 0.7 foot starboard of the centerline, and the displacement is 9,000 short tons?	0.94 foot starboard of centerline	0.90 foot starboard of centerline	0.47 foot port of centerline	0.23 foot port of centerline	
4	8627	B	What is the shift in the longitudinal center of gravity if 200 short tons are discharged from 30 feet forward of amidships on a MODU with LCG 1.5 feet forward of amidships, and displacement 9,000 short tons?	0.62 foot aft	0.65 foot aft	0.68 foot aft	0.71 foot aft	

4	8631	B	What is the new location of the longitudinal center of gravity if 200 short tons are discharged from 30 feet forward of amidships on a MODU with LCG 1.5 feet forward of amidships, and displacement 9,000 short tons?	0.88 foot forward of amidships	0.85 foot forward of amidships	0.82 foot forward of amidships	0.79 foot forward of amidships	
4	8635	D	A weight of 1,000 kips is equivalent to _____.	1,000 pounds	2,000 short tons	2,240 pounds	500 short tons	
4	8637	D	Which type of hull damage on a floating MODU should be repaired first?	Damage below the waterline	Damage to interior watertight boundaries	Damage to/in machinery rooms	Damage at or just above the waterline	
4	8643	D	The analysis of damaged stability for the DEEP DRILLER, disregards the beneficial effects of countermeasures and _____.	horizontal area of the platform	vertical area of the platform	wind strength	mooring system	
4	8645	C	In the analysis of damaged stability for the DEEP DRILLER, disregarded are the beneficial effects of moorings and _____.	horizontal area of the platform	vertical area of the platform	countermeasures	wind strength	
4	8647	A	While the DEEP DRILLER is loaded as shown in Sample Form #4 (Drilling), casing is accidentally dropped over the port side. Because the tank sounding level and port forward inclination are rapidly increasing, you decide that tank 1P is damaged. Your best countermeasure is to _____.	deballast from tank 2P	dump the mud	counterflood into 9S	counterflood into C3S	
4	8651	A	While the DEEP DRILLER is loaded as shown in Sample Form #4 (Drilling), casing is accidentally dropped over the port side. Because the sounding level and port aft inclination are slowly increasing, you decide that tank 10P has minor damage. Among the possible corrective actions is _____.	deballast from tank 9P	dump the mud	counterflood into 2S	counterflood into 10P	
4	8653	A	While the DEEP DRILLER is loaded as shown in Sample Form #4 (Drilling), casing is accidentally dropped over the starboard side. Because the sounding level and starboard inclination are rapidly increasing, you decide that tank 1S is damaged. Your best countermeasure is to _____.	deballast from tank 2S	dump the mud	counterflood into 9P	place a wooden plug into the vent of tank 2S	
4	8655	D	While the DEEP DRILLER is loaded as shown in Sample Form #4 (Drilling), casing is accidentally dropped on the starboard side. Because the sounding level and starboard aft inclination are slowly increasing, you decide that tank 10S has minor damage. Among the possible corrective actions is _____.	deballast from tank 9P	dump the mud	counterflood into 2P	place a wooden plug into the vent of tank 10S	
4	8657	A	While the DEEP DRILLER is operating as shown in Sample Form #4 (Drilling), casing is accidentally dropped over the port side. If the port aft inclination is slowly increasing, which tank is probably damaged?	10P	9P	10S	1P	
4	8661	C	While the DEEP DRILLER is operating as shown in Sample Form #4 (Drilling), casing is accidentally dropped over the starboard side. If the starboard aft inclination is slowly increasing, which tank is probably damaged?	9S	8S	10S	10P	
4	8662	D	When may a work vest be substituted for a required life preserver?	To replace a damaged life preserver	For use during fire drills	For use during boat drills	At no time	

4	8663	A	While the DEEP DRILLER is operating as shown in Sample Load Form #4 (Drilling), casing is accidentally dropped over the starboard side. If the starboard forward inclination is slowly increasing, which tank is probably damaged?	1S	2S	3S	1P	
4	8665	C	The DEEP DRILLER, while loaded as shown in the Sample Load Form #5 (Survival) loads an additional 137.88 long tons. The resulting trim by the stern is 2 feet and the list to port is 3 feet. What is the draft at the port forward draft mark?	45 feet 6 inches	46 feet 0 inches	46 feet 6 inches	47 feet 0 inches	
4	8671	D	The plans, for use during emergencies aboard the DEEP DRILLER, are readily available in the _____.	wheelhouse under glass	pump room	OIM's office	ballast control room	
4	8673	D	The DEEP DRILLER is operating at the maximum allowable KGT at 60 feet draft. What is the value of GMT?	0.05 foot	1.02 feet	2.63 feet	4.34 feet	
4	8675	B	The DEEP DRILLER, at 60.0 feet draft in sea water, discharges 275.8 long tons. What is the new draft?	56 feet	58 feet	60 feet	62 feet	
4	8681	C	The DEEP DRILLER, while loaded as shown in the Sample Load Form #5, loads 275.8 long tons. The resulting trim by the stern is 3 feet and list to port is 2 feet. What is the draft at the starboard aft draft mark?	44 feet 6 inches	47 feet 0 inches	47 feet 6 inches	48 feet 6 inches	
4	8683	D	With no environmental forces on the DEEP DRILLER, the average of the forward drafts is 61.0 feet, and the average of the aft drafts is 59.0 feet. KGL is 51.13 feet. What is the value of LCG?	-0.12 foot	0.12 foot	2.11 feet	2.35 feet	
4	8685	C	The DEEP DRILLER, at 58.0 feet draft in sea water, places 275.8 long tons on board. What is the new draft?	56 feet	58 feet	60 feet	62 feet	
4	8687	B	The DEEP DRILLER, at 58.0 feet draft in sea water, places 200 long tons on board. What is the new draft?	56.55 feet	59.45 feet	60.00 feet	75.41 feet	
4	8688	D	Life floats must be equipped with _____. (small passenger vessel regulations)	a sea anchor	a signal mirror	an EPIRB	paddles	
4	8691	B	The DEEP DRILLER, at 58.0 feet draft in sea water, discharges 200 long tons. What is the new draft?	55.55 feet	56.55 feet	57.05 feet	59.45 feet	
4	8693	A	While in transit at a draft of 20.5 feet, the DEEP DRILLER has a KGT of 65.00 feet. What is the GMT?	7.55 feet	5.42 feet	5.30 feet	5.10 feet	
4	8695	B	The DEEP DRILLER, at 58.0 feet draft in sea water, discharges 200 long tons. What is the new displacement?	16,263 long tons	17,642 long tons	17,842 long tons	18,118 long tons	
4	8697	C	The DEEP DRILLER, at 58.0 feet draft in sea water, loads 200 long tons. What is the new displacement?	17,642 long tons	17,842 long tons	18,042 long tons	18,118 long tons	
4	8699	A	What are the transverse moments for the contents of P-tank #1 of the DEEP DRILLER if the ullage is 2.3 feet?	3,049 ft-tons	3,977 ft-tons	6,412 ft-tons	8,362 ft-tons	
4	8701	C	The DEEP DRILLER is loaded as shown in Sample Load Form #4 (Drilling). While the unit is deballasting, starboard valve 19 fails in the closed position. You may deballast from tank 9S by pumping from tank 8S by opening valves 20 and _____.	35	21	18	17	
4	8702	C	An oil fire is classified as class _____.	D	C	B	A	

4	8703	D	The DEEP DRILLER is loaded as shown in Sample Load Form #5 (Survival). While the unit is deballasting, port valve 5 fails in the closed position. You may deballast from tank 2P by pumping from tank 1P after opening valves 6 and _____.	35	7	4	2	
4	8705	C	The DEEP DRILLER is loaded as shown in Sample Load Form #5 (Survival). While the unit is deballasting, starboard valve 5 fails in the closed position. You may deballast from tank 2S by pumping from tank 1S after opening valves 6 and _____.	8	7	2	1	
4	8707	A	The DEEP DRILLER is loaded as shown in Sample Load Form #4 (Drilling). If port valves 24 and 2 are mistakenly opened, the change in inclination will be increasing trim by the _____.	bow with port list	bow	stern	stern with starboard list	
4	8711	A	Starboard ballast pump #1 on the DEEP DRILLER has failed. If you want to deballast from the forward-starboard column using starboard pump #2, it is necessary to open valves _____.	3, 34, 35, 36, 46, and 48	4, 34, 35, 36, 46, and 48	3, 34, 36, 46, and 48	4, 34, 36, 46, and 48	
4	8712	C	Jettisoning weight from topside _____.	returns the vessel to an even keel	reduces free surface effect	lowers the center of gravity	raises the center of buoyancy	
4	8713	A	Port ballast pump #1 on the DEEP DRILLER has failed. If you want to deballast the forward-port column using port ballast pump #2, it is necessary to open valves _____.	3, 34, 35, 36, 46, and 48	4, 34, 35, 36, 46, and 48	3, 34, 36, 46, and 48	4, 34, 36, 46, and 48	
4	8715	A	Starboard ballast pump #1 on the DEEP DRILLER has failed. To deballast from tank C2SA using starboard ballast pump #2, it is necessary to open the manual valve and which motor driven valves?	15, 34, 35, 36, 46, 48	16, 27, 32, 35, 36, 48	15, 33, 43, 48	14, 34, 35, 36, 46, 48	
4	8716	A	The midships house of your break bulk ship is constructed with an interior stair tower from the main deck to the bridge. Under what circumstances may the doors from each deck to the stair tower be kept open when underway?	They may be kept open if they can be automatically closed from the bridge.	They are to be kept closed at all times.	They may be kept open if the ventilation or air conditioning system is shut down.	They can be kept open if the Muster List ("Station Bill") has personnel designated to close them in case of fire.	
4	8717	B	The DEEP DRILLER, at 60.0 feet draft in sea water, has VM = 974,441 foot-long tons, LM = 40,301 foot-long tons, TM = 3 foot-long tons, FSML = 30,572 foot-long tons, and FSMT = 18,732 foot-long tons. What is the uncorrected height of the center of gravity?	52.14 feet	53.78 feet	55.03 feet	58.50 feet	
4	8721	B	The DEEP DRILLER, at 60.0 feet draft in sea water, has VM = 974,441 foot-long tons, LM = 3 foot-long tons, FSML = 30,572 foot-long tons, and FSMT = 18,732 foot-long tons. What is the transverse free surface correction to KG?	0.00 feet	1.03 feet	1.69 feet	2.22 feet	
4	8723	C	The DEEP DRILLER, at 60.0 feet draft in sea water, has VM = 974,441 foot-long tons, LM = 40,301 foot-long tons, TM = 3 foot-long tons, FSML = 30,572 foot-long tons, and FSMT = 18,732 foot-long tons, and FSMT = 18,732 foot-long tons. What is the LCG?	0.00 feet	1.69 feet	2.22 feet	3.91 feet	

