

U.S.C.G. Merchant Marine Exam

Master Less than 100 GRT to Master or Mate
Less than 200 GRT Rivers

Q400 Navigation and Deck General - Safety

(Sample Examination)

1. 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.

2. The breaking strength of the service lines of the rockets used with an impulse-projected, rocket type line throwing appliances is _____.
- (A) 300 lbs
 - (B) 500 lbs
 - (C) 1000 lbs
 - (D) 1500 lbs

If choice B is selected set score to 1.

3. Given a dry bulb temperature of 78°F and wet bulb temperature of 66.5°F, the dew point is _____.
- (A) 47.0°F
 - (B) 51.5°F
 - (C) 59.0°F
 - (D) 70.0°F

If choice C is selected set score to 1.

4. When fruit is carried as refrigerated cargo, the most frequent cause of its being infected at the discharge port is _____.
- (A) carriage at the wrong temperature
 - (B) improper cleaning of the cargo spaces
 - (C) improper pre-cooling of the cargo spaces
 - (D) leaks in the ship's refrigeration system

If choice B is selected set score to 1.

5. To coil a left-hand laid rope, you should coil the line in _____.
- (A) either a clockwise or a counterclockwise direction
 - (B) a counterclockwise direction only
 - (C) an alternating clockwise and counterclockwise direction
 - (D) a clockwise direction only

If choice B is selected set score to 1.

6. You have berthed in a port area with other tank vessels. What signal is displayed by a vessel to indicate it is transferring flammable or combustible liquid cargo?
- (A) A red light visible all around the horizon
 - (B) An illuminated red and yellow caution flag
 - (C) A green light visible all around the horizon
 - (D) A flashing yellow light

If choice A is selected set score to 1.

7. Which list of clouds is in sequence, from highest to lowest in the sky?
- (A) Altostratus, cirrostratus, stratus
 - (B) Stratus, cirrostratus, altostratus
 - (C) Cirrostratus, altostratus, stratus
 - (D) Altostratus, stratus, cirrostratus

If choice C is selected set score to 1.

8. Which statement is FALSE concerning precautions during fueling operations?
- (A) Fuel tanks should be topped off with no room for expansion.
 - (B) A fire extinguisher should be kept nearby.
 - (C) All engines, motors, fans, etc. should be shut down when fueling.
 - (D) All windows, doors, hatches, etc. should be closed.

If choice A is selected set score to 1.

9. 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.

10. Which letter shown in illustration D030DG below represents a clove hitch?
- (A) U
 - (B) R
 - (C) T
 - (D) X

If choice D is selected set score to 1.

11. 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.

12. 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.

13. 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.

14. Which action(s) is/are included in crane operations?

- (A) Removing booms from stowage
- (B) Pre-operation checks and start-up
- (C) Luff, slew, and hoist operations
- (D) All of the above

If choice D is selected set score to 1.

15. The galley on your cargo vessel has an area of 2,500 square feet. What would fulfill the minimum requirements for fire protection?

- (A) One B-I extinguisher
- (B) One B-II extinguisher
- (C) One B-II and one C-II extinguisher
- (D) One B-V extinguisher

If choice B is selected set score to 1.

16. 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.

17. The boom indicator on a crane will indicate the _____.

- (A) lifting capacity of the boom
- (B) direction of the boom
- (C) length of the boom
- (D) angle of the boom

If choice D is selected set score to 1.

18. The wire rope used for cargo handling on board your vessel has a safe working load of eight tons. It shall be able to withstand a breaking test load of _____.

- (A) 32 tons
- (B) 40 tons
- (C) 48 tons
- (D) 64 tons

If choice B is selected set score to 1.

19. If you are loading fruit in reefer spaces and you notice that the fruit is beginning to mold, you should _____.

- (A) carry the cargo at a cooler temperature than originally planned
- (B) discharge CO₂ into the compartment after loading
- (C) refuse to carry the cargo
- (D) write up exceptions on the cargo

If choice D is selected set score to 1.

20. A Chinese stopper (two lines) will hold best when you _____.

- (A) twist the ends together and hold them at right angles to the mooring line
- (B) twist the ends together and hold them in the direction opposite to the pull
- (C) fasten the bitter ends to the mooring line with half hitches
- (D) twist the ends together and hold them in the direction of the pull

If choice D is selected set score to 1.

21. The standing part of a tackle is _____.

- (A) the hook that engages the weight to be moved
- (B) that part to which power is applied
- (C) all the fall except the hauling part
- (D) that part of the falls made fast to one of the blocks

If choice D is selected set score to 1.

22. You should log all barometer readings taken at sea _____.

- (A) at least once during each watch
- (B) regularly
- (C) more often under changeable weather conditions
- (D) All of the above

If choice D is selected set score to 1.

23. By convention, the Earth's south magnetic pole is colored _____.

- (A) red
- (B) blue
- (C) white
- (D) black

If choice A is selected set score to 1.

