

U.S.C.G. Merchant Marine Exam

Master Less than 500-1600 Gross Registered Tons Rivers

Q387 Deck Safety

(Sample Examination)

Choose the best answer to the following Multiple-Choice Questions.

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

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

Correct answer: B

2. The atmosphere in a tank is too rich when it is _____.

- A. incapable of supporting combustion because the hydrocarbon vapor content makes the atmosphere below the LFL (Lower Flammable Level)
- B. incapable of supporting combustion because the hydrocarbon vapor content makes the atmosphere above the UFL (Upper Flammable Limit)
- C. capable of supporting combustion
- D. in a noncombustible state which can be relied on to occur naturally on a regular basis

Correct answer: B

3. Fighting a fire in the galley poses which additional threat?

- A. Contaminating food with extinguishing agent
- B. A grease fire in the ventilation system
- C. Spreading through the engineering space
- D. The loss of stability

Correct answer: B

4. Which defines the "flammable limits" of an atmosphere?

- A. The upper and lower pressures between which an atmosphere will not burn
- B. The two temperatures between which an atmosphere will self-ignite
- C. The two temperatures between which an atmosphere will burn if an ignition source is present
- D. The upper and lower percentage of vapor concentrations in an atmosphere which will burn if an ignition source is present

Correct answer: D

5. A fire starts in a switchboard due to a short circuit. This is which class of fire?

- A. Class A
- B. Class B
- C. Class C
- D. Class D

Correct answer: C

6. The outlet at a fire hydrant may be positioned anywhere from horizontal to pointing in which direction(s)?
- A. 45° upward
 - B. Vertically downward
 - C. Vertically upward
 - D. All of the above

Correct answer: B

7. Why is carbon dioxide (CO₂) better than dry chemical for fighting a class "C" fire?
- A. The dry chemical is a conductor.
 - B. The dry chemical leaves a residue.
 - C. It takes smaller amounts of CO₂ to cover the same area.
 - D. CO₂ will not dissipate in air.

Correct answer: B

8. Which type of fire is the foam (stored-pressure type) fire extinguisher effective on?
- A. Classes B & C
 - B. Classes A & B
 - C. Classes A & C
 - D. All of the above

Correct answer: B

9. 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 only enter a port in the danger zone during hours of darkness
 - B. You should attempt to coordinate with the Shipping Control Team
 - C. When over 200 miles from a port in the danger zone, you should not darken ship
 - D. If on a coastwise voyage along the east coast of the U.S., you should put into the nearest port

Correct answer: B

10. 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.

Correct answer: B

11. You have abandoned ship in rough weather. After picking up other survivors in your liferaft, what should you do next?
- A. Prepare for the arrival of rescue units.
 - B. Decide on food and water rations.
 - C. Top up the buoyancy tubes.
 - D. Deploy the sea anchor

Correct answer: D

12. 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

Correct answer: D

13. A fuel line breaks, sprays fuel on the hot exhaust manifold and catches fire. What should be your FIRST action?

- A. Secure the fuel supply
- B. Start the fire pump
- C. Batten down the engine room
- D. Apply carbon dioxide to the fire

Correct answer: A

14. Oil fires are best extinguished by _____.

- A. cutting off the supply of oxygen
- B. spraying with water
- C. removing the fuel
- D. cooling below the ignition temperature

Correct answer: A

15. You are trying to rescue survivors from a wrecked vessel on fire. How should you make your approach?

- A. To windward of the wrecked vessel
- B. To leeward of the wrecked vessel
- C. At a speed of at least that of the wrecked vessel
- D. At a speed of at most one-half that of the wrecked vessel

Correct answer: A

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

Correct answer: A

17. You are on watch and receive word that a person has fallen overboard from the starboard side. What should your first action be?

- A. Put the wheel hard right
- B. Sound the man overboard alarm
- C. Put the engines full astern
- D. Notify the Master

Correct answer: A

18. If you see an individual fall overboard, which action(s) should you take?

- A. Pass the word to the bridge
- B. Throw him/her a life buoy
- C. Hail "man overboard"
- D. All of the above

Correct answer: D

19. The vessel shown in illustration D025DG has broken down and you are going to take her in tow. The wind is on her starboard beam. Both vessels are making the same amount of leeway. Where should you position your vessel when you start running lines?

- A. A
- B. B
- C. C
- D. D

Correct answer: C

20. The vessel shown in illustration D025DG has broken down and you are going to take her in tow. The wind is on her starboard beam. She is making more leeway than you. Where should you position your vessel when you start running lines?

- A. A
- B. B
- C. C
- D. D

Correct answer: D

21. Your vessel has been damaged and is taking on water, but you do not require immediate assistance. How would you preface a message advising other vessels of your situation?

- A. Mayday-Mayday-Mayday
- B. SOS-SOS-SOS
- C. Pan-Pan (3 times)
- D. Securite-Securite-Securite

Correct answer: C

22. With what other stations may portable survival craft transceivers communicate?

- A. Communication is permitted between survival craft.
- B. Communication is permitted between survival craft and ship.
- C. Communication is permitted between survival craft and rescue unit.
- D. All of the above

Correct answer: D

23. If an airplane circles a vessel 3 times, crosses the vessel's course close ahead while rocking the wings, and heads off in a certain direction, what does this indicate?

- A. Someone is in distress in that direction and the vessel should follow and assist.
- B. The plane is going to drop a package and wishes the vessel to recover it.
- C. The plane is in distress and will have to ditch.
- D. There is danger ahead and the best course is indicated by the direction of the aircraft.