4	8727	C	The DEEP DRILLER, at 60.0 feet draft in sea water, has VM = 974,441 foot-long tons, LM = 40,301 foot-long tons, TM = 3 foot-long tons, FSML = 30,572 foot-long tons, and FSMT = 18,732 foot-long tons. What is the longitudinal free surface correction to KG?	0.00 feet	1.03 feet	1.69 feet	2.22 feet	
4	8731	A	The DEEP DRILLER, at 60.0 feet draft in sea water, has VM = 974,441 foot-long tons, LM = 40,301 foot-long tons, TM = 3 foot-long tons, FSML = 30,572 foot-long tons, and FSMT = 18,732 foot-long tons. What is TCG?	0.00 feet	1.03 feet	2.22 feet	3.91 feet	
4	8733	B	The DEEP DRILLER, loaded as shown in the Sample Load Form #4 (Drilling), discharges a non-liquid load of 275.8 long tons from a position 130 feet above the keel, 40 feet forward of amidships, and 30 feet to port of the centerline. What is the new LCG?	0.59 foot	1.64 feet	2.23 feet	2.82 feet	
4	8734	A	All personnel should be familiar with the lifeboats _____.	boarding and operating procedures	maintenance schedule	navigational systems	fuel consumption rates	
4	8735	C	The DEEP DRILLER is loaded as shown in Sample Load Form #4 (Drilling). What would be the new sum of FSML for Fresh Water if the entire contents of Drill Water Tank #5P are transferred to Tank #5S?	3,645 ft-tons	3,328 ft-tons	317 ft-tons	0 ft-tons	
4	8737	B	The DEEP DRILLER is loaded as shown in the Sample Load Form #4 (Drilling). What would be the weight of the mud in pit #4 if the mud weight was changed from 16 to 14 pounds per gallon?	No change	93.34 long tons	121.91 long tons	135.13 long tons	
4	8747	A	If a severe storm threatens the COASTAL DRILLER while elevated, the setback in the derrick should be lowered and placed in the pipe rack. Its weight should be accounted for as _____.	variable loads	drilling loads	environmental loads	fixed weight	
4	8751	D	When threatened with a severe storm while operating in 250 feet of water, the COASTAL DRILLER should be placed at an air gap of _____.	35 feet	32 feet	30 feet	25 feet	
4	8753	A	The maximum weight for the COASTAL DRILLER in severe storm conditions is _____.	14,158 kips	14,400 kips	15,158 kips	17,280 kips	
4	8755	C	While elevated, the COASTAL DRILLER prepares for a severe storm. When the setback is lowered and placed in the pipe racks, it is considered as part of the _____.	fixed loads	basic loads	variable loads	storm loads	
4	8757	C	The routes to be used during evacuation of the COASTAL DRILLER are shown in the _____.	official log	Muster List ("Station Bill")	posted Fire Control/Lifesaving Plan	control room under glass	
4	8761	C	The full period of motion of the DEEP DRILLER while tripping is 7 seconds and the maximum pitch angle as seen on the inclinometers is 4°. From the standpoint of critical motion, the motion is _____.	unsatisfactory, place setback in the pipe racks	satisfactory, continue tripping	unsatisfactory, deballast to survival draft	satisfactory, but prepare to hang off	
4	8763	C	After deploying the anchor, a permanent chain chaser is _____.	removed from the anchor chain	connected to a buoy at the anchor	stripped back to the rig and secured	connected to a buoy halfway down the chain	

4	8767	D	In securing deck loads for an ocean tow, drill pipe should be _____.	galvanized to protect against corrosion	held in place with heavy materials such as spare pendant wire	limited to no more than five courses high	provided with bulwarks at both ends of their bays	
4	8771	C	Hydrogen sulfide in explosive concentrations has been detected on the drill floor. The abandon rig signal has been sounded. To evacuate the rig, the crew should use _____.	all survival capsules and liferafts	only the leeward survival capsules and liferafts	only the windward survival capsules	only the windward liferafts	
4	8773	A	The muster list shows each rig hand's muster station, his duties during abandonment, basic instructions, and _____.	all emergency signals	instructions for lowering the survival craft	the time each weekly drill will be held	work schedule	
4	8775	C	While drilling loaded as shown in Sample Load Form #4 (Drilling), the DEEP DRILLER suffers a sudden unexpected forward inclination. The wind and waves are light from the starboard bow. Among the possible causes, you should consider _____.	failure of mooring lines 2 and 3	drilling crew has dumped the mud	the drill string has broken	ballast tanks equalizing into tank 1P	
4	8777	B	On a MODU, an obvious indicator of lost circulation of drilling fluid is _____.	fluid level in the mud pits increases rapidly	fluid level in the mud pits decreases rapidly	increased cuttings on the shale shaker	decreased cuttings on the shale shaker	
4	8781	B	To determine the number of certificated Lifeboatmen required on a mobile offshore drilling unit, you should check the _____.	load line certificate	Certificate of Inspection	Safety of Life at Sea Certificate	Operations Manual	
4	8782	B	Control of fire should be addressed _____.	immediately after restoring vital services	immediately	following control of flooding	following establishment of fire boundaries	
4	8783	A	When using a hand held smoke signal aboard a survival craft, you should activate the signal _____.	on the downwind side of the craft	on the upwind side of the craft	inside the craft	at the stern of the craft	
4	8793	B	While drilling loaded as shown in Sample Load Form #4 (Drilling), the DEEP DRILLER suffers a sudden unexpected inclination to port and aft. Strong winds and high waves are from the starboard bow. Among the possible causes, you should consider _____.	failure of mooring lines 1 or 2	failure of mooring lines 3 or 4	leak in ballast tank #9P	ballast tanks equalizing into tank 10P	
4	8807	A	The prohibition against displaying lights which may be confused with required navigation lights applies _____.	from sunset to sunrise and during restricted visibility	only when other vessels are in the area	only when operating in a traffic separation scheme	only when under tow	
4	8817	C	A jack-up has 8 inches of trim by the stern. Calculations show that the moment required to change trim one inch (MCT1") is 500 foot-kips. To level the unit, how far must a weight of 50 kips be transferred toward the bow?	10.0 feet	62.5 feet	80.0 feet	100.0 feet	
4	8821	B	A jack-up is trimmed six inches by the bow. The moment required to change trim one inch (MCT1") is 1200 foot-kips. Transferring 200 kips of drill water from a tank with an LCG of 20 feet to a tank with an LCG of 140 feet results in a final trim of _____.	zero trim (level)	1 foot 2 inches by the stern	1 foot 8 inches by the stern	2 feet 2 inches by the stern	
4	8823	B	The draft at the forward draft mark of a jack-up is 11 feet 3 inches while the draft at the aft draft mark is 12 feet 9 inches. The value of trim is _____.	six inches to the stern	1 foot 6 inches to the stern	3 feet to the stern	24 feet to the stern	
4	8825	B	A jack-up, while level in transit at 10 feet draft, experiences a wind gust which results in a starboard draft of 11 feet 6 inches. What is the heel?	1 foot 6 inches to starboard	3 feet to starboard	3 feet to port	1 foot 6 inches to port	

