

U.S.C.G. Merchant Marine Exam

Master Less than 100 Gross Registered Tons Rivers

Q401 Deck General - Safety

(Sample Examination)

Choose the best answer to the following Multiple Choice Questions.

1. What is the name of the metal, teardrop-shaped object sometimes used within an eyesplice?

- (A) Grommet
- (B) Reinforcement
- (C) Thimble
- (D) Splice form

If choice C is selected set score to 1.

2. Which knot would serve best as a safety sling for a person working over the side?

- (A) Jug sling
- (B) Bowline on a bight
- (C) Lifting hitch
- (D) French bowline

If choice D is selected set score to 1.

3. Which knot shown in illustration D030DG below represents a square knot?

- (A) W
- (B) H
- (C) P
- (D) R

If choice A is selected set score to 1.

4. Which knot in illustration D030DG below represents a double sheet bend?

- (A) R
- (B) T
- (C) L
- (D) F

If choice A is selected set score to 1.

5. Which rope has the greatest breaking strength?

- (A) Nylon
- (B) Manila
- (C) Polypropylene
- (D) Polyethylene

If choice A is selected set score to 1.

6. Which describes the "lay" of a line?

- (A) Its normal location of stowage
- (B) The manner in which it is coiled
- (C) The manner in which it is rigged
- (D) The direction of twist of the strands

If choice D is selected set score to 1.

7. In illustration D044DG below, what is the mooring line labeled "F" called?

- (A) Bow breast line
- (B) Bow line
- (C) Forward spring line
- (D) Bow shore line

If choice A is selected set score to 1.

8. In illustration D044DG below, what is the mooring line labeled "H" called?

- (A) Offshore bow line
- (B) Offshore spring line
- (C) Onshore bow line
- (D) Forward breast line

If choice A is selected set score to 1.

9. Which visual distress signal is acceptable for daylight use only?

- (A) Self-contained rocket-propelled parachute red flare
- (B) Hand-held red flare
- (C) Red aerial pyrotechnic flare
- (D) Hand-held orange smoke distress flare

If choice D is selected set score to 1.

10. What is the normal percentage of oxygen in air?

- (A) 16%
- (B) 18%
- (C) 21%
- (D) 25%

If choice C is selected set score to 1.

11. What is required in addition to the heat, fuel, and oxygen of the fire triangle to have a fire?

- (A) Smoke
- (B) Electricity
- (C) Pressure
- (D) Chain reaction

If choice D is selected set score to 1.

12. Which may ignite fuel vapors?

- (A) Loose wiring
- (B) Static electricity
- (C) An open and running motor
- (D) All of the above

If choice D is selected set score to 1.

13. Where is chafing gear normally used?

- (A) For ground tackle
- (B) On mooring lines
- (C) On the inside of the hawsepipe
- (D) For portable fenders

If choice B is selected set score to 1.

14. What is the purpose of Chafing gear?

- (A) It strengthens mooring lines
- (B) It is used to anchor the boat
- (C) It protects fiber rope from abrasion
- (D) It can pick up heavy loads

If choice C is selected set score to 1.

15. How is the size of wire rope is determined?

- (A) The circumference
- (B) The number of strands
- (C) The diameter
- (D) The number of wires in each strand

If choice C is selected set score to 1.

16. Why would wire rope be galvanized?

- (A) To increase its circumference
- (B) To make it bend more easily
- (C) To increase its strength
- (D) To protect it from corrosion due to contact with saltwater

If choice D is selected set score to 1.

17. When backing down with sternway, where will the pivot point of a vessel be located?

- (A) The pivot point will shift to the bow
- (B) The pivot point will be about one-quarter of the vessel's length from the stern
- (C) The pivot point will be about one-third of the vessel's length from the bow
- (D) The pivot point will be aft of the propellers

If choice B is selected set score to 1.

18. Which expresses the term leeway?

- (A) The difference between the true course and the compass course
- (B) The momentum of a vessel after her engines have been stopped
- (C) The displacement of a vessel multiplied by her speed
- (D) The lateral movement of a vessel downwind of her intended course

If choice D is selected set score to 1.

19. Most of your vessel's superstructure is forward. How will the vessel lie when drifting with no way on?

- (A) With the wind from ahead
- (B) With the wind off the port beam
- (C) With the wind off the starboard beam
- (D) With the wind from abaft the beam

If choice D is selected set score to 1.

20. Which is described as a wedge of water building up between the bow and the nearer bank which forces the bow out and away?

- (A) Combined effect
- (B) Bank suction
- (C) Bend effect
- (D) Bank cushion

If choice D is selected set score to 1.

21. When you enter shallow water, which describes your vessel's rudder response and speed variations?

- (A) The response will be sluggish and your speed will increase
- (B) The response will improve and your speed will increase
- (C) The response will be sluggish and your speed will decrease
- (D) The response will improve and your speed will decrease

If choice C is selected set score to 1.

22. You are making a sharp turn in a channel and using a buoy four points on the bow to gauge your rate of turn. If you observe the buoy moving aft relative to you, what should you do?

