

U.S.C.G. Merchant Marine Exam
Master of Unlimited Tonnage
Q302 Deck General
(Sample Examination)

Choose the best answer to the following Multiple Choice questions.

1. If you are bunkering and 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 _____.
- (A) remain constant
 - (B) decrease
 - (C) stop
 - (D) increase

If choice D is selected set score to 1.

2. The greatest horizontal stress between the heads of the booms in the yard and stay rig occurs when the load is in such a position that the _____.
- (A) stay fall is at a greater angle to the horizontal than the yard fall
 - (B) falls are at an equal angle to the horizontal
 - (C) stay fall is vertical
 - (D) yard fall is at a greater angle to the horizontal than the stay fall

If choice B is selected set score to 1.

3. According to U.S. regulations, which of the following describes the declaration of inspection?
- (A) An annual report submitted by vessel personnel to the Coast Guard declaring that all transfer equipment has been inspected
 - (B) A document signed by vessel and shore facility persons-in-charge declaring that all transfer requirements have been met
 - (C) A paper issued by the Coast Guard marine inspector which allows you to conduct a transfer operation
 - (D) An application you must complete and submit to the Coast Guard to have an inspector visit your vessel

If choice B is selected set score to 1.

4. Which part of the patent anchor performs the same function as the stock of an old fashioned anchor; that is, forces the flukes to dig in?
- (A) Bill or pea
 - (B) Arm
 - (C) Shank
 - (D) Tripping Palm

If choice D is selected set score to 1.

5. To safely anchor a vessel there must be sufficient "scope" in the anchor cable. Which BEST defines the term scope?
- (A) The ratio of the weight of cable to the weight of vessel
 - (B) The ratio of the length of cable to the depth of water
 - (C) The ratio of the length of anchor to the depth of water
 - (D) The ratio of the weight of cable to the weight of the anchor

If choice B is selected set score to 1.

6. You are 15 feet off a pier and docking a vessel using only a bow breast line and stern breast line. Once the slack is out of both lines you begin to haul in on the bow breast line. What is the effect on the vessel?
- (A) The bow and stern come in equally closer toward the pier.
 - (B) The stern will come in and the bow will remain the same distance off the pier.
 - (C) The bow will come in and the stern will go out.
 - (D) The bow will come in and the stern will remain the same distance off the pier.

If choice D is selected set score to 1.

7. Which is a negotiable document?
- (A) Receiving Report
 - (B) Cargo Manifest
 - (C) Export Declaration
 - (D) Bill of Lading

If choice D is selected set score to 1.

8. Sweat damage will occur in a cargo hold containing cased machinery when the _____.
- (A) outside air temperature is colder than the temperature of the cargo
 - (B) air temperature of the hold is higher than the temperature of the outside air
 - (C) dew point of the hold is higher than the temperature of the ship's skin
 - (D) dew point of the outside air is lower than the temperature of the cargo

If choice C is selected set score to 1.

9. In order to reduce the accumulation of static electricity while loading petroleum products, you should _____.
- (A) increase the air flow into the tank
 - (B) start to load slowly
 - (C) use the overall method of loading only
 - (D) start to load at maximum pressure

If choice B is selected set score to 1.

10. If there is a discrepancy in the cargo totals, between the cargo onboard the vessel and the cargo listed in the cargo manifest, the more accurate account of cargo totals can be found in the _____.

- (A) Portage Bill
- (B) Charter Party
- (C) Bill of Lading
- (D) Notice of Readiness

If choice C is selected set score to 1.

11. How does the effect known as "bank suction" act on a single-screw vessel proceeding along a narrow channel?

- (A) It pulls the bow toward the bank.
- (B) It pushes the entire vessel away from the bank.
- (C) It pulls the stern toward the bank.
- (D) It heels the vessel toward the bank.

If choice C is selected set score to 1.

12. U.S. regulations require all tankships of 150 GT and above and all other ships of 400 GT and above, to prepare and maintain which of the following?