4	8827	C	A jack-up, while level in transit at 10 feet draft, experiences a wind gust which results in a port draft of 11 feet. What is the heel?	1 foot to starboard	2 feet to starboard	2 feet to port	1 foot to port	
4	8831	D	A jack-up, while level in transit at 10 feet draft, experiences a wind gust which results in a port draft of 11 feet. What is the new starboard draft?	12 feet	11 feet	10 feet	9 feet	
4	8833	B	A jack-up level at 12.5 feet draft transfers 100 kips of drill water from a tank with a TCG of -30 feet to a starboard tank with a TCG of 70 feet. The resulting starboard draft is 13 feet. The moment required to change list one inch (MCL1") is _____.	667 foot-kips	833 foot-kips	1,400 foot-kips	1,667 foot-kips	
4	8835	D	A jack-up with a calculated moment to change list one inch (MCL1") of 1,350 foot-kips intends to transfer drill water from a tank with a TCG of 82 feet to a tank with a TCG of 18 feet. How much weight should be transferred to change the draft on the port side from 11.0 to 11.5 feet?	67.5 kips	81.0 kips	126.6 kips	253.1 kips	
4	8837	D	A jack-up with a calculated moment to change list one inch (MCL1") of 1,200 foot-kips intends to transfer 100 kips of weight in a transverse direction. How far should the weight be transferred to change the draft on the port side from 11.5 to 11.0 feet?	12 feet	48 feet	120 feet	144 feet	
4	8843	A	A semisubmersible in transit is at a draft of 19 feet. The depth of the lower hulls is 21 feet. How much bunker fuel at 54.0 lbs/cu ft could be taken on and still provide one foot of freeboard if the TPI is 52.3?	627.6 long tons	648.0 long tons	843.9 long tons	255.2 long tons	
4	8845	B	A semisubmersible at a draft of 19 feet 9 inches arrives on location planning to deploy eight mooring lines. Each anchor weighs 15 long tons and each mooring line consists of 3,000 feet of 3-inch chain (89.6 lbs/ft). If no ballast corrections are made, what is the expected draft if the average TPI is 60?	17 feet 9 inches	18 feet 3 inches	18 feet 9 inches	21 feet 3 inches	
4	8847	B	A semisubmersible 300 feet long and an LCF of 0 (amidships) is in transit with hulls awash and an MT1" of 87.67 foot-tons. Work on the BOP (weight 263 long tons) requires that it be moved aft 12 feet. What is the resulting trim change?	1.5 feet	3.0 feet	6.0 feet	7.3 feet	
4	8848	B	Enclosed lifeboats which have been afloat over a long period of time require _____.	frequent opening of hatches to permit entry of fresh air	regular checks of bilge levels	use of ear plugs to dampen engine noise	frequent flushing of the water spray system with fresh water	
4	8849	D	What is the minimum number of bolts required in a permanently bolted flange oil hose coupling?	3	4	6	A bolt must be used in every hole.	
4	8851	D	While underway in a field move with the lower hulls awash, a semisubmersible has an allowable KG of 63.69 feet; KMT is 65.12 and KML is 64.92. The KGT is 56.13 and KGL is 55.89. What is the GML?	1.43 feet	7.56 feet	7.80 feet	9.03 feet	

4	8853	B	While underway in a field move with the lower hulls awash, a semisubmersible has a maximum allowable KG of 63.69 feet; KMT is 65.12 and KML is 64.92. The KGT is 56.13 and KGL is 55.89. What is the margin on the maximum allowable KG?	1.43 feet	7.56 feet	7.80 feet	8.99 feet	
4	8855	B	The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). If weather conditions make it necessary to ballast down to survival, how much ballast would be required?	3,998.3 long tons	4,086.5 long tons	4,188.0 long tons	5,087.0 long tons	
4	8861	B	The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). Weather conditions require ballasting to survival draft. Assume that upon arrival at 45 feet, port and starboard ballast tanks 2 and 9 will be full and that port and starboard ballast tanks 1, 3, and 8 will be slack. What would be the new value of the total longitudinal free surface moments (FSML)?	69,658 foot-tons	56,244 foot-tons	42,830 foot-tons	30,168 foot-tons	
4	8863	C	The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). Weather conditions require ballasting to survival draft. Assume that 4087 long tons of ballast are added at an average VCG of 8.32 feet, and upon arrival at 45 feet, port and starboard ballast tanks 1, 3, and 8 are slack. What is the new KGL?	51.65 feet	52.67 feet	55.16 feet	62.24 feet	
4	8865	A	The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). Although winds are less than 70 knots, excessive motion requires ballasting to survival draft. Assume that 4087 long tons of ballast are added at an average VCG of 8.32 feet, and upon arrival at 45 feet, port and starboard ballast tanks 1, 3, and 8 are slack. What will be the new margin on the maximum allowable KG?	7.08 feet	8.12 feet	8.44 feet	8.96 feet	
4	8867	C	The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). Weather conditions make it necessary to ballast down to survival draft. It is decided to check the stability at the intermediate draft of 32 feet. How much ballast is required to ballast to 32 feet?	2,094 long tons	2,194 long tons	2,294 long tons	3,294 long tons	
4	8871	C	The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). Weather conditions make it necessary to ballast down to survival draft. It is decided to check the stability at the intermediate draft of 32 feet. If the added ballast has an average VCG of 9.03 feet, what is the new KG?	54.76 feet	55.76 feet	57.22 feet	57.76 feet	
4	8873	D	The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). Weather conditions make it necessary to ballast down to survival draft. It is decided to check the stability at the intermediate draft of 32 feet. If the added ballast has an average VCG of 9.03 feet, and the sum of free surface moments is 56,244 foot-tons, what is the new KGL?	54.76 feet	55.76 feet	57.22 feet	61.16 feet	

4	8875	D	The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). Excessive motion makes it necessary to ballast down to survival draft. It is decided to check the stability at the intermediate draft of 32 feet. If the added ballast has an average VCG of 9.03 feet, and the sum of free surface moments is 56,244 foot-tons, what is the new margin on the maximum allowable KG?	6.23 feet	5.11 feet	4.86 feet	4.06 feet	
4	8877	D	The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). Severe motion makes it necessary to ballast down to survival draft. It is decided to check stability at the intermediate draft of 32 feet. If the added ballast has an average VCG of 9.03 feet, and the sum of free surface moments is 56,244 foot-tons, what is the new GML?	6.23 feet	5.11 feet	4.86 feet	4.06 feet	
4	8881	D	The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). How much additional deck load can be placed aboard without exceeding the deck load limit?	1,335.6 long tons	1,086.6 long tons	585.4 long tons	435.6 long tons	
4	8883	C	The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). Additional deck load may be placed aboard. If the maximum permissible deck load were placed in the pipe racks at a VCG of 130 feet, the KG increases _____.	1.43 feet	1.89 feet	2.23 feet	2.43 feet	
4	8885	A	The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). If the maximum permissible deck load were placed aboard at a VCG of 130 feet, what would be the new draft?	19 feet 9 inches	20 feet 4 inches	20 feet 8 inches	21 feet 4 inches	
4	8887	C	In observing rig motion while under tow, the period of roll is the time difference between _____.	zero inclination to full inclination on one side	full inclination on one side to full inclination on the other side	full inclination on one side to the next full inclination on the same side	zero inclination to the next zero inclination	
4	8891	D	Which type of respiratory protection is preferable for repair/investigation personnel on a MODU in a hydrogen sulfide (H2S) environment?	U.S. Navy Oxygen Breathing Apparatus (OBA)	Emergency Escape Breathing Apparatus (EEBA)	Demand Self-Contained Breathing Apparatus (SCBA)	Pressure-Demand Self-Contained Breathing Apparatus (SCBA)	
4	8893	D	AMVER is a system which provides _____.	satellite communications	navigational information	weather information	position reporting service	
4	8895	A	The AMVER system for vessels in the Gulf of Mexico is administered by the _____.	U.S. Coast Guard	Minerals Management Service	Department of Energy	Corps of Engineers	
4	8901	C	The Safety of Life at Sea Convention was developed by the _____.	U.S. Coast Guard	American Bureau of Shipping	International Maritime Organization	American Institute of Maritime Shipping	
4	8903	B	The most effective first aid treatment for chemical burns is to immediately _____.	apply ointment to the burned area	flood the affected area with water	wrap the burn with sterile dressing	apply an ice pack to the burned area	
4	8905	B	When it is necessary to remove a victim from a life threatening situation, the person giving first aid must _____.	pull the victim by the feet	avoid subjecting the victim to any unnecessary disturbance	carry the victim to a location where injuries can be assessed	place the victim on a stretcher before attempting removal	
4	8907	C	When giving first aid, you should understand how to conduct primary and secondary surveys and know _____.	which medications to prescribe	how to diagnose an illness from symptoms	the limits of your capabilities	how to set broken bones	

