

U.S.C.G. Merchant Marine Exam
Master/Chief Mate Offshore Supply Vessels
Q201 Deck Safety
(Sample Examination)

Choose the best answer to the following Multiple Choice Questions.

1. To disengage a survival craft suspended from the cable above the water, you must pull the safety pin and _____.

- (A) pull the hook release handle and use the ratchet bar
- (B) pull the hook release handle
- (C) use the ratchet bar and depress the retainer
- (D) pull the hook release handle and depress the retainer

If choice A is selected set score to 1.

2. What is the meaning of the signal "G1325"?

- (A) The zone time is 1325.
- (B) The latitude is 13°25'.
- (C) The longitude is 13°25'.
- (D) The GMT is 1325.

If choice C is selected set score to 1.

3. In weighing CO2 cylinders, they must be recharged if weight loss exceeds _____.

- (A) 15% of weight of full bottle
- (B) 10% of weight of charge
- (C) 10% of weight of full bottle
- (D) 20% of weight of charge

If choice B is selected set score to 1.

4. To increase the extent of flooding your vessel can suffer without sinking, you could _____.

- (A) raise the center of gravity
- (B) ballast the vessel
- (C) increase reserve buoyancy
- (D) lower the center of gravity

If choice C is selected set score to 1.

5. The greatest effect on stability occurs from loose liquids flowing _____.

- (A) from fore to aft in the tanks of a vessel
- (B) from side to side in the tanks of the vessel
- (C) in and out of a vessel that is holed in a wing tank
- (D) in and out of a vessel that is holed in a peak tank

If choice C is selected set score to 1.

6. Carbon dioxide as a fire fighting agent has which advantage over other agents?

- (A) It is cheaper.
- (B) It is safer for personnel.
- (C) It is most effective on a per unit basis.
- (D) It causes minimal damage.

If choice D is selected set score to 1.

7. What quality of a diesel fuel is most significant for efficient combustion?

- (A) Specific heat
- (B) Viscosity
- (C) Volatility
- (D) Flash point

If choice C is selected set score to 1.

8. You are approaching a ship that is broken down and are preparing to take her in tow. BEFORE positioning your vessel to pass the towline, you must _____.

- (A) compare the rate of drift between the ships
- (B) install chafing gear on the towline
- (C) secure the bitter end of the towing hawser to prevent loss if the tow is slipped
- (D) have traveling lizards rigged to guide the towline while it is paid-out

If choice A is selected set score to 1.

9. Which type of weld testing can be used to detect internal flaws?

- (A) Dye penetrant
- (B) Chemical reaction
- (C) Radiographic
- (D) Magnetic particle

If choice C is selected set score to 1.

10. Jettisoning weight from topside _____.

- (A) returns the vessel to an even keel
- (B) raises the center of buoyancy
- (C) lowers the center of gravity
- (D) reduces free surface effect

If choice C is selected set score to 1.

11. When approaching a fire from leeward you should shield fire fighters from the fire by using _____.

- (A) low-velocity fog
- (B) foam spray
- (C) a straight stream of water
- (D) high-velocity fog

If choice D is selected set score to 1.

12. Which will be a result of removing on-deck containers?

- (A) KG will increase
- (B) Metacentric height will increase
- (C) KB will increase
- (D) Reserve buoyancy will decrease

If choice B is selected set score to 1.

13. Free communication will adversely affect transverse stability only when the flooded space is _____.

- (A) completely flooded
- (B) open to the sea above and below the waterline
- (C) off-center
- (D) on the centerline

If choice C is selected set score to 1.

14. 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 _____.

- (A) listed
- (B) hogged
- (C) sagged
- (D) trimmed by the head

If choice B is selected set score to 1.

15. While carrying out artificial respiration how should rescuers be changed out?

- (A) at ten-minute intervals
- (B) by not stopping the respiration for more than 5 minutes
- (C) only with the help of two other people
- (D) without losing the rhythm of respiration

If choice D is selected set score to 1.

16. The enclosed area defined as the intersection of the surface of the water and the hull of a vessel is the _____.

- (A) amidships plane
- (B) longitudinal reference plane
- (C) waterplane
- (D) baseline

If choice C is selected set score to 1.

17. Fire in an engine compartment is best extinguished with carbon dioxide gas (CO₂) and by _____.

- (A) closing the compartment except for the ventilators
- (B) leaving the compartment open to the air
- (C) increasing the air flow to the compartment by blowers
- (D) completely closing the compartment

If choice D is selected set score to 1.

18. The term that indicates how many tons of cargo a vessel can carry is _____.

- (A) bale cubic
- (B) deadweight
- (C) loaded displacement
- (D) gross tonnage

If choice B is selected set score to 1.