- (A) A USCG approved vapor recovery procedures plan
- (B) A USCG approved shipboard oil pollution emergency plan
- (C) A USCG approved synthetic plastic discharge plan
- (D) A USCG approved oil discharge plan

If choice B is selected set score to 1.

13. After casting off moorings at a mooring buoy in calm weather, which action should you take?

- (A) Go half ahead on the engines and put the rudder hard right
- (B) Back away a few lengths to clear the buoy and then go ahead on the engines
- (C) Go full ahead on the engine(s)
- (D) Go half ahead on the engines and pass upstream of the buoy

If choice B is selected set score to 1.

14. Battens are fitted in cargo holds across the frames of the vessel from the turn of the bilge upward. The purpose of these cargo battens is _____.

- (A) to provide fittings to which cargo lashings may be secured
- (B) to support the dunnage floors which are laid down between tiers of cargo
- (C) for securing a snatch block when snaking cargo into the wings of the hold
- (D) to prevent cargo from coming in contact with the vessel's frames or shell plating

If choice D is selected set score to 1.

15. Which of the following statements is/are TRUE in regard to Ro-Ro vessels' spaces that are "specially suitable for vehicles"?

- (A) The spaces are prohibited from being fitted with fixed CO2 fire extinguishing systems.
- (B) The spaces shall have designated smoking areas.
- (C) The spaces shall be fitted with an approved fire or smoke detecting system.
- (D) All of the above

If choice C is selected set score to 1.

16. Which is the length of a standard "shot" of anchor chain?

- (A) 12 fathoms
- (B) 15 fathoms
- (C) 18 fathoms
- (D) 20 fathoms

If choice B is selected set score to 1.

17. You are the credentialed operator of a 100 GT towing vessel making coastwise runs. Which of the following must you do whenever a crew member is discharged from your vessel?

- (A) retain the crew member's Certificate of Discharge onboard
- (B) retain the crew member's Continuous Discharge Book onboard
- (C) issue a Certificate of Discharge and make an entry in his Continuous Discharge Book
- (D) issue a Certificate of Discharge or make an entry in his Continuous Discharge Book

If choice D is selected set score to 1.

18. What is an explosion hazard when exposed to flame?

- (A) Nitrous oxide
- (B) Toluene
- (C) Formic acid
- (D) Tallow

If choice B is selected set score to 1.

19. The tankship Northland is loaded as shown in table BL-0003 below. Use the salmon colored pages in the Stability Data Reference to determine the sagging numeral.

LONGITUDINAL BENDING STRESSES (PSI)

DESCRIPTION

1. FORE PEAK	0
2. DEEP TANK P/S	0
3. FWD STORES	6
4. FWD BUNKERS	1600
5. FWD COFFERDAM	0
6. #1 CARGO TANK	5229
7. #2 CARGO TANK	5193
8. #3 CARGO TANK	4229
9. #4 CARGO TANK	5116
10. BRIDGE CREW	3
11. BRIDGE STORES	12
12. BRIDGE F.W.	15
13. #5 CARGO TANK	3956
14. #6 BALLAST TANK	1628
15. #7 CARGO/BALLAST TANK	5929
16. #8 CARGO/BALLAST TANK	6012
17. #9 CARGO/BALLAST TANK	0
18. #10 CARGO TANK	5417
19. #11 CARGO TANK	3257
20. AFT COFFERDAM	0
21. AFT BUNKERS	900
22. AFT SETTLERS	325
23. DISTILLED WATER	56
24. AFT STORES	75
25. AFT CREW	7
26. F.W. AFT	57
27. AFT PEAK	375

- (A) 71.07 numeral
- (B) 74.95 numeral
- (C) 77.56 numeral
- (D) 78.29 numeral

If choice D is selected set score to 1.

20. Who cannot commit the crime of barratry?

- (A) Master
- (B) Ship's officer(s)
- (C) Ship owner
- (D) Ship's unlicensed crewmember(s)

If choice C is selected set score to 1.