4	8911	D	If a victim is unconscious, you should first look for evidence of _____.	high fever	head injury	broken limbs	irregular breathing	
4	8913	D	In a semisubmersible MODU, the columns contain void spaces above the waterline that used principally for _____.	equipment storage	machinery	elevators	reserve buoyancy	
4	8917	C	The DEEP DRILLER is loaded as shown in Sample Load Form #4 (Drilling). While the unit is deballasting, starboard valve 17 fails in the closed position. You may deballast from tank 8S by pumping from tank 9S and opening valves 18 and _____.	35	21	20	17	
4	8923	C	The DEEP DRILLER is loaded as shown in Sample Load Form #4. While the unit is deballasting, port valve 5 fails in the closed position. You may deballast from tank 2P by pumping from tank 9P by also opening valves 6 and _____.	35	21	20	8	
4	8925	B	A vessel behaves as if all of its weight is acting downward through the center of gravity, and all its support is acting upward through the _____.	keel	center of buoyancy	tipping center	amidships section	
4	8927	B	On the COASTAL DRILLER, placing the rotary 34 feet aft of the transom and two feet to starboard of the centerline, limits the maximum hook load to _____.	1000 kips	875 kips	750 kips	450 kips	
4	8971	D	The change in weight (measured in tons) which causes a draft change of one inch is _____.	MT1 inch	ML1 inch	MH1 inch	TPI	
4	8973	D	For a floating vessel, the result of subtracting KG from KM is the _____.	height of the metacenter	height of the righting arm	height of the center of buoyancy	metacentric height	
4	8977	D	The important stability parameter, KG, is defined as the _____.	metacentric height	height of the metacenter above the keel	height of the center of buoyancy above the keel	height of the center of gravity above the keel	
4	8981	A	The important initial stability parameter, GM, is the _____.	metacentric height	height of the metacenter above the keel	height of the center of buoyancy above the keel	height of the center of gravity above the keel	
4	8983	D	The time required to incline from port to starboard and back to port again is called _____.	initial stability	range of stability	inclining moment	rolling period	
4	8985	D	The time required to incline from bow down to stern down and return to bow down again is called _____.	rolling period	amplitude moment	inclining moment	pitching period	
4	8987	D	The tendency of a vessel to return to its original trim after being inclined by an external force is _____.	equilibrium	buoyancy	transverse stability	longitudinal stability	
4	8991	D	The enclosed area defined as the intersection of the surface of the water and the hull of a vessel is the _____.	amidships plane	longitudinal reference plane	baseline	waterplane	
4	8993	C	The waterplane area is described as the intersection of the surface of the water in which a vessel floats and the _____.	baseline	vertical reference plane	hull	horizontal reference plane	
4	8994	C	Two types of anchor shackles which are currently available are _____.	U-Type and posilok shackles	C-Type and wedge shackles	D-Type and bow shackles	wedge and kenter shackles	
4	8997	B	Aboard a vessel, multiplying a load's weight by the distance of the load's center of gravity from the centerline results in the load's _____.	TCG	transverse moment	righting moment	transverse free surface moment	

4	9001	A	The difference between the starboard and port drafts caused by shifting a weight transversely is _____.	list	heel	trim	flotation	
4	9002	D	On all mobile offshore drilling units, the deckhead of each accommodation space must be located above _____.	the operating draft	the survival draft	the transit draft	the deepest load line	
4	9021	D	Aboard a vessel, dividing the sum of the longitudinal moments by the total weight yields the vessel's _____.	inclining moments	righting moments	vertical moments	longitudinal position of the center of gravity	
4	9067	C	The TCG of a vessel may be found by dividing the displacement of the vessel into the _____.	transverse center of gravity of the vessel	sum of the vertical moments of the vessel	sum of the transverse moments of the vessel	transverse baseline of the vessel	
4	9087	A	No outlet on a fire hydrant may point above the horizontal in order to _____.	avoid kinking the hose	avoid personal injury during connection	make connecting easier	prevent spray on electrical equipment	
4	9091	C	The outlet at a fire hydrant may be positioned anywhere from horizontal to pointing _____.	45° upward	vertically upward	vertically downward	all of the above	
4	9093	C	In addition to weighing the cartridge, which other maintenance is required for a cartridge-operated dry chemical extinguisher?	Weigh the powder in the canister.	Discharge a small amount to see that it works.	Check the hose and nozzle for clogs.	Check the external pressure gage.	
4	9097	A	When must a dry chemical fire extinguisher be recharged?	After each use	When the air temperature exceeds 90°F	Every 6 months	Every 12 months	
4	9098	C	When a rescue vessel approaches a lifeboat in heavy seas, the person in charge of the lifeboat should _____.	tie up to the rescue vessel	transfer only those personnel who are not seasick	wait for calmer weather before transferring personnel	transfer all personnel immediately	
4	9101	B	Recharging a previously used cartridge-operated dry-chemical extinguisher is accomplished by _____.	authorized fire equipment servicing personnel only	replacing the propellant cartridge and refilling with powder	puncturing the cartridge seal after installation	recharging the cartridge and refilling it with powder	
4	9105	B	Each ventilation system for an enclosed classified location on a MODU must provide a complete change of air every _____.	3 minutes	5 minutes	7 minutes	10 minutes	
4	9107	C	The amount of Halon remaining in an extinguisher is determined by _____.	internal inspection	checking the gage	weighing the cylinder	checking the tag	
4	9111	B	Inspection of a Halon extinguisher involves checking the hose, handle, nozzle, and _____.	sight glass	weighing the extinguisher	service technicians report	last date it was charged	
4	9113	D	After using a Halon extinguisher, it should be _____.	put back in service if more than 50% of the charge remains	repainted	discarded	recharged	
4	9115	A	An airplane should NOT send which signal in reply to a surface craft?	Opening and closing the throttle	Rocking the wings	Flashing the navigational lights off and on	Flashing Morse T	
4	9121	C	The blocking or absence of fire dampers can cause _____.	the accumulation of explosive gases	faster cooling of the fire	the fire to spread through the ventilation system	fixed foam systems to be ineffective	
4	9125	B	Automatic fire dampers in ventilation systems are operated by a _____.	remote operated valve	fusible link	CO2 system pressure switch	heat or smoke detector	
4	9129	B	Automatic fire dampers in ventilation systems are operated by use of a _____.	heat or smoke detector	fusible link	remote operated valve	C02 system pressure switch	

4	9137	D	Fighting a fire in the galley poses the additional threat of _____.	contaminating food with extinguishing agent	spreading through the engineering space	loss of stability	a grease fire in the ventilation system	
4	9153	C	The two factors which make underwater hull repair of a MODU difficult are accessibility and the _____.	availability of tools	shape of the hull	pressure exerted by the water	threat of progressive flooding	
4	9155	B	In plugging submerged holes on a MODU, rags, wedges, and other materials should be used in conjunction with plugs to _____.	reduce the water pressure on the hull	reduce the water leaking around the plugs	prevent progressive flooding	reduce the possibility of stress fractures	
4	9185	D	The external flotation bladder of an immersion suit should be inflated _____.	only after two hours in the water	only after four hours in the water	before entry into the water	upon entry into the water	
4	9187	B	The external flotation bladder on an immersion suit should be inflated _____.	before you enter the water	after you enter the water	after one hour in the water	after you notice that your suit is losing buoyancy	
4	9191	A	After abandoning a vessel, water that is consumed within the first 24 hours will _____.	pass through the body with little absorbed by the system	help to prevent fatigue	quench thirst for only 2 hours	help to prevent seasickness	
4	9192	C	The locker or space containing the self-contained breathing apparatus must be _____.	located in close proximity to the bridge	equipped with battery powered emergency lighting	marked "SELF-CONTAINED BREATHING APPARATUS"	All of the above	
4	9193	C	Drinking salt water will _____.	be safe if mixed with fresh water	prevent seasickness	dehydrate you	protect against heat cramps	
4	9195	B	When using the rain water collection tubes on a liferaft, the first collection should be _____.	passed around so all can drink	poured overboard because of salt washed off the canopy	saved to be used at a later time	used to boil food	
4	9205	D	When you are firing a pyrotechnic distress signal, it should be aimed _____.	horizontally and directly abeam of your vessel	at the vessel whose attention you want to attract	into the wind	at greater than 60 degrees above the horizon	
4	9217	C	Apparent wind speed blowing across a MODU under tow can be measured by a(n) _____.	barometer	wind vane	anemometer	thermometer	
4	9227	C	The longitudinal free surface correction of a floating MODU displacing 12,000 kips is 1.20 feet. What would be the new FSCL if 2,400 kips of solid variable loads are added?	1.50 feet	1.20 feet	1.00 foot	0.83 foot	
4	9231	B	The transverse free surface correction of a floating MODU displacing 24,000 long tons is 1.0 foot. When the MODU is deballasted by discharging 8,000 long tons of ballast, the FSMT decreases by 4,000 ft-long tons. What is the new FSCT?	1.50 feet	1.25 feet	1.00 foot	0.83 foot	
4	9233	C	A ballast tank in a floating MODU has a maximum FSML of 7,000 ft-long tons. If the tank is converted to drill water storage, what would be the new maximum FSML?	7,179 ft-long tons	7,000 ft-long tons	6,825 ft-long tons	2,125 ft-long tons	
4	9235	C	The longitudinal free surface moments of a drilling mud pit aboard a MODU displacing 24,000 long tons in sea water is 1,200 ft-long tons. If the sounding level in the mud pit is reduced from 8 to 6 feet and the mud weight increases from 10 to 12 lbs/gallon, what is the new FSML for the mud pit?	750 ft-long tons	1,000 ft-long tons	1,440 ft-long tons	1,920 ft-long tons	