19. The ceiling is _____.

- (A) a wooden protection placed over the tank top
- (B) material driven into seams or cracks to prevent leaking
- (C) the overhead in berthing compartments
- (D) None of the above are correct

If choice A is selected set score to 1.

20. The horizontal port or starboard movement of a vessel is called _____.

- (A) heave
- (B) surge
- (C) yaw
- (D) sway

If choice D is selected set score to 1.

21. You must shore up a bulkhead due to solid flooding forward. The bulkhead approximates a rectangle. The center of pressure of the shores on the bulkhead should be located _____.

- (A) approximately one-third of the way up the bulkhead
- (B) approximately halfway up the bulkhead
- (C) evenly over the surface of the bulkhead
- (D) at the bottom of the bulkhead

If choice A is selected set score to 1.

22. A fire hose with a nozzle attached must be connected to each hydrant except when exposed to heavy weather or when the _____.

- (A) fire hose might be damaged by cargo operations
- (B) vessel is in port
- (C) fire pumps are used for purposes other than supplying water to the fire main
- (D) fire-main system is not charged

If choice A is selected set score to 1.

23. The wooden planking that protects the tank top from cargo loading is called _____.

- (A) toms
- (B) ceiling
- (C) frames
- (D) shores

If choice B is selected set score to 1.

24. Your vessel has gone aground in waters where the tide is falling. The BEST action you can take is to _____.

- (A) shift the vessel's load aft and repeatedly surge the engine(s) astern
- (B) shift the vessel's load forward and wait until the next high tide
- (C) slowly bring the engine(s) to full speed astern
- (D) set out a kedge anchor

If choice D is selected set score to 1.

25. With no environmental forces acting on the vessel, the center of gravity of an inclined vessel is vertically aligned with the _____.

- (A) center of flotation
- (B) metacenter
- (C) original vertical centerline
- (D) longitudinal centerline

If choice B is selected set score to 1.

26. Signs of racking stresses generally appear at the _____.

- (A) bow and stern shell frames and plating
- (B) junction of the frames with the beams and floors
- (C) thrust bearing of the main shaft
- (D) garboard strake, at each side of the keel

If choice B is selected set score to 1.

27. The normal tendency for a loaded tanker is to _____.

- (A) be very tender
- (B) have a permanent list
- (C) hog
- (D) sag

If choice D is selected set score to 1.

28. What is NOT a motion of the vessel?

- (A) Pitch
- (B) Yaw
- (C) Roll
- (D) Trim

If choice D is selected set score to 1.

29. 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 _____.

- (A) 1.26 feet
- (B) 3.80 feet
- (C) 4.80 feet
- (D) 5.66 feet

If choice D is selected set score to 1.

30. 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?

- (A) Press up a centerline double bottom that is now filled to 15% capacity.
- (B) Rig the jumbo boom and use it to jettison heavy deck cargo.
- (C) In calm seas lower the lifeboats to the water and keep them alongside.
- (D) Pump out the peak tanks simultaneously.

If choice C is selected set score to 1.

31. What is the effect of heated intake air on a diesel engine?

- (A) Increases engine horsepower
- (B) Increases engine life
- (C) Reduces engine horsepower
- (D) Increases efficiency

If choice C is selected set score to 1.

32. What is the purpose of a striker plate?

- (A) Absorbs machinery vibration
- (B) Provides surface for applying force on machinery
- (C) Prevents valve stem over-travel
- (D) Provides landing surface for the sounding bob

If choice D is selected set score to 1.

33. Progressive flooding is controlled by securing watertight boundaries and _____.

- (A) transferring water ballast
- (B) abandoning ship
- (C) pumping out flooded compartments
- (D) jettisoning cargo

If choice C is selected set score to 1.

34. The most serious effect of oxygen retained in a diesel engine jacket water cooling system is that it _____.

- (A) can form air pockets which exclude coolant contact with hot surfaces
- (B) reduces the effectiveness of the coolant
- (C) accelerates formation of hydrogen peroxide deposits
- (D) causes corrosion

If choice D is selected set score to 1.

35. What is the best indication of the loading of a diesel engine?

- (A) Manifold pressure
- (B) Exhaust gas temperature
- (C) Oil temperature
- (D) Fuel consumption

If choice B is selected set score to 1.

36. What is the most probable cause of reduced capacity in a reciprocating air compressor?

- (A) Leaking air valves
- (B) Carbon on cylinder heads
- (C) Faulty unloader
- (D) Plugged air cooler

If choice A is selected set score to 1.