21. Which statement is TRUE concerning the vessel's slipstream?

- (A) Its velocity is the same as that of the wake.
- (B) It has no effect on the steering of the vessel.
- (C) The propeller gives it a helical motion.
- (D) It has no effect on the rudder when the helm is amidships.

If choice C is selected set score to 1.

22. Your vessel is going from a warm climate to a cold climate with a hygroscopic cargo. Which statement is TRUE?

- (A) You should ventilate; there is little danger of ship sweat, but a possibility of cargo sweat.
- (B) You must ventilate constantly and vigorously to combat ship sweat.
- (C) There is danger of heavy cargo sweat if you ventilate.
- (D) There is little danger of any sweat problem.

If choice B is selected set score to 1.

23. The effect known as "bank cushion" acts in which of the following ways on a single-screw vessel proceeding along a narrow channel?

- (A) It forces the stern away from the bank.
- (B) It heels the vessel toward the bank.
- (C) It forces the entire vessel away from the bank.
- (D) It forces the bow away from the bank.

If choice D is selected set score to 1.

24. Your vessel is being assisted through an ice field in Thunder Bay by the Canadian Coast Guard icebreaker Alexander Henry. The starboard lookout reports that the icebreaker has run up the code flag "N" (November). Which action should you take?

- (A) Reverse your engines
- (B) Stop your vessel instantly
- (C) Reduce speed
- (D) Stop your engines

If choice D is selected set score to 1.

25. Segregation of cargoes refers to _____.

- (A) separating cargoes by destination
- (B) listing the cargoes in order of their flammability
- (C) separating cargoes so that the inherent characteristics of one cannot damage the other
- (D) classifying cargoes according to their toxicity

If choice C is selected set score to 1.

26. Why must a sufficient amount of chain must be veered when anchoring a vessel?

- (A) To ensure that there is more chain out than there is in the chain locker
- (B) To ensure the vessel has enough room to swing while at anchor
- (C) To ensure there is a sufficient scope of chain to keep the anchor on the bottom
- (D) To ensure the anchor flukes bite into the ocean bottom

If choice D is selected set score to 1.

27. On a vessel, constructed after 1970, carrying grades A, B, C or D cargoes, what can NOT segregate enclosed spaces where sources of vapor ignition are normally present from cargo tanks?

- (A) pump rooms
- (B) tanks used to carry liquids having a flash point of 150°F or above
- (C) cofferdams
- (D) galleys

If choice D is selected set score to 1.

28. According to the Chemical Data Guide, 1,3 - pentadiene possesses which characteristic?

- (A) Pale yellow liquid, strong odor
- (B) Colorless liquid, faint odor
- (C) Straw-colored liquid, sweet-odor
- (D) Colorless liquid, mild aromatic odor

If choice B is selected set score to 1.

29. When operating in an area where sea ice and icebergs are present, which statement is TRUE?

- (A) Both icebergs and sea ice will move in approximately the same direction and at the same speed.
- (B) Icebergs and sea ice will move in the same direction, but at different speeds due to the sail effect of the berg.
- (C) Icebergs and sea ice will move in the same direction, but the iceberg will move slower because of its underwater bulk.
- (D) Icebergs may travel in a direction many degrees different from the sea ice.

If choice D is selected set score to 1.

30. Instructions to the crew in the use of all the ship's lifesaving equipment shall be completed _____.

- (A) within one week of sailing
- (B) within any two month period
- (C) in one month and repeated quarterly
- (D) before sailing

If choice B is selected set score to 1.

31. You are docking a vessel. Which statement is TRUE?

- (A) You should go in against the current
- (B) You should approach the dock at a 90° angle
- (C) You should pass a mooring line to the dock and let the crew pull the vessel to
- (D) You should go in with the current

If choice A is selected set score to 1.

32. You are on a 30,000 DWT tankship engaged in trade to another country signatory to MARPOL 73/78. Which statement is TRUE?