4	9237	B	A MODU floating in sea water while displacing 20,000 long tons has transverse free surface moments of 7,500 ft-long tons and longitudinal free surface moments of 10,000 ft-long tons. The maximum virtual rise in the height of the center of gravity due to free surfaces is _____.	0.35 foot	0.50 foot	0.88 foot	2.00 feet	
4	9241	A	The DEEP DRILLER, while loaded as shown in the Sample Load Form #5, discharges 137.88 long tons. The resulting trim by the stern is 3 feet and list to port is 2 feet. What is the draft at the starboard forward draft mark?	41 feet 6 inches	42 feet 6 inches	43 feet 6 inches	44 feet 0 inches	
4	9243	B	The DEEP DRILLER, while loaded as shown in the Sample Load #5, discharges 275.8 long tons. The resulting trim by the stern is 3 feet and list to port is 2 feet. What is the draft at the port aft draft mark?	43 feet 6 inches	45 feet 6 inches	48 feet 0 inches	49 feet 6 inches	
4	9245	C	The object of plugging holes below the waterline on a MODU should be to _____.	eliminate all water entering the hole	only plug holes in machinery or other vital spaces	reduce the entry of water as much as possible	plug the largest holes first	
4	9247	C	What type of test determines the pressure at which the formation immediately below the last set casing will take fluid?	Production	Drill stem	Leak-off	Conductor	
4	9251	B	For well control, the American Petroleum Institute recommends that hydraulic units have sufficient horsepower to close the annular preventer in _____.	15 seconds	30 seconds	45 seconds	60 seconds	
4	9253	B	At the instant when a string of casing being run from a MODU is landed in the well head, _____.	the total weight in air of the casing string is removed from the MODU	the hook load (weight of the casing string) is removed from the MODU	the weight of the casing inside the riser is removed from the MODU	the weight of the casing string added to the weight of the fill-up mud is removed from the MODU	
4	9255	D	A low pressure annular preventer which is used to direct flow of kick fluids away from the rig floor is called a _____.	dump valve	deflector	separator	diverter	
4	9257	C	The shear rams of a MODU blowout preventer stack are used in emergency well control to _____.	close and seal around the drill pipe	close and seal around casing	cut off pipe inside the preventer stack	close and seal around drill collars	
4	9261	B	The retrievable subsea units that contain the pilot valves and regulators for operating the subsea blowout preventers are called _____.	accumulators	control pods	consoles	shuttle controls	
4	9263	B	A casing string that is run below the previous casing string, but does not extend to the wellhead is called a _____.	production string	liner	packer	squnch joint	
4	9265	C	Oil well casing will fail when the external pressure exceeds the internal pressure by a differential equal to the casing's rated _____.	tensile strength	hoop stress	collapse pressure	burst pressure	
4	9267	C	Lifeboat winches on a MODU are required to be inspected and an entry made in the logbook. What should this entry include?	The time required to lower a lifeboat	The time required to raise a lifeboat	The date of inspection and condition of the winch	All of the above	
4	9271	D	You are involved in an emergency landing of a helicopter on the water. You should inflate your life jacket _____.	upon entering the helicopter	prior to reaching the water	after reaching the water, but prior to exiting the helicopter	after exiting clear of the helicopter	

4	9273	B	After being launched from MODUs, totally enclosed survival craft which have been afloat over a long period require _____.	frequent opening of hatches to permit entry of fresh air	regular checks of bilge levels	use of ear plugs to dampen engine noise	frequent flushing of the water spray system with fresh water	
4	9275	D	A jack-up displacing 15,000 kips has a KG of 20 feet. The legs weighing 3,500 kips are lowered 100 feet. What is the new KG?	23.33 feet	18.67 feet	4.67 feet	-3.33 feet	
4	9276	B	You are underway when a fire breaks out in the forward part of your vessel. If possible, you should _____.	call for assistance	put the vessel's stern into the wind	abandon ship to windward	keep going at half speed	
4	9277	C	A floating jack-up with displacement of 15,000 kips has its LCG 108 feet aft of frame zero (AFO). If 400 kips are loaded at 120 feet AFO and 800 kips are loaded 150 feet AF0, what is the new LCG?	100.0 feet	109.2 feet	110.4 feet	119.2 feet	
4	9281	B	A floating jack-up with displacement of 15,000 kips has its LCG 106 feet aft of frame zero (AF0). If 200 short tons are loaded at 20 feet AF0 and 400 short tons are loaded 149 feet AF0, what is the new LCG?	105.5 feet	106.0 feet	108.3 feet	111.8 feet	
4	9282	C	There is a fire aft aboard your vessel. To help fight the fire, you should put the _____.	wind off either beam	stern into the wind and increase speed	bow into the wind and decrease speed	stern into the wind and decrease speed	
4	9283	A	A jack-up with displacement of 10,000 kips has its LCG 100 feet aft of frame zero (AFO). If 200 kips are loaded at 60 feet AFO and 100 kips are discharged from 20 feet AFO, what is the new LCG?	100.0 feet	100.4 feet	100.8 feet	101.2 feet	
4	9285	A	A floating jack-up with displacement of 16,200 kips has its LCG 110.37 feet aft of frame zero (AF0). If 200 short tons are discharged from 120 feet AF0 and 400 short tons are discharged from 150 feet AF0, what is the new LCG?	108.0 feet	109.2 feet	110.4 feet	115.8 feet	
4	9287	C	What is the longitudinal shift in the center of gravity if 200 short tons is moved ten feet to port and 30 feet forward on a MODU with a displacement of 8,960 long tons?	0.20 foot	0.22 foot	0.67 foot	0.84 foot	
4	9291	B	An elevated jack-up weighs 14,000 kips. Its TCG is located 1.0 foot to starboard of the centerline. What would be the new TCG for the jack-up if the drill floor, weighing 700 kips, is skidded 10 feet to port?	9.00 feet port	0.50 foot starboard	0.50 foot port	1.00 foot port	
4	9293	B	An elevated jack-up weighs 14,000 kips. The drill floor, weighing 700 kips, is skidded 10.0 feet to starboard. The change in TCG is _____.	9.00 feet starboard	0.50 foot starboard	1.50 foot starboard	1.00 foot starboard	
4	9295	B	A jack-up 210 feet in length is level during transit. The LCF is 140 feet aft of the bow. How much weight should be applied at the bow to level the jack-up if 150 kips are loaded at the transom?	50 kips	75 kips	100 kips	200 kips	
4	9301	A	The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). Weather conditions require ballasting to survival draft. Assume that 4087 long tons of ballast are added at an average VCG of 8.32 feet. What would be the value of uncorrected KG?	51.65 feet	52.67 feet	55.15 feet	62.24 feet	
4	9303	B	When displacement increases, the free surface corrections for slack tanks _____.	increase	decrease	are directly proportional	remain unchanged	

4	9306	D	When two generators are operating in parallel, what will happen if one engine driving a generator shuts down?	The generator that's still running will motorize.	Both generators will immediately shut down.	The running generator's circuit breaker will immediately trip on overload.	The stalled generator's circuit breaker will trip on reverse power.	
4	9307	C	When a rescuer finds an electrical burn victim in the vicinity of live electrical equipment or wiring, his first step is to _____.	flush water over any burned area of the patient	apply ointment to the burned areas on the patient	get assistance to shut down electrical power in the area	remove the patient from the vicinity of the live electrical equipment or wiring	
4	9311	C	Basic emergency care for third degree electrical burn is to _____.	flood the burned area with warm water for two minutes	brush away the charred skin and wrap the burned area	cover the burned area with a clean cloth and transport the patient to a medical facility	apply ointment or spray to the burned area and wrap with a clean cloth	
4	9313	A	When a patient has an electrical burn, it is important to _____.	look for a second burn, which may have been caused by the current passing through the body	locate the nearest water source and flood the burn with water for five minutes	remove any dirt or charred skin from the area of the burn	apply ointment to the burn area and wrap with clean cloth	
4	9315	B	Since electrical burn victims may be in shock, the FIRST medical response is to check for _____.	indication of broken bones	breathing and heartbeat	symptoms of concussion	bleeding injuries	
4	9321	C	In battery charging rooms, exhaust ventilation should be provided _____.	at the lowest point	near the batteries	at the highest point	only when charging is in progress	
4	9323	B	A fuel-air mixture below the lower explosive limit is too _____.	rich to burn	lean to burn	cool to burn	dense to burn	
4	9325	B	Good housekeeping on a vessel prevents fires by _____.	allowing better access in an emergency	eliminating potential fuel sources	eliminating trip hazards	improving personnel qualifications	
4	9327	B	Accumulations of oily rags should be _____.	kept in nonmetal containers	discarded as soon as possible	cleaned thoroughly for reuse	kept in the paint locker	
4	9331	B	Paints and solvents on a vessel should be _____.	stored safely at the work site until work is completed	returned to the paint locker after each use	covered at all times to protect from ignition sources	stored in a suitable gear locker	
4	9333	B	After extinguishing a fire with CO2, it is advisable to _____.	use all CO2 available to cool the surrounding area	stand by with water or other agents	thoroughly ventilate the space of CO2	jettison all burning materials	
4	9335	A	The disadvantage of using CO2 is that the _____.	CO2 does not cool the fire	cylinders are regulated pressure vessels	C02 is not effective on class "B" fires	C02 is not effective on class "C" fires	
4	9337	A	Size I and II fire extinguishers are designated as _____.	portable	semi-portable	fixed	compact	
4	9341	D	Dry chemical extinguishers may be used on what class of fires?	A only	B only	B and C only	A, B or C as marked on the extinguisher	
4	9342	A	The ventilation system of your ship has fire dampers restrained by fusible links. Which statement is TRUE?	Fusible links must be replaced if a damper is activated.	Fusible links are tested by applying a source of heat to them.	Fusible links must be replaced at every inspection for certification.	A fusible link will automatically open after a fire is extinguished and reset the damper.	

