U.S.C.G. Merchant Marine Exam

Mate Offshore Supply Vessels

Q210 Deck Safety

(Sample Examination)
Choose the best answer to the following Multiple Choice Questions:

1. Which is TRUE of a distress signal?
   - (A) It is used to indicate doubt about another vessel's intentions
   - (B) It may be used individually or in conjunction with other distress signals
   - (C) It shall consist of the raising and lowering of a large white flag
   - (D) It shall consist of 5 or more short blasts of the fog signal apparatus

   *If choice B is selected set score to 1.*

2. When supplemented by a comparable signal on the general alarm, what is the signal for boat stations or boat drill?
   - (A) One long blast followed by three short blasts of the whistle
   - (B) A continuous blast of the whistle for a period of not less than 10 seconds
   - (C) More than six short blasts followed by one long blast of the whistle
   - (D) Three short blasts of the whistle

   *If choice C is selected set score to 1.*

3. A thrust bearing is designed to accomplish which action?
   - (A) To be placed between the engines and the foundation to absorb the vibration
   - (B) To transmit the thrust of the engine to the propeller
   - (C) To transmit the thrust of the propeller to the vessel
   - (D) To absorb the shock of wave pressure at the bow

   *If choice C is selected set score to 1.*

4. What letter is a signal indicating zone time preceded with?
   - (A) T
   - (B) Z
   - (C) N
   - (D) L

   *If choice A is selected set score to 1.*

5. Large volumes of carbon dioxide are safe and effective for fighting fires in enclosed spaces, such as in a pumproom, provided that the __________.
   - (A) ventilation system is secured and all persons leave the space
   - (B) persons in the space wear gas masks
   - (C) ventilation system is kept operating
   - (D) persons in the space wear damp cloths over their mouths and nostrils

   *If choice A is selected set score to 1.*
6. Traditionally, the signal for fire aboard ship is __________.
   - (A) alternating short and long blasts on the ship's whistle
   - (B) 1 short blast on the whistle
   - (C) continuous sounding of the ship's whistle and the general alarm for at least 10 seconds
   - (D) more than 6 short blasts and 1 long blast on the whistle, and the same signal on the general alarm

   *If choice C is selected set score to 1.*

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

   *If choice A is selected set score to 1.*

8. What does a pyrometer measure on a diesel engine?
   - (A) Water pressure
   - (B) Air box pressure
   - (C) Exhaust temperature
   - (D) Water temperature

   *If choice C is selected set score to 1.*

9. What is required in addition to the heat, fuel, and oxygen of the fire triangle to have a fire?
   - (A) Smoke
   - (B) Chain reaction
   - (C) Electricity
   - (D) Pressure

   *If choice B is selected set score to 1.*

10. A crew member reports that the high-pressure alarm light of a low-pressure CO2 fixed fire extinguishing system is illuminated. What would be the most probable cause of this condition?
    - (A) An excessive amount of insulation has been installed on the tank and piping
    - (B) An air leak has developed in the tank
    - (C) The pilot cylinder discharge valve is leaking
    - (D) The tank cooling system has malfunctioned

   *If choice D is selected set score to 1.*
11. You hear the general alarm and ship’s whistle sound for over 10 seconds. What does this signal mean?

- (A) Fire and emergency
- (B) Man overboard
- (C) Abandon ship
- (D) Dismissal from fire and emergency stations

*If choice A is selected set score to 1.*

12. What can an oxygen indicator can be used to determine?

- (A) If hydrogen gas present
- (B) If combustible gases present
- (C) If there is sufficient oxygen in a compartment to support life
- (D) All of the above

*If choice C is selected set score to 1.*

13. A seaman is reported missing in the morning and was last seen after coming off the mid-watch. Which type of turn would you use to return to the track-line steamed during the night?

- (A) Racetrack
- (B) Williamson
- (C) Anderson
- (D) 180° turn

*If choice B is selected set score to 1.*

14. Which is TRUE if passengers are on board when an abandon ship drill is carried out?

- (A) Passenger should go to their quarters during drills
- (B) The passengers should just watch
- (C) The passengers should stay out of the way and do what they want
- (D) The passengers should take part in the drill

*If choice D is selected set score to 1.*

15. You are approaching a ship that is broken down and are preparing to take her in tow. BEFORE positioning your vessel to pass the topline, which action should you take?

