

U.S.C.G. Merchant Marine Exam

Apprentice Mate Steersman

Q411 Deck Safety

(Sample Examination)

Choose the best answer to the following Multiple Choice Questions.

1. Which is TRUE concerning immersion suits and their use?

- (A) Only a light layer of clothing may be worn underneath.
- (B) They should be tight fitting.
- (C) A puncture in the suit will not appreciably reduce its value.
- (D) They provide sufficient flotation to do away with the necessity of wearing a life jacket.

If choice D is selected set score to 1.

2. In illustration D014SA below, which item number correctly identifies the sea anchor?

- (A) 1
- (B) 12
- (C) 14
- (D) 18

If choice D is selected set score to 1.

3. The main advantage of a steady stream of water on a class "A" fire is that it _____.

- (A) breaks up and cools the fire
- (B) washes the fire away
- (C) protects the firefighting crew
- (D) removes the oxygen

If choice A is selected set score to 1.

4. 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.

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. 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.

7. 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.

8. 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.

9. Transverse frames are more widely spaced on a ship that is designed with the _____.

- (A) longitudinal system of framing
- (B) transverse system of framing
- (C) isometric system of framing
- (D) centerline system of framing

If choice A is selected set score to 1.

10. Horizontal transverse motion of a vessel is known as _____.

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

If choice C is selected set score to 1.

11. You are fighting a class "B" fire with a portable dry chemical extinguisher. The discharge should be directed _____.

- (A) to bank off a bulkhead onto the fire
- (B) over the top of the fire
- (C) at the seat of the fire, starting at the near edge
- (D) at the main body of the fire

If choice C is selected set score to 1.

12. The Sheer Plan _____.

- (A) has the forebody to the right of centerline and afterbody to the left of centerline
- (B) is an endwise view of the ship's molded form
- (C) shows a longitudinal side elevation
- (D) is usually drawn for the port side only

If choice C 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 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.

15. Normally before taking drinking water on board in the U.S. or its possessions, the responsible person from the vessel should determine that the source _____.

- (A) is used by a city
- (B) is approved by the Public Health Service
- (C) is not from surface water
- (D) has been treated with chlorine

If choice B is selected set score to 1.

16. The distance between the waterline of a vessel and the main deck is called _____.

- (A) freeboard
- (B) camber
- (C) buoyancy
- (D) draft

If choice A is selected set score to 1.

17. Recharging a previously used cartridge-operated dry-chemical extinguisher is accomplished by _____.

- (A) recharging the cartridge and refilling it with powder
- (B) authorized fire equipment servicing personnel only
- (C) replacing the propellant cartridge and refilling with powder
- (D) puncturing the cartridge seal after installation

If choice C is selected set score to 1.

18. Which is NOT an advantage of the flush method of welded shell plating?

- (A) Reduces weight
- (B) Reduces plate stress
- (C) Keeps practically 100% of tensile strength at the joints
- (D) Reduces frictional resistance

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 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.

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. Ventilation systems connected to a compartment in which a fire is burning are normally closed to prevent the rapid spread of the fire by _____.

- (A) spontaneous combustion
- (B) conduction
- (C) radiation
- (D) convection

If choice D 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. 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.

25. A vessel's "quarter" is that section which is _____.

- (A) on either side of the stern
- (B) abeam
- (C) just aft of the bow
- (D) dead astern

If choice A is selected set score to 1.

26. A short ton is a unit of weight consisting of _____.

- (A) 2,205 pounds
- (B) 2,000 pounds
- (C) 1,000 pounds
- (D) 2,240 pounds

If choice B is selected set score to 1.

27. The correction to KG for transverse free surface effects may be found by dividing the vessel's displacement into the _____.

- (A) sum of the transverse free surface moments of the vessel
- (B) sum of the vertical moments of the vessel
- (C) transverse baseline of the vessel
- (D) transverse free surface correction for the vessel

If choice A is selected set score to 1.

28. A negative metacentric height _____.

- (A) will always cause a vessel to capsize
- (B) should always be immediately corrected
- (C) always results from off-center weights
- (D) All of the above are correct

If choice B is selected set score to 1.

29. 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.

30. 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.

31. 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?

- (A) Superheater
- (B) Economizer
- (C) Mud drum
- (D) Firebox

If choice A is selected set score to 1.

32. The brickwork surrounding the firebox of a boiler is known as _____.

- (A) the water wall
- (B) refractory
- (C) the screen wall
- (D) fire plate

If choice B 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. Diesel engines obtain combustion air through turbo chargers, blowers, or _____.

- (A) carburetors
- (B) air receivers
- (C) natural aspiration
- (D) air starters

If choice C is selected set score to 1.