- (A) Decrease speed
- (B) Decrease the rate of turn
- (C) Increase the rate of turn
- (D) Maintain a constant rate of turn

If choice C is selected set score to 1.

23. When passing a moored vessel in a narrow channel which actions will help minimize wake damage?

- (A) Go half astern when abeam of the moored vessel
- (B) Check the rudder several times while passing the vessel
- (C) Reduce speed and make a notation in the bell book
- (D) Stay on outside of channel and make a notation in the log book

If choice C is selected set score to 1.

24. The possibility of wake damage can be reduced by following which action?

- (A) Alternate engine speeds
- (B) Apply rudder in both port and starboard directions
- (C) Slow down when passing moored vessels
- (D) Passing close aboard to the moored vessel

If choice C is selected set score to 1.

25. Fire may be spread by which means?

- (A) Conduction of heat to adjacent surfaces
- (B) Convection
- (C) Direct radiation
- (D) All of the above

If choice D is selected set score to 1.

26. Oily rags stored in a pile that is open to the atmosphere are a hazard because they may _____.

- (A) deteriorate and give off noxious gasses
- (B) spontaneously heat and catch fire
- (C) attract lice and other vermin and serve as a breeding ground
- (D) None of the above

If choice B is selected set score to 1.

27. Why do spaces containing batteries require good ventilation?

- (A) Less electrolyte is required to maintain the batteries' charge
- (B) Ventilation avoids flammable gas accumulation
- (C) Ventilation avoids CO₂ build up
- (D) Ventilation supplies extra oxygen for charging the battery

If choice B is selected set score to 1.

28. How can the accumulation of dangerous fumes generated by the storage batteries be prevented?

- (A) Covering the batteries in a nonconducting, solid enclosure
- (B) By natural or mechanical ventilation
- (C) Mounting the batteries in a position as high as possible
- (D) Securing the batteries to vibration reducing mounting brackets

If choice B is selected set score to 1.

29. What is the main advantage of a steady stream of water on a class "A" fire?

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

If choice B is selected set score to 1.

30. Which is the best method of extinguishing a class A fire?

- (A) Cool fuel below ignition temperature
- (B) Smother with CO₂
- (C) Remove oxygen from the area
- (D) Smother fire with foam

If choice A is selected set score to 1.

31. When choosing extinguishers to fight a Class "B" fire do NOT use which type of extinguisher?

- (A) Dry chemical
- (B) Water (cartridge-operated)
- (C) Carbon dioxide
- (D) Foam (stored-pressure type)

If choice B is selected set score to 1.

32. Which extinguishing agent is/are suitable to combat a class B fire in an engine compartment?

- (A) Carbon dioxide
- (B) Foam
- (C) Dry chemical
- (D) All of the above

If choice D is selected set score to 1.

33. A fire in electrical equipment should be extinguished by using which type of extinguishing agent?

- (A) Low-velocity fog
- (B) CO₂
- (C) Salt water
- (D) Foam

If choice B is selected set score to 1.

34. Any extinguishing agent used on a Class "C" fire must have which important property?

- (A) Penetrating power
- (B) Leaves no residue
- (C) Nonconductivity
- (D) Cooling ability

If choice C is selected set score to 1.

35. Which extinguishing agent is the best for use on electrical fires?

- (A) Foam
- (B) Water fog
- (C) Dry chemical
- (D) CO₂

If choice D is selected set score to 1.

36. What is the danger to personnel associated with using carbon dioxide in an enclosed space?

- (A) Frostbite
- (B) An explosive reaction
- (C) Asphyxiation
- (D) Skin burns

If choice C is selected set score to 1.

37. Which statement concerning carbon dioxide is FALSE?

- (A) It cannot be seen.
- (B) It is safe to use near personnel in a confined space.
- (C) It displaces the oxygen in the air.
- (D) It cannot be smelled.

If choice B is selected set score to 1.

38. After using a CO₂ portable extinguisher, it should be _____.

- (A) recharged
- (B) hydrostatically tested
- (C) put back in service if some CO₂ remains
- (D) retagged

If choice A is selected set score to 1.

39. Which extinguishing agent is most likely to allow reflash as a result of not cooling the fuel below its ignition temperature?

- (A) Water stream
- (B) CO₂
- (C) Foam
- (D) Water spray

If choice B is selected set score to 1.

40. If you wear extra clothing when entering the water after abandoning ship it will accomplish which of the following?

- (A) Weigh you down
- (B) Reduce your body heat
- (C) Make it more difficult to breathe
- (D) Help preserve body heat

If choice D is selected set score to 1.

41. If you must enter water on which there is an oil fire, you should _____.

- (A) keep both hands in front of your face to break the water surface when diving head first
- (B) wear very light clothing
- (C) enter the water on the windward side of the vessel
- (D) protect your life preserver by holding it above your head

If choice C is selected set score to 1.

42. What is the MOST important consideration when determining how to fight an electrical fire?

- (A) The amount of toxic fumes created by the extinguisher
- (B) Maintaining electrical power
- (C) Danger of shock to personnel
- (D) Whether the fire is in machinery or passenger spaces

If choice C is selected set score to 1.