- (A) Install chafing gear on the topline
- (B) Compare the rate of drift between the ships
- (C) Have traveling lizards rigged to guide the topline while it is paid-out
- (D) Secure the bitter end of the towing hawser to prevent loss if the tow is slipped

*If choice B is selected set score to 1.*
16. Your voyage planning indicates you will arrive at a waypoint in longitude 049°16.3' W at 0947 ZT on 3 March 1988. How should this date be entered into an AMVER report?

- (A) 309473
- (B) 030947P
- (C) 124733 MAR
- (D) 031247Z

*If choice D is selected set score to 1.*

17. Most enclosed lifeboats will right themselves after capsizing IF which condition exists?

- (A) The sea anchor is deployed to windward
- (B) The passengers are strapped to their seats
- (C) Fuel tanks are not less than half full
- (D) The lower ballast tanks are filled with water

*If choice B is selected set score to 1.*

18. The order of importance in addressing damage control is __________.

- (A) control fire, restore vital services, control flooding
- (B) restore vital services, control fire, control flooding
- (C) control fire, control flooding, repair structural damage
- (D) control flooding, control fire, repair structural damage

*If choice C is selected set score to 1.*

19. Where are panting frames located in the vessel?

- (A) After double bottoms
- (B) Forward double bottoms
- (C) Centerline tanks on tankships
- (D) Fore and after peaks

*If choice D is selected set score to 1.*

20. Which statement is TRUE concerning distress signals in a lifeboat?

- (A) A Very pistol with twelve flares is required in a lifeboat
- (B) Two hand-held smoke signals and two parachute flare are required in a lifeboat
- (C) If hand-held rocket-propelled parachute flares are provided, they are the only distress signals required in a lifeboat
- (D) Parachute flares, hand held flares and orange smoke signals are required in a lifeboat

*If choice D is selected set score to 1.*
21. Which type of davit requires you to turn a crank in order to swing the lifeboat out over the ship's side?

- (A) A bruckner davit
- (B) A gravity davit
- (C) A sheath-screw davit
- (D) A radial davit

*If choice C is selected set score to 1.*

22. All lifeboats, rescue boats, and rigid-type liferafts shall be stripped, cleaned, and thoroughly overhauled at which time interval?

- (A) 6 months
- (B) Yearly
- (C) 18 months
- (D) Every two years

*If choice B is selected set score to 1.*

23. If your vessel is equipped with inflatable liferafts, how should they be maintained?

- (A) Have them serviced by the shipyard annually.
- (B) They do not need any maintenance.
- (C) Have them sent ashore to an approved maintenance facility annually.
- (D) Have your crew check them annually.

*If choice C is selected set score to 1.*

24. If you are forced to abandon ship in a lifeboat 1,000 nautical miles from the coast, which is your best action to take?

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

*If choice A is selected set score to 1.*

25. According to the regulations for lifeboat falls, which action must be taken at 30-month intervals?

- (A) Renewed
- (B) Inspected
- (C) Weight tested
- (D) End-for-ended

*If choice D is selected set score to 1.*
26. In illustration D039SA below, which Fire Control Plan symbol represents the best means to extinguish a LARGE Class Bravo fire on deck?

- (A) 44
- (B) 39
- (C) 36
- (D) 14

*If choice D is selected set score to 1.*

27. 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?

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

*If choice C is selected set score to 1.*

28. Carbon dioxide as a firefighting agent has which advantage over other agents?

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

*If choice B is selected set score to 1.*

29. Which statement is TRUE concerning carbon dioxide?

- (A) It is lighter than air.
- (B) It is an inert gas.
- (C) It is used mostly on class A fires.
- (D) All of the above

*If choice B is selected set score to 1.*

30. Which is the term given to the joint formed when two steel plates are placed end-to-end?

- (A) Bond
- (B) Butt
- (C) Seam
- (D) Bevel

*If choice B is selected set score to 1.*
31. Which defines the function of a spark arrestor?

- (A) It keeps sparks from falling into an open tank
- (B) Grounds static electricity reducing chance of explosion
- (C) Utilized to secure covers on ullage openings
- (D) Prevents sparks from getting out of an engine's exhaust system

*If choice D is selected set score to 1.*

32. Which term defines the upward pressure of displaced water of a vessel?

- (A) Deadweight
- (B) Buoyancy
- (C) Draft
- (D) Freeboard

*If choice B is selected set score to 1.*

33. A crew member has just fallen overboard off your port side. Which action should you take?

- (A) Immediately put the rudder over hard right.
- (B) Wait until the stern is well clear of the man and then put the rudder over hard right.
- (C) Immediately put the engines astern.
- (D) Immediately put the rudder over hard left.