- (A) The Certificate of Inspection is prima facie evidence of compliance with MARPOL 73/78.
- (B) AN IOPP Certificate is renewed at each inspection for certification.
- (C) The IOPP Certificate is valid for 5 years.
- (D) An IOPP Certificate is invalid if the ship carries cargoes outside the classes authorized thereon.

If choice C is selected set score to 1.

33. A marine radar system for surface navigation must be fitted on all ocean or coastwise vessels of over which tonnage?

- (A) 1,400 GT
- (B) 1,500 GT
- (C) 1,600 GT
- (D) 1,700 GT

If choice C is selected set score to 1.

34. Which statement about the carriage of coal is true?

- (A) Wet coal is more liable to spontaneous heating than dry coal.
- (B) Coal absorbs nitrogen from the air which reacts with methane and causes spontaneous heating.
- (C) Most problems with spontaneous combustion will occur within 72 hours of loading and after that the risk decreases.
- (D) Freshly worked coal is more dangerous than weathered coal.

If choice D is selected set score to 1.

35. Which is TRUE before a Master relieves a Pilot of the conn?

- (A) The Master should foresee any danger to the vessel on the present course
- (B) The Master should agree to sign a release of liability form
- (C) The vessel must be in extremis
- (D) The Master must first request the Pilot to take corrective action

If choice A is selected set score to 1.

36. The agency most concerned with a stowaway is _____.

- (A) Customs
- (B) Immigration
- (C) U.S.D.A.
- (D) Public Health

If choice B is selected set score to 1.

37. You have orders to load cargoes of carbon disulfide, diisopropylamine and pyridine on your multi-product tankship. Which statement is true?

- (A) Pyridine must be separated from carbon disulfide by two barriers (cofferdams, voids, empty tanks, etc.).
- (B) Pyridine and diisopropylamine may not be carried in tanks having a common header vent.
- (C) A tank of diisopropylamine may be used to separate a tank of pyridine from a tank of carbon disulfide.
- (D) Carbon disulfide may be carried in NOS. 1 and 2 center tanks and diisopropylamine in NOS. 1 and 2 wing tanks.

If choice B is selected set score to 1.

38. As a general rule, how will your vessel lie when it is drifting in a locale where there is no current?

- (A) The bow to the wind
- (B) The beam to the wind
- (C) The stern to the wind
- (D) With the wind on the quarter

If choice B is selected set score to 1.

39. What is NOT a basic shiphandling rule for navigating in ice concentrations on the Great Lakes?

- (A) Excessive speed means ice damage.
- (B) Transit ice along pressure ridges when possible.
- (C) Work with the ice movement, not against.
- (D) Keep moving - even very slowly, but keep moving.

If choice B is selected set score to 1.

40. Which term(s) are in the category of "oil" as used in the Oil Pollution Regulations?

- (A) Fuel oil
- (B) Oil refuse
- (C) Sludge
- (D) All of the above

If choice D is selected set score to 1.

41. Which statement is true regarding the forecastle card?

- (A) advises the crew of the conditions of employment
- (B) is also known as a Merchant Mariner's Document
- (C) is posted in the crews quarters and lists the emergency stations
- (D) designates the quarters a seaman will occupy during a voyage

If choice A is selected set score to 1.

42. You have orders to load cargoes of carbon disulfide, diisopropylamine and pyridine on your multi-product tankship. Which statement is TRUE?

- (A) A tank of carbon disulfide may be used to separate a tank of pyridine from a tank of diisopropylamine.
- (B) Pyridine and diisopropylamine may be carried in tanks having a common header vent.
- (C) Diisopropylamine must be separated from carbon disulfide by two barriers (cofferdams, voids, empty tanks, etc.)
- (D) Carbon disulfide may be carried in NOS. 1 and 2 center tanks and diisopropylamine in NOS. 1 and 2 wing tanks.

If choice C is selected set score to 1.