37. A spark arrestor _____.

- (A) grounds static electricity
- (B) prevents sparks from getting out of an engine's exhaust system
- (C) secures covers on ullage openings
- (D) keeps sparks from falling into an open tank

If choice B is selected set score to 1.

38. What is the function of an air receiver in the compressed air system?

- (A) Provides overpressure protection
- (B) Purifies the air
- (C) Condenses moisture
- (D) Acts as an accumulator

If choice D is selected set score to 1.

39. Mechanical gearing of deck machinery such as the windlass or towing engine should _____.

- (A) be open to view so, if a foreign object gets in the gearing, the operator can immediately stop the machinery
- (B) not be operated if there is any crew within 10 feet of the machinery
- (C) be painted a contrasting color from the base color in order to call attention to the gearing
- (D) have a guard over the gearing

If choice D is selected set score to 1.

40. If passengers are on board when an abandon ship drill is carried out, they should _____.

- (A) take part
- (B) stay out of the way and do what they want
- (C) watch
- (D) go to their quarters

If choice A is selected set score to 1.

41. For the purpose of training and drills, if reasonable and practicable, how frequently should rescue boats be launched with their assigned crew?

- (A) once a year
- (B) once a week
- (C) once a month
- (D) twice a year

If choice C is selected set score to 1.

42. The minimum concentration of a vapor in air which can form an explosive mixture is called the _____.

- (A) threshold limit value (TLV)
- (B) lower explosive limit (LEL)
- (C) auto-ignition point
- (D) flash point

If choice B is selected set score to 1.

43. A fire starting by spontaneous combustion can be expected in which condition?

- (A) Oily rags are stowed in a metal pail.
- (B) Inert cargoes such as pig iron are loaded in a wet condition.
- (C) Clean mattresses are stored in contact with an electric light bulb.
- (D) Paints, varnish, or other liquid flammables are stowed in a dry stores locker.

If choice A is selected set score to 1.

44. A fire in a pile of canvas is classified as class _____.

- (A) A
- (B) B
- (C) C
- (D) D

If choice A is selected set score to 1.

45. An "ABC" dry chemical fire extinguisher would be LEAST effective against a fire in _____.

- (A) high voltage electrical gear
- (B) a trash can
- (C) a mattress
- (D) spilled liquids such as oil or paint

If choice C is selected set score to 1.

46. What is the MOST important consideration when determining how to fight an electrical fire?

- (A) Whether the fire is in machinery or passenger spaces
- (B) Maintaining electrical power
- (C) The amount of toxic fumes created by the extinguisher
- (D) Danger of shock to personnel

If choice D is selected set score to 1.

47. You are at sea 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?

- (A) If on a coastwise voyage along the east coast of the U.S., you should put into the nearest port.
- (B) You should only enter a port in the danger zone during hours of darkness.
- (C) You should attempt to submit an AMVER report to NSA.
- (D) When over 200 hundred miles from a port in the danger zone, you should not darken ship.

If choice C is selected set score to 1.

48. 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?

- (A) 1 pint
- (B) 1 can
- (C) 1 quart
- (D) 1 gallon

If choice A is selected set score to 1.

49. If you are forced to abandon ship in a rescue boat, you should _____.

- (A) head for the nearest land
- (B) head for the closest sea-lanes
- (C) remain in the immediate vicinity
- (D) vote on what to do, so all hands will have a part in the decision

If choice C is selected set score to 1.

50. If help has not arrived in 10-12 hours after abandoning a vessel in a rescue boat, you should _____.

- (A) go in one direction until the fuel runs out
- (B) shut down the engines if installed and put out the sea anchor
- (C) steer a course for the nearest land
- (D) steer a course for the nearest sea lane

If choice B is selected set score to 1.

51. A situation has occurred in which your vessel must be towed. When the towing vessel passes the towing line to you, you should secure the line _____.

- (A) to the forward part of the deckhouse
- (B) to the forward-most bitts
- (C) to the base of the foremast
- (D) at the stern

If choice B is selected set score to 1.

52. A situation has occurred where it becomes necessary for you to be towed. What action should be taken to prevent your vessel from yawing?

- (A) Shift weight to the bow
- (B) Throw excess weight overboard
- (C) Shift weight to the stern
- (D) Shift weight to the center of the boat

If choice C is selected set score to 1.

53. Which of the following statements relating to AMVER (Automated Mutual-assistance Vessel Rescue) is TRUE?

- (A) An AMVER participant is under greater obligation to render assistance to a vessel in distress than a non-participant.
- (B) 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.
- (C) There is no cost to the ship or owner for messages sent within the AMVER system.
- (D) The AMVER system does not reduce the time lost for vessels responding to calls for assistance.