4	9347	C	CO2 cylinders must be recharged when the weight of the charge in the cylinder is less than what percent of the stamped full weight of the charge?	80%	85%	90%	95%	
4	9351	B	Halon from extinguishers used on a class B fire, should be directed _____.	at the top of the flames	at the base of the fire near the edge	in short quick bursts	toward the upwind side of the fire	
4	9357	D	Halon extinguishers used on a class C fire should be directed at the _____.	base of the equipment	top of the equipment	power source	source of the fire	
4	9361	C	The principal personnel hazard unique to Halon extinguishers is _____.	displacement of oxygen	skin irritation	inhaling toxic vapors	eye irritation	
4	9362	C	You are releasing carbon dioxide gas (CO2) into an engine compartment to extinguish a fire. The CO2 will be most effective if the _____.	compartment is closed and ventilators are opened	compartment is left open to the air	compartment is closed and airtight	air flow to the compartment is increased with blowers	
4	9363	B	The primary function(s) of an automatic sprinkler system is(are) to _____.	extinguish the fire which triggers it	limit the spread of fire and control the amount of heat produced	protect people in the areas which have sprinkler heads	alert the crew to the fire	
4	9365	A	When flammable liquids are handled in a compartment on a vessel, the ventilation for that area should be _____.	operated continuously while vapors may be present	operated intermittently to remove vapors	available on standby for immediate use	shut down if an explosive mixture is present	
4	9367	C	A galley grease fire on the stove may be extinguished using_____.	water	foam	the range hood extinguishing system	fire dampers	
4	9371	A	Overhauling a fire in the living quarters on a vessel must include _____.	opening dead spaces to check for heat or fire	evacuation of the vessel	sounding the "all clear" signal	operation of the emergency generator	
4	9373	D	If heavy smoke is coming from the paint locker, the FIRST firefighting response should be to _____.	release the CO2 flooding system	open the door to evaluate the extent of the fire	enter and use a portable extinguisher	secure the ventilation	
4	9375	B	After extinguishing a paint locker fire using the fixed CO2 system, the next action is to have the space _____.	opened and burned material removed	left closed with vents off until all boundaries are cool	checked for oxygen content	doused with water to prevent reflash	
4	9377	D	After abandoning ship, you should deploy the sea anchor from a liferaft to _____.	keep the liferaft from capsizing	navigate against the current	keep personnel from getting seasick	stay in the general location	
4	9381	C	If the liferaft capsizes, all personnel should leave the raft and _____.	climb onto the bottom	swim away from the raft	right the raft using the righting strap	inflate the righting bag	
4	9382	A	Fire in an engine compartment is best extinguished with carbon dioxide gas (CO2) and by _____.	completely closing the compartment	closing the compartment except for the ventilators	leaving the compartment open to the air	increasing the air flow to the compartment by blowers	
4	9385	A	When personnel are lifted by a helicopter from an inflatable liferaft, the personnel on the raft should _____.	deflate the floor of the raft to reduce the danger of the raft overturning	inflate the floor of the raft to provide for additional stability	remove their life preservers to prepare for the transfer	take in the sea anchor to prevent fouling of the rescue sling	
4	9387	A	When should you use distress flares and rockets?	Only when there is a chance of their being seen by rescue vessels	At half-hour intervals	At one-hour intervals	Immediately upon abandoning the vessel	
4	9391	C	Once you have established the daily ration of drinking water in a survival situation, how should you drink it?	Small sips at regular intervals during the day	The complete daily ration at one time during the day	One-third the daily ration three times daily	Small sips only after sunset	

4	9411	D	When anchoring in an area with a soft bottom, the fluke angle of an anchor should be set at _____.	20°	30°	40°	50°	
4	9412	D	Radiation spreads a fire by _____.	transmitting the heat of a fire through the ship's metal	burning liquids flowing into another space	heated gases flowing through ventilation systems	the transfer of heat across an unobstructed space	
4	9413	B	When anchoring in an area with a hard bottom, the fluke angle of an anchor should be set at _____.	20°	30°	40°	50°	
4	9414	A	Blocking open or removing fire dampers can cause _____.	the fire to spread through the ventilation system	fixed foam systems to be ineffective	faster cooling of the fire	the accumulation of explosive gases	
4	9415	D	A solution to overcome tripping defects is an arrangement of special plates on either side of the flukes, designed to set them in the correct tripping position. These special plates are called _____.	trippers	stocks	stabilizers	palms	
4	9425	C	Which formula can be used to calculate metacentric height?	KM + GM	KM - GM	KM - KG	KB + BM	
4	9427	B	In the absence of external forces, adding weight on one side of a floating vessel causes the vessel to _____.	heel until the angle of loll is reached	list until the center of buoyancy is aligned vertically with the center of gravity	trim to the side opposite TCG until all moments are equal	decrease draft at the center of flotation	
4	9431	D	Subtracting FSCT from KGT yields _____.	BL	GMT	FSCT	KG	
4	9432	A	The color of the signal flare sent up by a submarine indicating that a torpedo has been fired in a training exercise is _____.	green	white	red	yellow	
4	9435	A	For an upright vessel, draft is the vertical distance between the keel and the _____.	waterline	freeboard deck	Plimsoll mark	amidships section	
4	9437	B	A wind has caused a difference between drafts starboard and port. This difference is _____.	list	heel	trim	flotation	
4	9441	A	The moment of a force is a measure of the _____.	turning effect of the force about a point	instantaneous value of the force	stability characteristics of the vessel	center of gravity location	
4	9443	B	The magnitude of a moment is the product of the force and _____.	time	lever arm	displacement	angle of inclination	
4	9445	A	The difference between the height of the metacenter and the height of the center of gravity is known as the _____.	metacentric height	height of the righting arm	fore and aft perpendicular	height of the center of buoyancy	
4	9447	C	When initial stability applies, the height of the center of gravity plus the metacentric height equals the _____.	free surface moments	righting arm	height of the metacenter	corrected height of the center of gravity	
4	9451	A	Initial stability is indicated by _____.	GM	KM	Deck load	Maximum allowed KG	
4	9453	A	At all angles of inclination, the metacenter is _____.	vertically above the center of buoyancy	vertically above the center of gravity	at the intersection of the upright vertical centerline and the line of action of the buoyant force	at the geometric center of the underwater volume	
4	9454	D	If water is rising in the bilge of a lifeboat, you should FIRST _____.	abandon the survival craft	check for cracks in the hull	shift all personnel to the stern	check the bilge drain plug	
4	9455	A	The original equilibrium position is stable when _____.	metacentric height is positive	metacentric radius is positive	KG exceeds maximum allowable limits	free surfaces are excessive	

4	9457	D	The center of buoyancy is located at the _____.	geometric center of the waterplane area	intersection of the vertical centerline and line of action of the buoyant force	center of gravity of the vessel corrected for free surface effects	geometric center of the displaced volume	
4	9463	B	The value of the righting arm at an angle of loll is _____.	negative	zero	positive	equal to GM	
4	9465	B	When inclined to an angle of list, the value of the righting arm is _____.	negative	zero	positive	maximum	
4	9467	B	When inclined to an angle of list, the value of the righting moment is _____.	negative	zero	positive	maximum	
4	9471	A	What is used as an indicator of initial stability?	GM	KG	KM	GZ	
4	9473	A	What is the stability term for the distance from the center of gravity (G) to the Metacenter (M), when small-angle stability applies?	metacentric height	metacentric radius	height of the metacenter	righting arm	
4	9477	D	The water in which a vessel floats provides vertical upward support. The point through which this support is assumed to act is known as the center of _____.	effort	flotation	gravity	buoyancy	
4	9481	B	The difference between the initial trim and the trim after loading is known as _____.	trim	change of trim	final trim	change of draft	
4	9483	B	A tank which is NOT completely full or empty is called _____.	pressed	slack	inertial	elemental	
4	9485	B	The difference between the starboard and port drafts due to wind or seas is called _____.	list	heel	trim	flotation	
4	9487	D	The geometric center of the underwater volume of a floating vessel is the center of _____.	hydrodynamic forces	flotation	gravity	buoyancy	
4	9491	D	The difference between the height of the metacenter and the height of the center of gravity is _____.	KB	KG	KM	GM	
4	9493	B	On a vessel, multiplying a load's weight by the distance of the load's center of gravity above the baseline results in a(n) _____.	transverse moment	vertical moment	righting moment	inclining moment	
4	9495	A	Reducing the liquid free surfaces in a vessel reduces the _____.	roll period	metacentric height	waterplane area	vessel's draft	
4	9497	B	Stability is determined principally by the location of the point of application of two forces: the upward-acting buoyant force and the _____.	upward-acting weight force	downward-acting weight force	downward-acting buoyant force	environmental force	
4	9501	C	Stability is determined principally by the location of the point of application of two forces: the downward-acting gravity force and the _____.	upward-acting weight force	downward-acting weight force	upward-acting buoyant force	environmental force	
4	9503	C	Stability is determined principally by the location of two points in a vessel: the center of buoyancy and the _____.	metacenter	geometric center of the waterplane area	center of gravity	center of flotation	
4	9505	D	With no environmental forces acting on the vessel, the center of gravity of an inclined vessel is vertically aligned with the _____.	longitudinal centerline	center of flotation	original vertical centerline	metacenter	
4	9507	D	With no environmental forces, the center of gravity of an inclined vessel is vertically aligned with the _____.	longitudinal centerline	center of flotation	original vertical centerline	center of buoyancy	
4	9511	A	In the absence of external forces, the center of buoyancy of an inclined vessel is vertically aligned directly below the _____.	center of gravity	amidships station	center of flotation	geometric center of the waterplane area	