43. According to U.S. regulations, access to a cargo pumproom in a tank vessel carrying grades C or D liquid cargo must be which of the following?

- (A) from the open deck
- (B) only from enclosed areas free from sources of vapor ignition
- (C) from areas equipped with power ventilation
- (D) from within the vessel

If choice A is selected set score to 1.

44. The latch of a safety hook _____.

- (A) increases the strength of the hook
- (B) prevents the sling ring from coming out of the hook if there is a strain on the sling ring
- (C) prevents the sling ring from coming out of the hook if the strain is abruptly eased
- (D) All of the above

If choice C is selected set score to 1.

45. A cargo of 10,000 barrels of gasoline is loaded at a temperature of 90°F, and a cargo temperature of 55°F, is expected on this voyage. It has a coefficient of expansion of .0006. How many barrels would you expect to discharge at your destination?

- (A) 9790
- (B) 9994
- (C) 10210
- (D) 10410

If choice A is selected set score to 1.

46. In accordance with U.S. regulations which of the following is the proper label name for a class 6.2 substance?

- (A) Poison
- (B) Infectious substance
- (C) Corrosive substance
- (D) Oxidizer

If choice B is selected set score to 1.

47. The trim and stability booklet must be approved by the _____.

- (A) International Maritime Organization
- (B) National Cargo Bureau
- (C) Society of Naval Architects and Marine Engineers
- (D) United States Coast Guard

If choice D is selected set score to 1.

48. U.S. Customs, upon boarding a vessel desiring entry into a U.S. port, would inspect which document?

- (A) Certified Crew List
- (B) Cargo Manifest
- (C) Stores List
- (D) All of the above

If choice D is selected set score to 1.

49. A vessel proceeding to London, England, from New York makes an unscheduled call at the port of Hamilton, Bermuda. What term is used to denote the voluntary departure from the usual course?

- (A) Liberty
- (B) Deviation
- (C) Alteration
- (D) Unscheduled stop

If choice B is selected set score to 1.

50. To determine the number of inflatable liferafts required on a vessel, you should check the _____.

- (A) Certificate of Inspection
- (B) SOLAS Certificate
- (C) Load Line Certificate
- (D) Stability Letter

If choice A is selected set score to 1.

51. When will a vessel "squat" while underway?

- (A) Only when in shallow water
- (B) Only when in narrow channels
- (C) Only when in deep water
- (D) In all depths of water

If choice D is selected set score to 1.

52. Sulfuric acid is a _____.

- (A) colorless-to-brown liquid with a choking odor when hot
- (B) whitish liquid with a faint, pleasant odor
- (C) colorless liquid with a pleasant fruity odor
- (D) clear syrupy liquid with no odor

If choice A is selected set score to 1.

53. What should be given, as a minimum, to personnel who are involved in crane cargo handling?

- (A) Protective head gear, gloves, and steel-toed safety shoes
- (B) A survival suit for work on the stern or side port
- (C) A life preserver for going aloft to work on the crane
- (D) All of the above

If choice A is selected set score to 1.

54. Considering the manning requirements for U.S. vessels (100 gross tons and above), your cargo vessel has a deck crew of 20 men, exclusive of the officers. How many of these men do the manning regulations require to be Able Seamen?

- (A) 5
- (B) 7
- (C) 10
- (D) 13

If choice D is selected set score to 1.

55. What is usually NOT required in preparing a hold for reception of a bulk grain cargo?

- (A) Remove loose rust and scale.
- (B) Spray or fumigate any insect colonies.
- (C) Remove residue of previous cargo.
- (D) Steam clean areas obstructed by structural members.

If choice D is selected set score to 1.

56. Why is a VLCC (100,000 DWT+) with a 30,000 Shaft Horsepower Steam Turbine slow to respond to engine movements, and has less stopping power than normal ships?

- (A) They possess smaller propellers
- (B) They have larger power to weight ratio
- (C) They have a bigger propeller
- (D) They have smaller power to weight ratio

If choice D is selected set score to 1.

