

U.S.C.G. Merchant Marine Exam

Master or Mate Less than 200 Gross Registered Tons

Q151 Deck Safety

(Sample Examination)

Choose the best answer to the following Multiple Choice Questions.

1. 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.

2. 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.

3. Where are the grab rails of a metal lifeboat normally located?

- (A) Along the turn of the bilge
- (B) Near the top of the gunwale
- (C) Along each side of the keel
- (D) At the bow and at the stern

If choice A is selected set score to 1.

4. Which statement is TRUE concerning gasoline vapors on board a vessel?

- (A) They are heavier than air and will settle in the lowest part of the vessel.
- (B) They should be vented into the engine to improve combustion.
- (C) They should be vented into the wheelhouse.
- (D) They are lighter than air and will settle in the highest part of the vessel.

If choice A is selected set score to 1.

5. If a gasoline engine turns over freely but will not start, the cause is generally _____.

- (A) weak valve springs
- (B) a defective ignition system
- (C) low lube oil level
- (D) too heavy a load

If choice B is selected set score to 1.

6. Which of the following when removed will extinguish a fire?

- (A) Sodium
- (B) Oxygen
- (C) Nitrogen
- (D) Carbon dioxide

If choice B is selected set score to 1.

7. 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.

8. A safe fuel system must _____.

- (A) be liquid- and vapor-tight
- (B) supply sufficient air to the intake manifold
- (C) have proper air/gasoline fuel mixture ratio
- (D) prevent engine overheating

If choice A is selected set score to 1.

9. Fires are grouped into what categories?

- (A) Flammable solids, liquids, and gases
- (B) Type 1, 2, 3, and 4
- (C) Combustible solids, liquids, and gases
- (D) Class A, B, C, and D

If choice D is selected set score to 1.

10. The exhaust pipe must be gas tight throughout its entire length otherwise _____.

- (A) the joint gaskets may be blown
- (B) carbon monoxide may enter the interior of the vessel
- (C) entry of air may cause vapor lock
- (D) bilge water may enter the exhaust pipe

If choice B is selected set score to 1.

11. Horizontal transverse motion of a vessel is known by which term?

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

If choice B is selected set score to 1.

12. In illustration D033DG below, what is the area indicated by the letter G is known as?

- (A) turn of the bilge
- (B) garboard
- (C) stringer plate
- (D) entrance

If choice A is selected set score to 1.

13. Which term defines the vertical structural members attached to the floors that add strength to the floors?

- (A) Buckler plates
- (B) Stiffeners
- (C) Breast hooks
- (D) Boss plates

If choice B is selected set score to 1.

14. When should you first have any food or water after boarding a lifeboat or liferaft?

- (A) After 12 hours
- (B) After 24 hours
- (C) Within 48 hours
- (D) Some food and water should be consumed immediately and then not until 48 hours later.

If choice B is selected set score to 1.

15. If an inflatable liferaft inflates upside down, you can right it by taking which action?

- (A) Getting at least three or four men to push down on the side containing the CO2 cylinder
- (B) Standing on the CO2 bottle, holding the bottom straps, and throwing your weight backwards
- (C) Pushing up on one side of the raft
- (D) doing nothing; it will right itself after the canopy supports inflate

If choice B is selected set score to 1.

16. 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.

17. When fighting fires in spaces containing bottles of LPG (liquefied petroleum gas), which is the most prudent action to take?

- (A) Attempt to isolate the fire from the LPG
- (B) Place insulating material over the bottles
- (C) See that the valves on all LPG bottles are closed
- (D) Cool the bottles or remove them from the fire area

If choice D is selected set score to 1.

18. The percentage of the total surface area or volume of a flooded compartment that can be occupied by water caused by damage defines which term?

- (A) One compartment standard
- (B) Permeability
- (C) Form gain
- (D) Center of flotation

If choice B is selected set score to 1.

19. What is the color of the signal flare sent up by a submarine about to surface due to an emergency condition?

- (A) Green
- (B) Yellow
- (C) White
- (D) Red

If choice D is selected set score to 1.

20. Which term describes the geometric center of the underwater volume of a vessel?

- (A) Center of buoyancy
- (B) Tipping center
- (C) Center of gravity
- (D) Center of flotation

If choice A is selected set score to 1.

21. Which officer is responsible for the sanitary condition of the engineering department?

- (A) Chief Mate
- (B) First Assistant
- (C) Chief Engineer
- (D) Master

If choice C is selected set score to 1.

22. What entry would NOT be shown on the V line of an AMVER report?

- (A) NURSE
- (B) MD
- (C) MT
- (D) PA

If choice C is selected set score to 1.

23. When the handle of an all-purpose nozzle is in the vertical position and without an applicator, the all-purpose nozzle will _____.

- (A) produce a straight stream
- (B) produce high-velocity fog
- (C) produce low-velocity fog
- (D) shut off the water

If choice B is selected set score to 1.