4	9513	B	In the presence of external forces, the center of buoyancy of an inclined vessel is vertically aligned with the _____.	center of gravity	metacenter	center of flotation	keel	
4	9515	B	With no environmental forces, the center of gravity of an inclined vessel is vertically aligned directly above the _____.	longitudinal centerline	center of buoyancy	original vertical centerline	center of flotation	
4	9517	B	Aboard a vessel, dividing the sum of the transverse moments by the total weight yields the vessel's _____.	vertical moments	transverse position of the center of gravity	inclining moments	righting moments	
4	9521	A	Aboard a vessel, dividing the sum of the vertical moments by the total weight yields the vessel's _____.	height of the center of gravity	vertical moments	righting moments	inclining moments	
4	9523	B	When the height of the metacenter is the same as the height of the center of gravity, the upright equilibrium position is _____.	stable	neutral	unstable	negative	
4	9525	A	When the height of the metacenter is greater than the height of the center of gravity a vessel has which type of stability?	Stable	Neutral	Unstable	Negative	
4	9527	C	When the height of the metacenter is less than the height of the center of gravity, a vessel has which type of stability?	Stable	Neutral	Negative	Positive	
4	9528	D	You are in Inland Waters of the United States. You may discharge overboard _____.	bottles	metal	dunnage	None of the above	
4	9531	D	When the height of the metacenter is greater than the height of the center of gravity, the upright equilibrium position is stable and stability is _____.	unstable	neutral	negative	positive	
4	9533	A	Unstable equilibrium exists at small angles of inclination when _____.	G is above M	G is off the centerline	B is off the centerline	B is above G	
4	9535	D	When stability of a vessel is neutral, the value of GM _____.	only depends on the height of the center of gravity	only depends on the height of the metacenter	is greater when G is low	is zero	
4	9537	C	When the height of the metacenter is less than the height of the center of gravity of a vessel, the upright equilibrium position is _____.	stable	neutral	unstable	negative	
4	9541	B	When the height of the metacenter is the same as the height of the center of gravity of a vessel, the upright equilibrium position is _____.	stable	neutral	unstable	negative	
4	9543	C	Stable equilibrium for a vessel means that the metacenter is _____.	at a lower level than the baseline	on the longitudinal centerline	higher than the center of gravity	at amidships	
4	9545	A	An unstable upright equilibrium position on a vessel means that the metacenter is _____.	lower than the center of gravity	at the same height as the center of gravity	higher than the baseline	on the longitudinal centerline	
4	9547	B	A neutral equilibrium position for a vessel means that the metacenter is _____.	lower than the keel	at the same height as the center of gravity	exactly at midships	at the center of the waterplane area	
4	9551	C	When the height of the metacenter is less than the height of the center of gravity, a vessel has which type of stability?	Stable	Neutral	Unstable	Positive	
4	9553	A	When the height of the metacenter is greater than the height of the center of gravity, a vessel is in _____.	stable equilibrium	neutral equilibrium	unstable equilibrium	negative equilibrium	
4	9557	C	Longitudinal moments are obtained by multiplying a vessel's weight and its _____.	VCG or KG	LCB	LCG	TCG	

4	9561	A	Vertical moments are obtained by multiplying a vessel's weight and its _____.	VCG or KG	LCB	LCG	TCG	
4	9562	B	The most likely location for a liquid cargo fire to occur on a tanker would be _____.	the midships house	in the pumproom	at the vent header	at the main deck manifold	
4	9563	B	The KG of a vessel is found by dividing the displacement into the _____.	height of the center of gravity of the vessel	sum of the vertical moments of the vessel	sum of the free surface moments of the vessel	sum of the longitudinal moments of the vessel	
4	9564	C	Automatic fire dampers in ventilation systems are operated by use of _____.	remotely operated valves	C02 system pressure switches	fusible links	heat or smoke detectors	
4	9565	C	The LCG of a vessel may be found by dividing displacement into the _____.	longitudinal center of gravity of the vessel	sum of the vertical moments of the vessel	sum of the longitudinal moments of the vessel	longitudinal baseline of the vessel	
4	9567	C	The correction to KG for transverse free surface effects may be found by dividing the vessel's displacement into the _____.	transverse free surface correction for the vessel	sum of the vertical moments of the vessel	sum of the transverse free surface moments of the vessel	transverse baseline of the vessel	
4	9571	C	The correction to KG for longitudinal free surface effects for a vessel can be found by dividing the vessel's displacement into the _____.	transverse free surface correction for the vessel	sum of the vertical moments of the vessel	sum of the longitudinal free surface moments of the vessel	longitudinal centerline of the vessel	
4	9573	A	A floating vessel will behave as if all of its weight is acting downward through the _____.	center of gravity	center of buoyancy	center of flotation	metacenter	
4	9575	A	While preloading, the COASTAL DRILLER has a total weight of 21,401 kips. The LM are 2,560,416 ft-kips, and the TM are 6,206 ft-kips. What is the bow leg reaction?	7,099 kips	7,134 kips	7,151 kips	7,203 kips	
4	9577	B	When is the density of the water required to be logged in the logbook of a MODU?	Any time the vessel moves from water of one density into waters of a different density	Prior to getting underway when the vessel is floating in fresh or brackish water	Only when the vessel moves from fresh water into salt water	The density of the water is not required to be logged in the unofficial logbook	
4	9581	A	The C02 flooding system is actuated by a sequence of steps which are _____.	break glass, pull valve, break glass, pull cylinder control	sound evacuation alarm, pull handle	open bypass valve, break glass, pull handle	open stop valve, open control valve, trip alarm	
4	9583	A	Each person on a MODU carrying immersion suits must wear the immersion suit in a boat drill, or participate in a drill which includes donning the suit and being instructed in its use at least once every _____.	month	2 months	3 months	6 months	
4	9585	A	While retrieving the survival craft, the engine should be stopped _____.	when the craft clears the water	when the cable has been attached	on approach to the platform	at the embarkation deck	
4	9587	A	The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). What is the new transverse free surface correction (FSCT) if the entire contents of Salt Water Ballast Tanks 1P and 1S are discharged?	0.46 foot	0.71 foot	1.08 feet	1.44 feet	
4	9591	B	The DEEP DRILLER is loaded as shown in the Sample Load Form #2 (Ballasting to Survival). What is the new draft if all the bulk materials are discharged?	36.23 feet	44.27 feet	45.73 feet	53.77 feet	
4	9593	D	A semisubmersible floating in sea water displaces 717,500 cubic feet. What is the displacement?	11,211 long tons	11,498 long tons	19,977 long tons	20,500 long tons	
4	9595	A	A non-symmetrical tank aboard a MODU contains 390 tons of ballast at a VCG of 9.85 feet. Ballast weighing 250 tons and a VCG of 12.0 feet is discharged. The vertical moments for the remaining ballast is _____.	842 ft-long tons	3,000 ft-long tons	3,842 ft-long tons	6,842 ft-long tons	

4	9597	D	The DEEP DRILLER is loaded as shown in the Sample Load Form #5 (Survival), when an unexpected, slowly increasing port list and bow down trim occurs. A leak in C1P is found. By deballasting from ballast tanks 2P and 3P, the inclination slowly decreases. The increase in the longitudinal free surface correction is _____.	0.90 foot	0.83 foot	0.57 foot	0.49 foot	
4	9601	C	The DEEP DRILLER is loaded as shown in the Sample Load Form #5 (Survival) when an unexpected slowly increasing starboard list and bow down trim occurs. A leak in 1S is found. By deballasting from ballast tanks 2S and 3S, the inclination slowly decreases. The increase in the longitudinal free surface correction is _____.	1.25 feet	0.90 foot	0.83 foot	0.34 foot	
4	9603	B	During the passage of a severe storm the maximum vertical moments, including free surface moments, permitted on the DEEP DRILLER at survival draft is _____.	998,942 ft-tons	996,522 ft-tons	990,430 ft-tons	889,555 ft-tons	
4	9604	B	Except in rare cases, it is impossible to extinguish a shipboard fire by _____.	removing the oxygen	removing the fuel	interrupting the chain reaction	removing the heat	
4	9605	C	The COASTAL DRILLER, in transit with winds less than 70 knots, has a draft of 10 feet 8 inches. The VM are 541,257 ft-kips, FSML are 32,000 ft-kips, and FSMT are 24,000 ft-kips. The margin on the maximum allowable KG is _____.	-2.3 feet	0.0 feet	23.7 feet	26.0 feet	
4	9606	C	You are fighting a Class B fire with a portable dry chemical extinguisher. The discharge should be directed _____.	over the top of the fire	to bank off a bulkhead onto the fire	at the seat of the fire, starting at the near edge	at the main body of the fire	
4	9607	A	There is a fire aft aboard your vessel. To help fight the fire, you should _____.	head the bow into the wind and decrease speed	put the wind off either beam	put the stern into the wind and increase speed	put the stern into the wind and decrease speed	
4	9608	C	On small passenger vessels how many supply and exhaust ducts are required in each enclosed space containing gasoline powered machinery or gasoline fuel tanks?	4 of each	3 of each	2 of each	1 of each	
4	9611	B	A crew member reports that the high-pressure alarm light of a low-pressure CO2 fixed fire extinguishing system is illuminated. The most probable cause of this condition would be that _____.	an air leak has developed in the tank	the tank cooling system has malfunctioned	the pilot cylinder discharge valve is leaking	an excessive amount of insulation has been installed on the tank and piping	
4	9612	A	What would be a major consequence of the refrigeration system for a low-pressure CO2 fixed fire extinguishing system remaining inoperable?	The entire charge might eventually be lost due to CO2 venting out through the relief valve.	Liquid CO2 would vent out through the safety valve as the temperature increases.	Excessive condensation inside the tank would freeze, causing a restriction in the discharge piping.	The warmed charge of CO2 would not be effective in extinguishing a fire.	
4	9613	D	When a ship's low-pressure CO2 fixed fire extinguishing system is activated from a remote location, what determines the quantity of CO2 being released into a selected space?	The number of discharge nozzles in the space determines the quantity released.	The discharge will continue until the temperature of the space returns to its normal ambient temperature.	The main CO2 tank is partitioned into sections that are individually designated for each of the protected spaces.	A pneumatic timer controls each discharge selector valve, and is preset for each space.	