35. The quickest method to stop a small diesel engine whose throttle or governor has become stuck open is to _____.

- (A) drain the fuel tank
- (B) turn off the ignition switch
- (C) apply the shaft brake
- (D) close the fuel supply valve

If choice D is selected set score to 1.

36. 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.

37. All diesel engines are classified as _____.

- (A) vacuum ignition
- (B) external combustion
- (C) four cycle
- (D) compression ignition

If choice D is selected set score to 1.

38. What does a pyrometer measure on a diesel engine?

- (A) Exhaust temperature
- (B) Air box pressure
- (C) Water pressure
- (D) Water temperature

If choice A is selected set score to 1.

39. 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.

40. 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.

41. 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.

42. 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.

43. 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?

- (A) Phosgene gas may be formed if it comes in contact with hot metal.
- (B) You cannot use water to fight the fire because it will react with the carbon tetrachloride.
- (C) It will explode if exposed to a flame.
- (D) It will burn rapidly once ignited.

If choice A is selected set score to 1.

44. The spread of fire is prevented by _____.

- (A) removing combustibles from the endangered area
- (B) cooling surfaces adjacent to the fire
- (C) shutting off the oxygen supply
- (D) All of the above

If choice D is selected set score to 1.

45. 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.

46. The outlet at a fire hydrant may be positioned anywhere from horizontal to pointing _____.

- (A) vertically upward
- (B) 45° upward
- (C) vertically downward
- (D) all of the above

If choice C is selected set score to 1.

47. 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.

48. 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.

49. 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.

50. 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.

51. 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.

52. A person has fallen overboard and is being picked up with a lifeboat. If the person appears in danger of drowning, the lifeboat should make _____.

- (A) an approach across the wind
- (B) an approach from windward
- (C) the most direct approach
- (D) an approach from leeward

If choice C is selected set score to 1.

53. While you are on watch, you learn that a crewman has not been seen on board for the past three hours. Which type of turn is best in this man-overboard situation?

- (A) Scharnow
- (B) Racetrack
- (C) Round
- (D) Single turn of 180°

If choice A is selected set score to 1.

54. 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.

55. 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.

56. 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.

57. 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.

58. Normally It is desirable to have screens on the vents of potable water tanks to _____.

- (A) prevent backups
- (B) prevent explosions
- (C) filter the incoming air
- (D) stop insects from entering

If choice D is selected set score to 1.

59. What is the penalty for failure to enforce, or comply with, the vessel bridge-to-bridge radiotelephone regulations?

- (A) \$5,000 fine and imprisonment for not more than one year, or both
- (B) Civil penalty of no more than \$5,000
- (C) Civil penalty of no more than \$650
- (D) \$1,000 fine or imprisonment for not more than two years

If choice C is selected set score to 1.

- 60.** 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?
- (A) Broadcast "Charlie Quebec-Mayday-Quiet".
 - (B) Switch to flag hoists.
 - (C) Key the microphone three times in quick succession.
 - (D) Broadcast "Seelonce Distress".

If choice D is selected set score to 1.

- 61.** You see an iceberg that has not been reported. What kind of radio message do you transmit to warn others?
- (A) Routine message
 - (B) Safety message
 - (C) Distress message
 - (D) Urgency message

If choice B is selected set score to 1.

- 62.** The color of rockets, shells, or rocket parachute flares used to indicate that the vessel is in distress and requires immediate assistance is _____.
- (A) white
 - (B) green
 - (C) yellow
 - (D) red

If choice D is selected set score to 1.

- 63.** By day, what is the signal meaning, "This is the best place to land"?
- (A) white smoke signal
 - (B) vertical motion of a red flag
 - (C) white star rocket
 - (D) vertical motion of a white flag or the arms

If choice D is selected set score to 1.

- 64.** The lights on the outside of the canopy on an inflatable liferaft operate _____.
- (A) by turning the globe clockwise
 - (B) by a switch at each light
 - (C) automatically when the raft is inflated
 - (D) by a light sensor

If choice C is selected set score to 1.

65. 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.

66. To launch a liferaft by hand, you should _____.

- (A) throw the liferaft over the side and pull the operating cord
- (B) cut the casing bands, throw the raft over the side and it will inflate by itself
- (C) cut the casing bands, throw the raft over the side and pull the operating cord
- (D) detach the operating cord, throw the liferaft over the side and it will then inflate

If choice A is selected set score to 1.

67. An inflatable liferaft can be launched by _____.

- (A) the float-free method ONLY
- (B) throwing the entire container overboard and then pulling on the operating cord to inflate the raft
- (C) breaking the weak link on the painter
- (D) removing the securing straps

If choice B is selected set score to 1.