24. Deficient oxygen content inside a chain locker can be detected with which item?

- (A) An oxygen indicator
- (B) An oxygen breathing apparatus
- (C) A combustible gas indicator
- (D) Litmus paper

If choice A is selected set score to 1.

25. When positive stability exists, what does GZ represent?

- (A) Metacentric height
- (B) Righting arm
- (C) Center of gravity
- (D) Righting moment

If choice B is selected set score to 1.

26. How should you warm up a diesel engine that has not been run for some time?

- (A) Idle for a brief period of time and then warm up at half speed.
- (B) Bring it up to top speed immediately and run until warmed up.
- (C) Inject ether into the air intake to shorten warm up time.
- (D) Run it at minimum speed until warmed to operating temperature.

If choice A is selected set score to 1.

27. What factor is essential to the proper operation of a radiator cooled engine?

- (A) Cooling water pressure
- (B) Jacket water treatment
- (C) Low heat of combustion
- (D) Air flow through the radiator

If choice D is selected set score to 1.

28. When shoring a damaged bulkhead, effort should be taken to spread the pressure over the _____.

- (A) nearest longitudinal girder
- (B) nearest watertight door
- (C) minimum possible area
- (D) maximum possible area

If choice D is selected set score to 1.

29. When electrical equipment is involved in a fire, where should the stream of dry chemicals be directed?

- (A) Aimed at the source of the flames
- (B) Used to shield against electrical shock
- (C) Shot off a flat surface onto the flames
- (D) Fogged above the equipment

If choice A is selected set score to 1.

30. Using a sea anchor will accomplish which of the following?

- (A) Aid in the maneuverability of the liferaft
- (B) Reduce your drift rate
- (C) Increase your visibility
- (D) Keep the liferaft from turning over

If choice B is selected set score to 1.

- 31.** 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.

- 32.** Your vessel has been damaged and you must shore a bulkhead. How should you cut the shore?
- (A) Cut approximately 1/2 inch shorter than the measured length to allow for wedges
 - (B) Cut approximately 1/2 inch longer than the measured length to allow for trimming
 - (C) Cut approximately 1/2 inch shorter per foot of shoring to allow for wet expansion
 - (D) Cut to the same length as the measured length

If choice A is selected set score to 1.

- 33.** When transferring survivors from an enclosed lifeboat to a rescue vessel, personnel on board the boat should take which action?
- (A) Remain seated inside and make the transfer one person at a time
 - (B) Enter the water and swim over to the rescue vessel
 - (C) Remove their life preservers to make it easier to climb on board the rescue vessel
 - (D) Climb on top of the boat while waiting for their turn to transfer to the rescue vessel

If choice A is selected set score to 1.

- 34.** 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.

- 35.** 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.

36. Which toxic gas is a product of incomplete combustion, and is often present when a fire burns in a closed compartment?

- (A) Carbon dioxide
- (B) Carbon monoxide
- (C) Hydrogen sulfide
- (D) Nitric oxide

If choice B is selected set score to 1.

37. A moment is obtained by multiplying a force by its _____.

- (A) lever arm
- (B) point of application
- (C) couple
- (D) moment of inertia

If choice A is selected set score to 1.

38. 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.

39. When carrying out a parallel track search pattern, the course of the search units should normally be which of the following?

- (A) In the same direction as the anticipated drift
- (B) Downwind
- (C) Perpendicular to the line of anticipated drift
- (D) In the opposite direction of the anticipated drift

If choice A is selected set score to 1.

40. What is the function of wearing rings found on some centrifugal pumps?

- (A) Isolate the outlet side from the inlet side
- (B) Absorb erosion of high-velocity discharge stream
- (C) Dampen the turbulent discharge flow
- (D) Seal pump shaft against entry of air

If choice A is selected set score to 1.

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

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

If choice B is selected set score to 1.

42. 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.

43. You are fighting a class "B" fire with a portable dry chemical extinguisher. How should the discharge be directed at the fire?

- (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.

44. Which term describes the time required to incline the vessel from port to starboard and back to port again?

- (A) Initial stability
- (B) Rolling period
- (C) Inclining moment
- (D) Range of stability

If choice B is selected set score to 1.

45. With the air supply on, which is TRUE concerning the air pressure in an enclosed lifeboat?

- (A) The pressure inside the craft will be equal to or less than the outside air pressure
- (B) The pressure inside the craft is required to be less than outside air pressure
- (C) The pressure inside the craft will be equal to or greater than the outside air pressure
- (D) The pressure changes in relation to the speed of the craft

If choice C is selected set score to 1.

46. Normally, before taking drinking water on board in the U.S. or its possessions, the responsible person from the vessel should determine which information about the water source?

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

If choice B 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. If an engine shuts down due to high jacket water temperature, what action should be taken?