57. The implied condition(s) with respect to the doctrine of deviation in a marine insurance policy is(are) _____.

- (A) that the voyage be pursued over the usual and direct route
- (B) that the voyage be commenced in a reasonable time
- (C) that the cargo be discharged from the vessel with customary dispatch
- (D) All of the above

If choice D is selected set score to 1.

58. How many months after its expiration date may a Coast Guard credential be renewed without retaking the complete exam?

- (A) 1 month
- (B) 6 months
- (C) 12 months
- (D) 24 months

If choice C is selected set score to 1.

59. Which may indicate the proximity of pack ice?

- (A) Frequent changes in air temperature
- (B) Rapid changes in seawater salinity
- (C) White glare on clouds on the horizon
- (D) Icebergs

If choice C is selected set score to 1.

60. When observed, which item indicates a snag or other underwater obstruction in a river?

- (A) V-shaped ripple with the point of the V pointing upstream
- (B) A smoothing out of the vessel's wake
- (C) A small patch of smooth water on a windy day
- (D) V-shaped ripple with the point of the V pointing downstream

If choice A is selected set score to 1.

61. The most likely time for oil pollution while bunkering is when _____.

- (A) first starting to receive fuel
- (B) hoses are disconnected and being capped
- (C) hoses are being blown down
- (D) final topping off is occurring

If choice D is selected set score to 1.

62. Which is the proper term used to describe a stream of water immediately surrounding a moving vessel's hull, flowing in the same direction as the vessel?

- (A) Wake current
- (B) Propeller current
- (C) Forward current
- (D) Directional current

If choice A is selected set score to 1.

63. Which statement about tunnel bow thrusters fitted to large vessels is TRUE?

- (A) When going astern at slow speed, they provide effective steering control.
- (B) Because of their location, most modern installations have as much power as a tug.
- (C) They are fully effective at all drafts.
- (D) They are effective on most vessels at speeds up to 10 knots.

If choice A is selected set score to 1.

64. According to U.S. regulations, if a cargo hose shows a small leak in its fabric, when may it be used to transfer oil?

- (A) After a drip pan is placed under the leak
- (B) After the terminal foreman is notified
- (C) Never the hose must be replaced
- (D) After the hose leak is securely wrapped

If choice C is selected set score to 1.

65. You are on a single-screw vessel with a right-handed propeller, and you are making headway. What occurs when you enter shallow water?

- (A) Your speed will increase without a change in your throttle
- (B) Your vessel will have better rudder response
- (C) Your vessel will tend to ride higher
- (D) Your rudder response will become sluggish

If choice D is selected set score to 1.

66. If you are operating on the Inland Waters of the United States, which of the following may you discharge overboard?

- (A) Bottles
- (B) Metal
- (C) Dunnage
- (D) None of the above

If choice D is selected set score to 1.

67. If a Master must jettison a container loaded with hazardous material, he must, as soon as possible, notify the _____.

- (A) National Cargo Bureau
- (B) Environmental Protection Agency
- (C) nearest Captain of the Port
- (D) National Hazardous Chemical Response Center

If choice C is selected set score to 1.

68. A crew has signed on for a 3-month voyage. Fourteen days into the voyage a seaman is improperly discharged at the first port of call. How much pay is he entitled to receive?

- (A) 14 days and one month's extra
- (B) double wages (28 days)
- (C) 14 days
- (D) 1 month's

If choice A is selected set score to 1.

69. Which lien against a vessel would be settled FIRST?

- (A) Salvage lien
- (B) Vessel mortgage
- (C) Ship repairer's lien
- (D) Maintenance and cure

If choice A is selected set score to 1.

70. When is a lookout permitted to leave his station?

- (A) Only when properly relieved
- (B) 15 minutes before the end of the watch
- (C) At the end of the watch
- (D) At any time

If choice A is selected set score to 1.