68. What precaution should be taken when testing a line throwing gun?

- (A) Fire it at an angle of approximately 90 degrees to the horizon.
- (B) Never remove the line from the rocket.
- (C) Wear asbestos gloves.
- (D) All of the above

If choice B is selected set score to 1.

69. The external inflation bladder on an immersion suit should be inflated _____.

- (A) after one hour in the water
- (B) after you enter the water
- (C) after you notice that your suit is losing buoyancy
- (D) before you enter the water

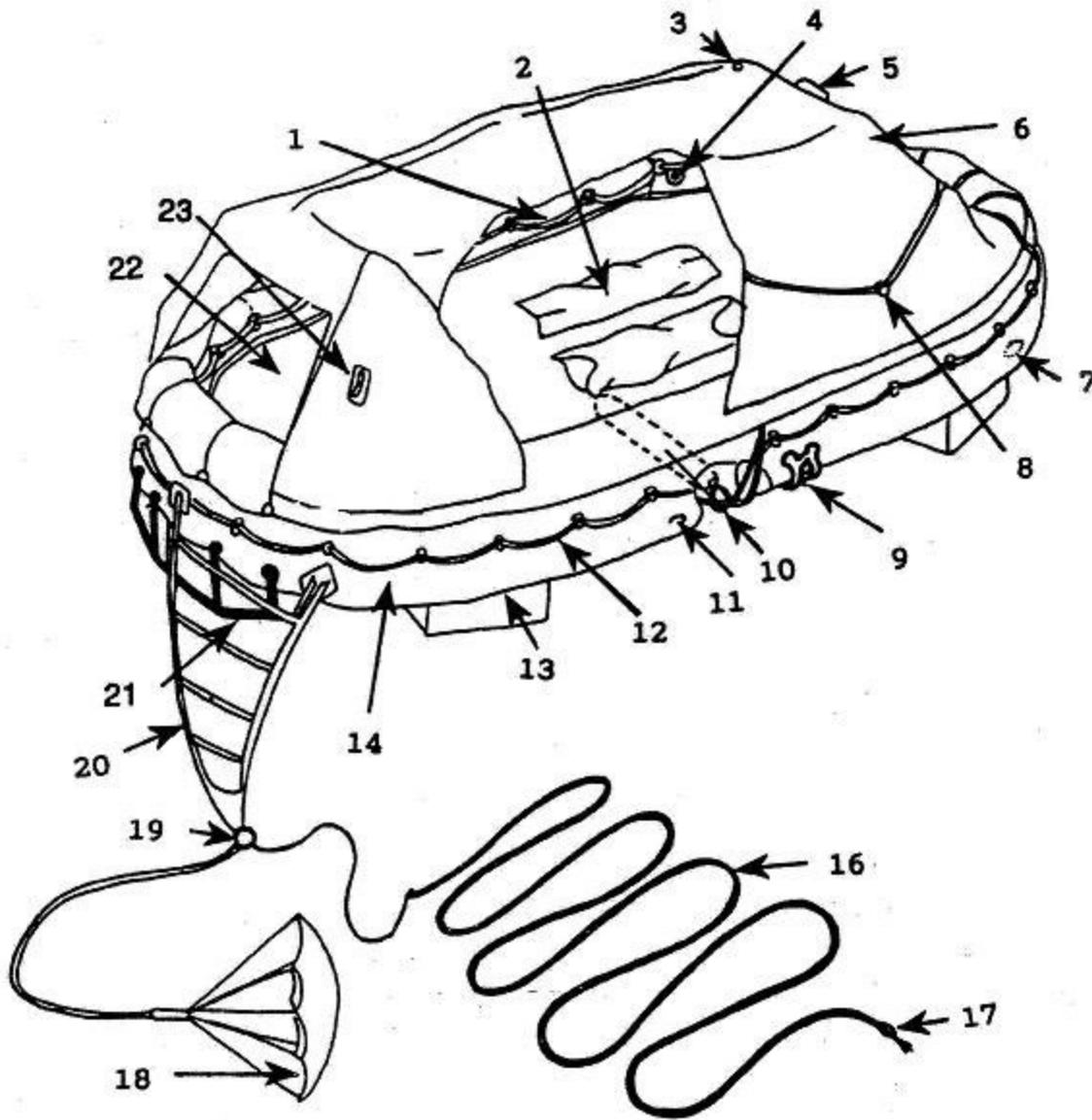
If choice B is selected set score to 1.

70. Life jackets should be marked with the _____.

- (A) stowage space assigned
- (B) vessel's name
- (C) maximum weight allowed
- (D) vessel's home port

If choice B is selected set score to 1.

D014SA



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