- (A) Slowly add cool water to the expansion tank
- (B) Back flush the cooling water system
- (C) Allow engine to cool gradually
- (D) Open crankcase explosion covers

If choice C is selected set score to 1.

49. The deck beam brackets of a transversely framed vessel resist which stresses?

- (A) Hogging stresses
- (B) Racking stresses
- (C) Sagging stresses
- (D) Shearing stresses

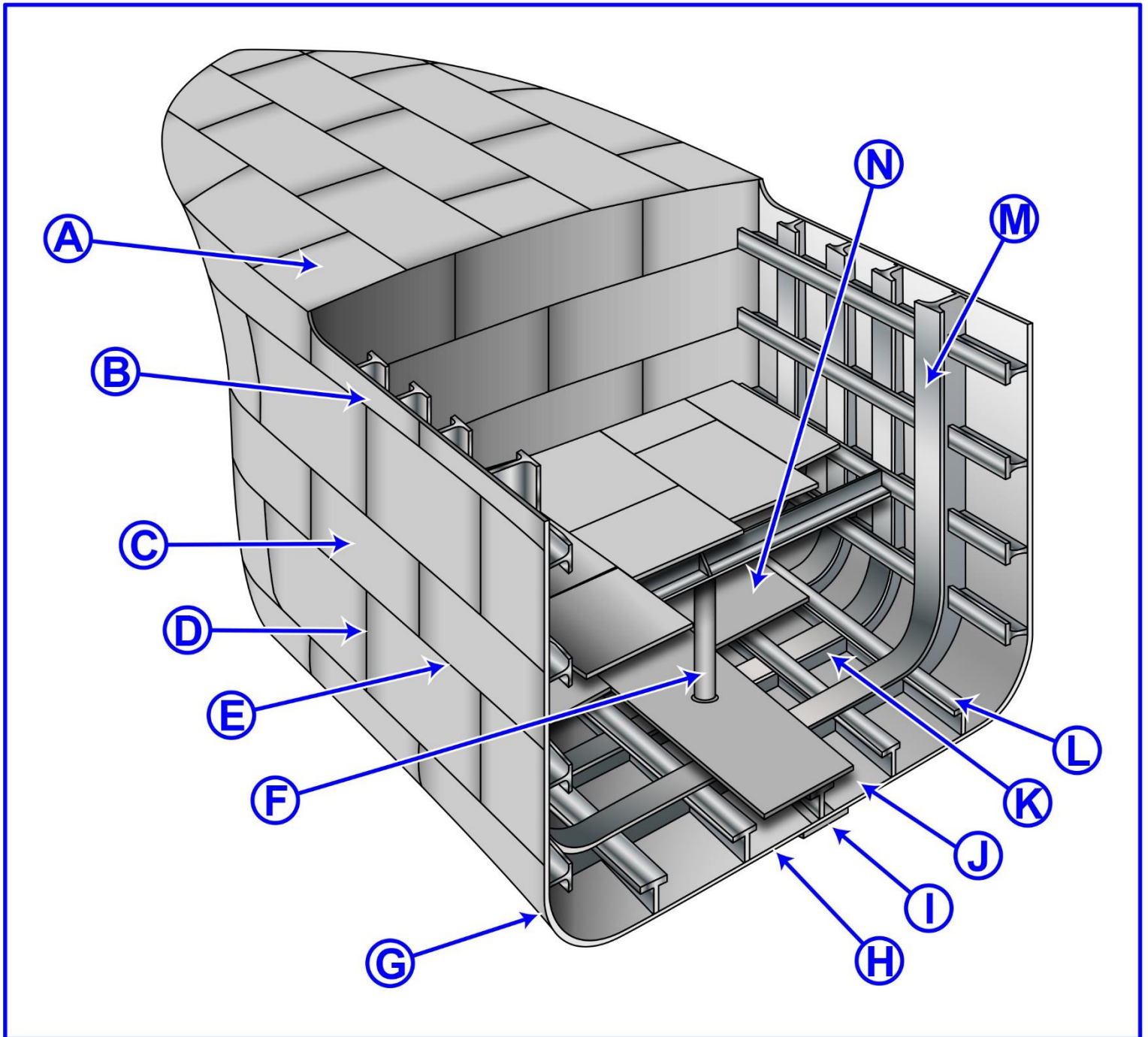
If choice B is selected set score to 1.

50. Your vessel has an injured crew member onboard that will require evacuation. Which of the following publications should you review for the procedures in conducting rescue/medivac helicopter operations?

- (A) Pub 117 Radio Aids to Navigation
- (B) Merchant Marine Officers Handbook
- (C) International Maritime Organization Life-Saving Appliance Code Manual
- (D) International Aeronautical and Maritime Search and Rescue Manual

If choice D is selected set score to 1.

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NAVEDTRA 14119

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