24. Which publication lists Class I and II private aids to navigation in or along navigable waters of the United States?

- (A) Light List
- (B) Sailing Directions
- (C) Aids to Navigation Manual
- (D) List of Private Aids

If choice A is selected set score to 1.

25. Anticyclones are usually characterized by _____.

- (A) dry, fair weather
- (B) high winds and cloudiness
- (C) overcast skies
- (D) gustiness and continuous precipitation

If choice A is selected set score to 1.

26. In many areas "atoll" clouds (clouds of vertical development) are produced over small islands. These are the result of _____.

- (A) warm air from the sea rising over higher land areas
- (B) descending air over the islands
- (C) rising air currents produced by the warm islands
- (D) cool land air mixing with warm sea air

If choice C is selected set score to 1.

27. When compared to air temperature, which factor is most useful in predicting fog?

- (A) Absolute humidity
- (B) Dew point
- (C) Barometric pressure
- (D) Vapor pressure

If choice B is selected set score to 1.

28. The wind circulation around a high pressure center in the Northern Hemisphere is _____.

- (A) counterclockwise and moving towards the high
- (B) counterclockwise and moving outward from the high
- (C) clockwise and moving towards the high
- (D) clockwise and moving outward from the high

If choice D is selected set score to 1.

29. What agency of the U.S. Government issues charts of U.S. waters and Coast Pilots?

- (A) U.S. Naval Observatory
- (B) National Ocean Service
- (C) U.S. Coast Guard
- (D) National Imagery and Mapping Agency

If choice B is selected set score to 1.

30. The Light List Does NOT contain information on _____.

- (A) radio beacon systems
- (B) radio direction finder calibration stations
- (C) aeronautical lights useful for marine navigation
- (D) the Global Positioning System (GPS)

If choice C is selected set score to 1.

31. Sweat damage will occur in a cargo hold containing cased machinery when the _____.

- (A) outside air temperature is colder than the temperature of the cargo
- (B) air temperature of the hold is higher than the temperature of the outside air
- (C) dew point of the hold is higher than the temperature of the ship's skin
- (D) dew point of the outside air is lower than the temperature of the cargo

If choice C is selected set score to 1.

32. Portable fire extinguishers must be provided for the cargo tank area of an unmanned tank barge _____.

- (A) only when fully loaded
- (B) when transferring cargo
- (C) if one or more tanks are full
- (D) only when the barge is being towed

If choice B is selected set score to 1.

33. A flame screen _____.

- (A) prevents the passage of flammable vapors
- (B) permits the passage of vapor but not of flame
- (C) permits vapors to exit but not enter a tank
- (D) prevents inert gas from leaving a tank

If choice B is selected set score to 1.

34. How should cargo tank hatches be protected when the ullage opening is open and the tank NOT gas free?

- (A) With gooseneck vents
- (B) With flame screens
- (C) With warning signs
- (D) With pressure-vacuum relief valves

If choice B is selected set score to 1.

35. Open ullage holes in tanks which are not gas-free must be protected by _____.

- (A) stop-check valves
- (B) warning signs
- (C) PV valves
- (D) flame screens

If choice D is selected set score to 1.

36. In reference to accidental oil pollution, the most critical time during bunkering is when _____.

- (A) final topping off is occurring
- (B) hoses are being disconnected
- (C) you first start to receive fuel
- (D) hoses are being blown down

If choice A is selected set score to 1.

37. A precaution you should take before bunkering is to _____.

- (A) plug the sounding pipes
- (B) plug the scuppers
- (C) close the lids on the vents
- (D) plug the vents

If choice B is selected set score to 1.

38. You have determined that a cargo space on a freight vessel is 45 feet by 36 feet by 62 feet. How many pounds of carbon dioxide is required for this space?

- (A) 1674
- (B) 2511
- (C) 3348
- (D) 5022

If choice C is selected set score to 1.

39. The number of fire axes required to be carried on a cargo vessel of 14,000 GT and on an international voyage is _____.

- (A) 4
- (B) 6
- (C) 8
- (D) 12

If choice C is selected set score to 1.

40. What is the minimum number of fire pumps required on a cargo vessel of 2,000 GT?

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

If choice B is selected set score to 1.

41. On an inspected vessel, when may a stability test may be dispensed with?

- (A) vessel is of a proven design
- (B) projected cost is unreasonable
- (C) Coast Guard does not have a qualified inspector available
- (D) Coast Guard has the approved stability test results of a sister vessel

If choice D is selected set score to 1.

42. On an inspected vessel, which abbreviation refers to the horizontal distance between perpendiculars taken at the forward-most and the after-most points on the waterline at her deepest operating draft?

- (A) LLL
- (B) LBP
- (C) LWL
- (D) LOA

If choice B is selected set score to 1.

43. The trim and stability booklet must be approved by the _____.

- (A) International Maritime Organization
- (B) National Cargo Bureau
- (C) Society of Naval Architects and Marine Engineers
- (D) United States Coast Guard

If choice D is selected set score to 1.

44. Inflatable liferafts shall be serviced at an approved servicing facility every 12 months or not later than the next vessel inspection for certification. However, the total elapsed time between servicing cannot exceed _____.