Correct answer: A

24. You have sent a visual signal to an aircraft. The aircraft then flies over your position on a straight course and level altitude. What should you do?

- A. Send more signals
- B. Prepare for a helicopter pickup
- C. Repeat your signal
- D. Change course to follow the airplane

Correct answer: C

25. When using the term "limber system" one is referring to which system?

- A. A drainage system
- B. A weight reduction system
- C. A cleaning system
- D. A strengthening system

Correct answer: A

26. Which term is used to describe the projecting lugs of the rudderpost which furnish support to the rudder?

- A. Bases
- B. Gudgeons
- C. Rudder lugs
- D. Pintles

Correct answer: B

27. What is the space above the engine room called?

- A. Middle hatch
- B. Noble
- C. Gold locker
- D. Fidley

Correct answer: D

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

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

Correct answer: D

29. The total weight of cargo, fuel, water, stores, passengers and crew, and their effects, that a ship can carry, is known as which term?

- A. Gross tonnage
- B. Loaded displacement
- C. Deadweight
- D. Bale cubic

Correct answer: C

30. Assuming an even transverse distribution of weight in a vessel, which condition could cause a list?

- A. Having KG smaller than KM
- B. Empty double bottoms and lower holds, and a heavy deck cargo
- C. Having a small positive righting arm
- D. Flooding the forepeak to correct the vessel's trim

Correct answer: B

31. The important initial stability parameter, GM, is which of the following?

- A. The height of the center of gravity above the keel
- B. The height of the metacenter above the keel
- C. The height of the center of buoyancy above the keel
- D. The metacentric height

Correct answer: D

32. A ship's forward draft is 22'-04" and its after draft is 23'-00". The draft amidships is 23'-04". Using this information, where is the concentration of weight on the vessel?

- A. At the bow
- B. Amidships
- C. At the ends
- D. In the lower holds

Correct answer: B

33. Which is the best action to take when plugging holes below the waterline for the safety of the vessel?

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

Correct answer: D

34. Small hull leaks can be temporarily repaired by _____.

- A. seizing
- B. caulking
- C. parbuckling
- D. parceling

Correct answer: B

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

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

Correct answer: C

36. Which statement is TRUE concerning the mechanical gearing of deck machinery such as the windlass or boat hoists?

- A. It shall always 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 for safety
- D. Mechanical gearing shall have a guard over any rotating components

Correct answer: D

37. Why should all electrical appliances aboard a vessel be grounded and ground fault protected?

- A. To prevent them from falling when the vessel rolls
- B. To protect personnel from electrical shock
- C. To prevent unauthorized personnel from operating them
- D. To increase their operating efficiency

Correct answer: B

38. What power source actuates a solenoid valve?

- A. Electric current
- B. Hydraulic pressure
- C. Air pressure
- D. Mechanical force

Correct answer: A

39. Where a propeller shaft passes through the hull, which device prevents water from entering the hull?

- A. Stuffing box
- B. Stop-water
- C. Sea cock
- D. Propeller boss

Correct answer: A

40. Which is the most serious effect of air trapped in a non-treated diesel engine jacket water cooling system?

- A. It reduces the ability of the system to cool the engine
- B. It accelerates formation of metal plating
- C. It can form pockets which block the flow of coolant through the system
- D. The air causes corrosion

Correct answer: D

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

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

Correct answer: C

42. How do you determine the weight of the vessel that is supported by the ground when a vessel has run aground?

- A. Determine the point where aground and the draft at that point, then calculate it using the grounding formula.
- B. Use the inclining experiment formula and substitute the change of trim for the angle of list.
- C. This requires extensive calculation and is usually performed only by a naval architect not by a ship's officer.
- D. Use the hydrostatic tables and enter with the mean draft before grounding and the mean draft after grounding.

Correct answer: D

43. What will a sea anchor accomplish if deployed correctly?

- A. increase your visibility
- B. keep the liferaft from turning over
- C. reduce the drift rate of the liferaft
- D. aid in recovering the liferaft

Correct answer: C

44. What is the name given to the bottom row of plating next to the keel of a lifeboat?

- A. Bilge strake
- B. Keel rib
- C. Garboard strake
- D. Sheer strake

Correct answer: C

45. How is the inside light in an inflatable liferaft activated?

- A. At night via photosensitive switch
- B. Automatically as the liferaft inflates
- C. With a switch near the boarding handle
- D. By screwing the bulb in after the raft is inflated

Correct answer: B

46. 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

Correct answer: D

47. Great Lakes vessels, using liferafts, must have sufficient liferaft capacity on each side of the vessel to accommodate how many persons onboard?

- A. 100% of the persons normally assigned to those spaces
- B. 150% of the crew
- C. 100% of the persons on board
- D. 50% of the persons on board

Correct answer: C

48. Which is TRUE concerning a certified lifeboat operator assigned to command a lifeboat?

- A. Must have a list of the persons assigned to the lifeboat
- B. Must drain the hydraulic pressure before lowering the craft
- C. They should be the first individual to board the craft
- D. Must be the brakeperson actually lowering the boat

Correct answer: A

49. Normally, your vessel is on a voyage of three months duration. How many sanitary inspections are required to be conducted during the voyage?

- A. one
- B. three
- C. six
- D. twelve

Correct answer: A

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

Correct answer: B



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