*If choice D is selected set score to 1.*

34. Which type of hull damage should be repaired FIRST?

- (A) Damage in way of machinery rooms
- (B) Damage at or just above the waterline
- (C) Damage to interior watertight boundaries
- (D) Damage below the waterline

*If choice B is selected set score to 1.*

35. 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?

- (A) 64 cubic feet
- (B) 100 gallons
- (C) 500 liters
- (D) 35 cubic feet

*If choice D is selected set score to 1.*
36. You are wearing a breathing apparatus inside a tank. How many tugs on the lifeline should you give to indicate that you need help?

- (A) 1
- (B) 2
- (C) 3
- (D) 4

*If choice D is selected set score to 1.*

37. You are reading the draft marks as shown in illustration D032DG. 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?

- (A) 10'-06"
- (B) 10'-08"
- (C) 10'-10"
- (D) 11'-02"

*If choice C is selected set score to 1.*

38. Which is the primary method by which water spray puts out fires?

- (A) Cooling the fire below the ignition temperature
- (B) By removing the oxygen
- (C) By removing combustible material
- (D) Diluting combustible vapors

*If choice A is selected set score to 1.*

39. Convection spreads a fire by __________.

- (A) transmitting the heat of a fire through the ship's metal
- (B) the transfer of heat across an unobstructed space
- (C) heated gases flowing through ventilation systems
- (D) burning liquids flowing into another space

*If choice C is selected set score to 1.*

40. What name is given to the perforated, elevated bottom of the chain locker, which prevents the chains from touching the main locker bottom and allows seepage water to flow to the drains?

- (A) Harping
- (B) Cradle
- (C) Draft
- (D) Manger

*If choice D is selected set score to 1.*
41. What is the distance between the bottom of the hull and the waterline called?
   
   o (A) Reserve buoyancy
   o (B) Freeboard
   o (C) Tonnage
   • (D) Draft

   *If choice D is selected set score to 1.*

42. Which is the MOST important consideration for a tank vessel?

   o (A) The vertical center of gravity
   • (B) The stress on the hull
   o (C) GM
   o (D) The longitudinal center of gravity

   *If choice B is selected set score to 1.*

43. Which is TRUE concerning drinking salt water?

   o (A) It is safe to drink if mixed with fresh water
   o (B) Saltwater prevents seasickness
   o (C) Saltwater protects against heat cramps
   • (D) Consuming saltwater will dehydrate you

   *If choice D is selected set score to 1.*

44. All personnel on board a vessel should be familiar with the rescue boat's __________.

   o (A) maintenance schedules
   o (B) fuel consumption rates
   o (C) navigational systems
   • (D) boarding and operating procedure

   *If choice D is selected set score to 1.*

45. If the situation arose where it became necessary to tow a disabled vessel, which statement is TRUE concerning the towing line?

   o (A) The towing line between the two vessels should be clear of the water.
   o (B) The towing line should be taut at all times between the vessels.
   • (C) There should be a catenary so the line dips into the water.
   o (D) None of the above.

   *If choice C is selected set score to 1.*
46. What is the most important characteristic of the extinguishing agent in fighting a class "C" fire?

- (A) Electrical nonconductivity
- (B) Temperature
- (C) Cost
- (D) Weight

*If choice A is selected set score to 1.*

47. The radiotelephone safety message urgently concerned with safety of a person would be prefixed by which word?

- (A) Safety
- (B) Mayday
- (C) Pan
- (D) Interco

*If choice C is selected set score to 1.*

48. As the displacement of a vessel increases, which describes the change of the detrimental effect of free surface?

- (A) The effect decreases
- (B) The effect remains the same
- (C) It may increase or decrease depending on the fineness of the vessel's form
- (D) The effect increases

*If choice A is selected set score to 1.*

49. What is the most important thing to remember when launching an inflatable liferaft by hand?

- (A) Open the raft container
- (B) Open the CO2 inflation valve
- (C) Inflate the raft on the vessel, then throw it over the side
- (D) Ensure that the operating cord is secured to the vessel

*If choice D is selected set score to 1.*

50. In rough weather, when a ship is able to maneuver, which is TRUE when launching a lifeboat?

- (A) Launch with the wind from astern
- (B) Launch on the lee side
- (C) Launch with the wind dead ahead
- (D) Launch on the windward side

*If choice B is selected set score to 1.*
51. Which is the best action to take when plugging holes below the waterline for the safety of the vessel?

- (A) Only plug holes in machinery or other vital spaces
- (B) Reduce the entry of water as much as possible
- (C) Plug the largest holes first
- (D) Eliminate all water entering the hole

If choice B is selected set score to 1.