4	9614	C	The normal designed CO2 storage tank temperature and pressure associated with a ship's low-pressure CO2 fixed fire extinguishing system is approximately _____.	0°F at 50 PSI	70°F at 150 PSI	0°F at 300 PSI	70°Fat 500 PSI	
4	9621	B	You notice smoke coming from an open laundry room doorway. After activating the fire alarm, which of the following would you do FIRST?	Protect the adjacent spaces on the same deck as the laundry room.	Locate and use the nearest portable extinguisher, if conditions permit.	Protect the compartment directly above the laundry room.	Go to the nearest fire station and break out the hose.	
4	9622	A	You notice smoke coming from an open laundry room doorway. After activating the fire alarm, which of the following would you do FIRST?	Attempt to determine what is burning.	Acquire the nearest self contained breathing apparatus.	Break out the nearest fire hose.	Wait for the fire team to arrive and assist as directed.	
4	9623	D	You detect an odor of burning electrical insulation and then notice smoke coming from an open laundry room doorway. After activating the fire alarm, which of the following is the LEAST likely of your next actions?	Close the door to the room.	Locate the nearest CO2 or dry chemical extinguisher.	Secure power to the washers and dryers.	Break out the nearest fire hose.	
4	9624	D	You detect an odor of burning cotton fabric and then see smoke coming from the top of an open laundry room doorway. After activating the fire alarm, you might do any of the following next, EXCEPT _____.	begin breaking out the nearest fire hose	secure ventilation to the room	close the door to the room	acquire the nearest self contained breathing apparatus	
4	9631	B	Fixed carbon dioxide extinguishing systems, for machinery spaces that are normally manned, are actuated by one control to open the stop valve in the line leading to the space, and _____.	the same control releasing the CO2	a separate control to release the CO2	two separate controls to release the CO2	three separate controls to release the CO2	
4	9632	B	In a fixed carbon dioxide extinguishing system for a machinery space, designed WITH a stop valve in the line leading to the protected space, the flow of CO2 is established by actuating _____.	one control	two controls	three controls	none of the above	
4	9633	D	Which of the following statements is true concerning the control activators, i.e., pull-handles, push-buttons or levers, for a space protected by a CO2 fixed fire extinguishing system?	Only one control activator is required for discharge piping systems designed without a stop valve.	Two control activators are required when a stop valve is installed in the main discharge line to a space.	An alarm must sound for at least 20 seconds before CO2 is released into a space that is likely to be occupied.	All of the above	
4	9634	A	A fixed carbon dioxide extinguishing system for a machinery space, designed WITHOUT a stop valve in the line leading to the protected space, is actuated by _____.	one control	two controls	three controls	none of the above	
4	9641	B	The carbon dioxide cylinders of a fixed fire extinguishing system may be located inside the protected space, if the quantity of CO2 required to protect that space is not more than _____.	1 long ton	300 pounds	900 pounds	1,500 pounds	
4	9642	A	The carbon dioxide cylinders of a fixed fire extinguishing system may be located inside the protected space, if the quantity of CO2 required to protect that space is not more than _____.	300 pounds	400 pounds	500 pounds	600 pounds	
4	9643	D	The carbon dioxide cylinders of a fixed fire extinguishing system may be located inside the protected space, if the quantity of CO2 required to protect that space is not more than _____.	1,000 pounds	750 pounds	500 pounds	300 pounds	

4	9651	A	In a fixed CO2 fire extinguishing system where pressure from pilot cylinders is used to release the CO2 from the main bank of cylinders, the number of required pilot cylinders shall be at least _____.	2	3	4	6	
4	9652	B	When pilot cylinder pressure is used as a means to release the CO2 from a fixed fire extinguishing system consisting of four storage cylinders, the number of pilot cylinders shall be at least _____.	1	2	3	4	
4	9661	D	In a fixed CO2 extinguishing system where provision is made for the release of CO2 by operation of a remote control, provision shall also be made for releasing the CO2 _____.	from inside the engine room	from the bridge	from the cargo control station	at the cylinder location	
4	9662	C	Which of the following statements is FALSE, concerning the regulations pertaining to the cylinder room of a fixed CO2 fire extinguishing system?	The compartment must be properly ventilated.	The temperature of the room should never exceed 130°F.	The door must be kept unlocked.	The compartment shall be clearly marked and identifiable.	
4	9671	A	When fighting a large fire on your vessel and attacking it from ABOVE the space on fire, it is important to _____.	rotate personnel, due to heat stress	station personnel on the hot deck immediately above the fire	stay low by crouching or kneeling on deck	All of the above	
4	9672	B	When fighting a large fire on your vessel and attacking it from ABOVE the space on fire, it is important to _____.	not rotate personnel, as the consistent attack can extinguish the fire quickly.	stand erect, to avoid the heat of the deck	station personnel on the hot deck, immediately above the fire, to observe for its potential spread	All of the above	
4	9673	D	When fighting a large fire on your vessel and attacking it from ABOVE the space on fire, it is important to _____.	rotate personnel, due to heat stress	stand erect, to avoid the heat of the deck	cool the deck directly above the space on fire	All of the above	
4	9681	C	What is the minimum period of time that the air supply for a self-contained breathing apparatus is required to last?	10 minutes	15 minutes	30 minutes	45 minutes	
4	9682	B	What is the minimum period of time that the air supply for a self-contained breathing apparatus is required to last?	15 minutes	30 minutes	45 minutes	60 minutes	
4	9700	D	The regulations governing the sleeping accommodations of a cargo vessel are found in _____.	46 CFR subchapter S	46 CFR subchapter T	46 CFR subchapter B	46 CFR subchapter I	
4	9701	A	Which of the following statements is/are TRUE in regard to Ro-Ro vessels' spaces that are "specially suitable for vehicles"?	The spaces shall be fitted with an approved fire or smoke detecting system.	The spaces shall have designated smoking areas.	The spaces are prohibited from being fitted with fixed CO2 fire extinguishing systems.	All of the above	
4	9702	B	Which of the following is/are NOT required on Ro-Ro vessels, regarding spaces that are "specially suitable for vehicles"?	The spaces shall be fitted with an approved fire or smoke detecting system.	The spaces shall have designated smoking areas.	The spaces shall be fitted with an approved fixed fire extinguishing system.	All of the above	
4	9703	C	Which of the following statements is/are FALSE in regard to Ro-Ro vessels' spaces that are "specially suitable for vehicles"?	The spaces shall be fitted with an approved fire or smoke detecting system.	The spaces shall be fitted with an approved fixed fire extinguishing system.	The installation of a water sprinkler extinguishing system is prohibited.	All of the above	

4	9704	D	Which of the following statements is/are TRUE in regard to Ro-Ro vessels' spaces which are "specially suitable for vehicles"?	The spaces shall be fitted with an approved fire or smoke detecting system.	The spaces shall be fitted with an approved fixed fire extinguishing system.	The Commandant may permit the installation of an approved water sprinkler extinguishing system.	All of the above	
4	9705	A	Which of the following statements is/are FALSE in regard to Ro-Ro vessels' spaces that are "specially suitable for vehicles"?	The spaces shall NOT be fitted with a flame detecting system.	The spaces shall be fitted with an approved fixed CO2 fire extinguishing system.	As an alternative to a fixed CO2 system, the Commandant may permit a water sprinkler system.	All of the above	
4	9706	B	Which of the following statements is/are FALSE in regard to Ro-Ro vessels' spaces that are "specially suitable for vehicles"?	The spaces shall be fitted with an approved fire or smoke detecting system.	The spaces shall NOT be fitted with fixed CO2 fire extinguishing systems.	The Commandant may permit the installation of an approved water sprinkler extinguishing system.	All of the above	
4	69354	C	Which casualty involving a mobile offshore drilling unit would require a report to be filed?	Damage to property of $20,000	An injury treated by first aid	An occurrence materially and adversely affecting the vessel's fitness for service	All of the above	