- (A) 12 months
- (B) 15 months
- (C) 17 months
- (D) 18 months

If choice C is selected set score to 1.

45. If you reach shore in a liferaft, the first thing to do is _____.

- (A) set the raft back out to sea so someone may spot it
- (B) drag the raft ashore and lash it down for a shelter
- (C) find some wood for a fire
- (D) get the provisions out of the raft

If choice B is selected set score to 1.

46. What size bilge pump is required for a lifeboat which has a capacity of 675 cubic feet?

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

If choice B is selected set score to 1.

47. An emergency sea anchor may be constructed by using _____.

- (A) a boat bucket
- (B) an air tank filled with water
- (C) an oar and canvas weighted down
- (D) All of the above

If choice D is selected set score to 1.

48. What could be a result of insufficient lubrication of lifeboat winches and davits?

- (A) Corroding of sheaves on the davits so they will not rotate
- (B) Moisture accumulation in winch motor damaging the electrical wiring
- (C) Freezing of gears in cold weather
- (D) All of the above

If choice D is selected set score to 1.

49. 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

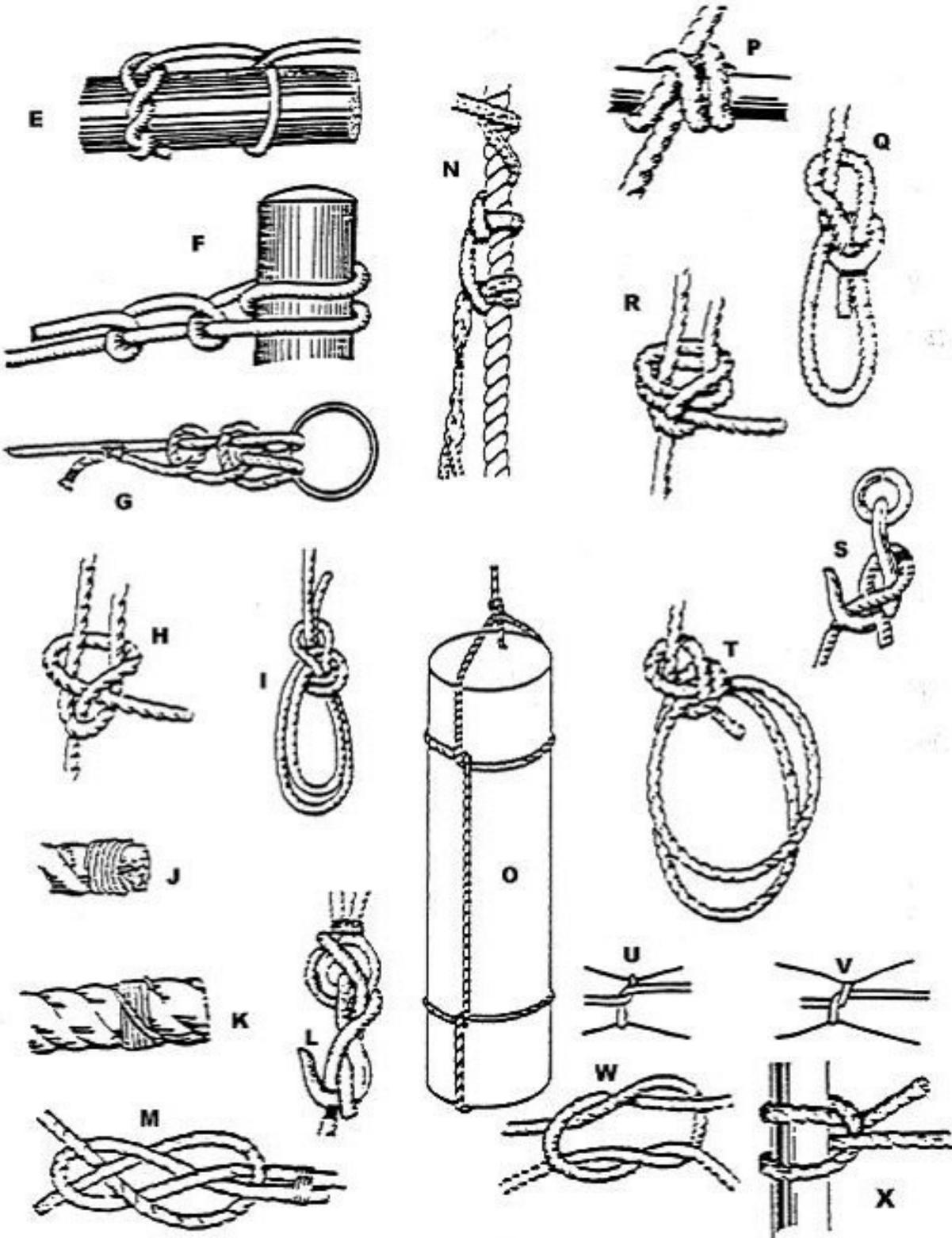
If choice D is selected set score to 1.

50. 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.

D030DG



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