If choice C is selected set score to 1.

54. When a man who is conscious has fallen overboard is being picked up by a lifeboat, the boat should approach with the wind _____.

- (A) ahead and the victim just off the bow
- (B) just off the bow and the victim to leeward
- (C) just off the bow and the victim to windward
- (D) astern and the victim just off the bow

If choice B is selected set score to 1.

55. You are on watch and see a man fall overboard. Which man overboard turn should NOT be used in this situation?

- (A) Racetrack
- (B) Scharnow
- (C) Single turn
- (D) Williamson

If choice B is selected set score to 1.

56. In general, how often are sanitary inspections of passenger and crew quarters made aboard passenger vessels in river service?

- (A) Once each day
- (B) Once each week
- (C) Once each month
- (D) Once each trip

If choice C is selected set score to 1.

57. A Deratization Exemption Certificate is valid for a period of _____.

- (A) no time limit so long as no evidence of rodents aboard
- (B) no time limit so long as Certificate of Sanitation is valid
- (C) 6 months
- (D) 1 year

If choice C is selected set score to 1.

58. How should you FIRST treat a simple fracture?

- (A) applying a tourniquet
- (B) preventing further movement of the bone
- (C) attempting to set the fracture
- (D) alternately applying hot and cold compresses

If choice B is selected set score to 1.

59. What is the FIRST thing the rescuer must do if the patient vomits during mouth-to-mouth resuscitation?

- (A) turn the patient's body to the side, sweep out the mouth and resume mouth-to-mouth ventilation
- (B) pause for a moment until the patient appears quiet again, then resume ventilation mouth-to-mouth
- (C) switch to mouth-to-nose ventilation
- (D) ignore it and continue mouth-to-mouth ventilation

If choice A is selected set score to 1.

60. What is the spoken emergency signal for a distress signal over a VHF radio?

- (A) Red Alert
- (B) Pan
- (C) Security
- (D) Mayday

If choice D is selected set score to 1.

61. 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?

- (A) Do not acknowledge because you are too far away to take action.
- (B) Do not acknowledge receipt until other ships nearer to the distress have acknowledged.
- (C) Immediately acknowledge receipt of the distress message.
- (D) Defer acknowledgment for a short interval so that a coast station may acknowledge receipt.

If choice C is selected set score to 1.

62. Which vessel(s) is(are) required to comply with the vessel bridge-to-bridge radiotelephone regulations while navigating?

- (A) All passenger vessels of 50 gross tons or less, carrying one or more passengers
- (B) Power-driven vessels 20 meters in length or longer
- (C) All towing vessels 25 feet or less in length
- (D) An intermittently manned floating plant under the control of a dredge

If choice B is selected set score to 1.

63. What is the calling and distress frequency on a single side band (SSB) marine radiotelephone?

- (A) 1492 kHz
- (B) 1892 kHz
- (C) 2082 kHz
- (D) 2182 kHz

If choice D is selected set score to 1.

64. How long must GMDSS Radio Logs be retained by the licensee when they relate to a distress situation or disaster?

- (A) 3 years
- (B) 6 months
- (C) 1 year
- (D) 2 years

If choice A is selected set score to 1.

65. Which group would be used to send the signal Greenwich mean time 11:35 pm?

- (A) Z 2335
- (B) G 2335
- (C) GMT 1135PM
- (D) T 2335 GMT

If choice A is selected set score to 1.

66. What would a signal indicating Greenwich mean time would be preceded with?

- (A) a code hoist to indicate Greenwich mean time to follow
- (B) the letters GT
- (C) the letter Z
- (D) the letter G

If choice C is selected set score to 1.

67. What is placed on the underside of an inflatable liferaft to help prevent it from being skidded by the wind or overturned?

- (A) Strikes
- (B) Sea anchor
- (C) A keel
- (D) Ballast bags

If choice D is selected set score to 1.

68. Number 3 lifeboat would be _____.

- (A) the forward boat on the starboard side
- (B) behind boat number 2 on the port side
- (C) behind boat number 1 on the starboard side
- (D) behind boat number 1 on the port side

If choice C is selected set score to 1.

69. 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) not more than 120 feet per minute
- (B) not less than 120 feet per minute
- (C) a safe speed only specified
- (D) not more than 90 feet per minute

If choice A is selected set score to 1.

70. The service use of pyrotechnic distress signals measured from the date of manufacture shall be limited to a period of _____.

- (A) 24 months
- (B) 36 months
- (C) 42 months
- (D) 60 months

If choice C is selected set score to 1.