52. Rolling is angular motion of the vessel about what axis?

- (A) Longitudinal
- (B) Vertical
- (C) Centerline
- (D) Transverse

If choice A is selected set score to 1.

53. Which are the two points that act together to trim a ship?

- (A) Metacenter and LCG
- (B) LCF and LCB
- (C) VCG and LCG
- (D) LCG and LCB

If choice D is selected set score to 1.

54. Signals between an icebreaker and an assisted vessel may NOT be given by which form of communication?

- (A) Whistle
- (B) Flag hoist
- (C) Radiotelephone
- (D) Radiotelegraph

If choice D is selected set score to 1.

55. On a passenger vessel, the vessel's name must appear on which item(s)?

- (A) lifeboats
- (B) lifeboat oars
- (C) ring life buoy
- (D) All of the above

If choice D is selected set score to 1.
56. Which term describes the horizontal fore or aft motion of a vessel?

- (A) Roll
- (B) Surge
- (C) Pitch
- (D) Sway

*If choice B is selected set score to 1.*

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

*If choice A is selected set score to 1.*

58. Routine radio communications should be no more than which duration?

- (A) one minute
- (B) three minutes
- (C) five minutes
- (D) eight minutes

*If choice B is selected set score to 1.*

59. While proceeding to a distress site, you hear the words "Seelonce mayday" on the radiotelephone. Which action should you take?

- (A) Monitor the radiotelephone but do not transmit.
- (B) Acknowledge receipt and advise your course, speed, and ETA.
- (C) Relay the original distress message as no other vessel has acknowledged it.
- (D) Resume base course and speed as your assistance is no longer required.

*If choice A is selected set score to 1.*

60. In illustration D016SA below, the line indicated by number 4 is connected to which of the following?

- (A) releasing gear
- (B) Fleming gear
- (C) sea painter
- (D) McCluny hook

*If choice D is selected set score to 1.*
61. The searchlight on a survival craft must be capable of operating 3 hours continuously or 6 hours intermittently if operated in which cycles?

- (A) 5 minutes on and 10 minutes off
- (B) 10 minutes on and 5 minutes off
- (C) 15 minutes on and 5 minutes off
- (D) 15 minutes on and 10 minutes off

*If choice C is selected set score to 1.*

62. 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 which chemical?

- (A) Vinyl toluene
- (B) Oleum
- (C) Benzene
- (D) Acrylic acid

*If choice B is selected set score to 1.*

63. You are in a lifeboat broadcasting a distress message. What information would be essential to your rescuers?

- (A) Your position by latitude and longitude
- (B) The nature of the distress
- (C) Number of persons aboard
- (D) All of the above

*If choice D is selected set score to 1.*

64. Which is the normal tendency for a loaded tanker?

- (A) Have a permanent list
- (B) To be very tender
- (C) Hog
- (D) Sag

*If choice D is selected set score to 1.*

65. Your vessel has been damaged and is partially flooded. The first step to be taken in attempting to save the vessel is to __________.

- (A) plug the hole(s) in the outer shell
- (B) pump out the water inside the vessel
- (C) calculate the free surface effect and lost buoyancy to determine the vessel's stability
- (D) establish flooding boundaries and prevent further spread of flood water

*If choice D is selected set score to 1.*
66. In illustration D036SA below, what does the solid arrow in the Crew Mess represent on the Fire Control Plans?

- (A) Primary means of escape
- (B) Nearest door
- (C) Search and rescue route
- (D) Path of forced ventilation

If choice A is selected set score to 1.

67. If you have to abandon ship, and enter a liferaft, what should be your main course of action?

- (A) Head for the closest land
- (B) Remain in the vicinity of the sinking vessel
- (C) Head for the closest sea lanes
- (D) Get a majority opinion

If choice B is selected set score to 1.

68. The ship’s tanks most effective for trimming are the __________.

- (A) peaks
- (B) settlers
- (C) domestics
- (D) deeps

If choice A is selected set score to 1.

69. The wooden plug inserted in the vent of a damaged tank should be removed if you are going to __________.

- (A) use the crossover system
- (B) fight a fire
- (C) pump from the damaged tank
- (D) abandon ship

If choice C is selected set score to 1.

70. A yellow signal, floating in the air from a parachute, about 300 feet above the water, indicates what about a submarine?

- (A) It will be coming to periscope depth
- (B) The submarine is on the bottom in distress
- (C) The submarine is in distress and will try to surface
- (D) It will be coming to the surface

If choice A is selected set score to 1.
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