43. When possible, what is the FIRST step in fighting an engine fuel-pump fire which results from a broken fuel line?

- (A) Cast the barge off the wharf.
- (B) Secure all engine room doors, hatches, and vents.
- (C) Close the fuel line valve.
- (D) Check the spread of the fire with foam.

If choice C is selected set score to 1.

44. If heavy smoke is coming from the paint locker, what should be the FIRST firefighting response?

- (A) Secure the ventilation
- (B) Open the door to evaluate the extent of the fire
- (C) Enter and use a portable extinguisher
- (D) Release the CO2 flooding system

If choice A is selected set score to 1.

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

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

If choice C is selected set score to 1.

46. You are on a 165 foot (50.3 meters) long vessel with a draft of 9 feet (2.7 meters) and twin screws. Which statement about rescuing a survivor in the water with ship pickup is TRUE?

- (A) You should stop to windward of the man and drift down on him.
- (B) Ship pick up should never be used with a shallow draft vessel.
- (C) A pickup off the weather bow gives maximum maneuverability with the least possibility of injury to the man.
- (D) You should stop with the man on your weather beam and twist the ship up to him.

If choice C is selected set score to 1.

47. A person who observes an individual fall overboard should do which of the following?

- (A) Run to the radio room to send an emergency message
- (B) Call for help and keep the individual in sight
- (C) Go to the control room for the distress flares
- (D) Immediately jump into the water to assist the individual

If choice B is selected set score to 1.

48. On a small boat, if someone fell overboard and you did not know over which side the person fell, which action should you take?

- (A) Stop the propellers from turning and throw a ring buoy over the side
- (B) Increase speed to full to get the vessel away from the person
- (C) First put the rudder hard over in either direction
- (D) Immediately reverse the engines

If choice A is selected set score to 1.

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

If choice D is selected set score to 1.

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

- (A) A
- (B) B
- (C) C
- (D) D

If choice A is selected set score to 1.

51. The Federal Water Pollution Control Act requires the person in charge of a vessel to immediately notify the Coast Guard as soon as he knows of any oil discharge. Failure to notify the Coast Guard can lead to a monetary fine and imprisonment up to what duration?

- (A) 5 years
- (B) 3 years
- (C) 2 years
- (D) 1 years

If choice A is selected set score to 1.

52. Failure to notify the Coast Guard of an oil spill can carry a prison sentence of what duration?

- (A) Not more than 1 year
- (B) Not more than 2 years
- (C) Not more than 3 years
- (D) Not more than 5 years

If choice D is selected set score to 1.

53. Fueling results in the collection of waste oil in drip pans and containers. Which is an approved method of disposing of the waste oil?

- (A) Mixing it with dispersants before draining it overboard
- (B) Discharge to a proper reception facility
- (C) Adding sinking agents and discharging it into the water
- (D) Draining it overboard when the vessel gets underway

If choice B is selected set score to 1.

54. What can be done to prevent small oil spills on deck from going overboard?

- (A) Driving wooden plugs into the vents
- (B) Plugging the drains and scuppers
- (C) Plugging the sounding pipes
- (D) Closing the lids on the vents

If choice B is selected set score to 1.

55. You operate a harbor craft on inland waters exclusively. If you regularly service or contact foreign flag vessels in the course of business, which statement is TRUE?

- (A) A customs official must be on board when contacting a foreign flag vessel.
- (B) Your crew must have identification credentials.
- (C) Your vessel must be inspected.
- (D) All contacts with a foreign flag vessel must be reported to the U.S. Coast Guard.

If choice B is selected set score to 1.

56. When are Operators of Uninspected Passenger Vessels required to keep their Coast Guard credential aboard their vessel?

- (A) only when operating at night
- (B) only when operating more than one mile from shore
- (C) only when carrying passengers for hire
- (D) At all times

If choice C is selected set score to 1.

57. Which is the requirement for the name and hailing port of a documented commercial vessel?

- (A) It is required to be marked on both bows and on the keel
- (B) It is required to be marked on the keel, stern, and both bows
- (C) It is required to be marked on the stern with the name of the vessel marked on both bows
- (D) It is not required to be marked anywhere on the vessel

If choice C is selected set score to 1.

58. A change of a documented vessel's name can only be made by which organization?

- (A) Coast Guard
- (B) American Bureau of Shipping
- (C) Treasury Department
- (D) Commissioner of Customs

If choice A is selected set score to 1.

59. What accident situation is considered a Serious Marine Incident?

- (A) Damage to property in excess of \$100,000
- (B) A discharge of 10,000 gallons or more of oil into navigable waters of the U.S.
- (C) An injury to a crewmember that renders that person unfit to continue working on the vessel
- (D) All of the above

If choice D is selected set score to 1.

60. What is considered a Serious Marine Incident?

- (A) An injury to a crewmember, passenger, or other person which requires professional medical treatment beyond first aid
- (B) A vessel experiencing bottom suction over a sandbar that does not result in injuries and/or any damage to the vessel
- (C) An allision that results in \$500 damage to a boat dock
- (D) None of the above

If choice A is selected set score to 1.

61. In general, how often are sanitary inspections of passenger and crew quarters made aboard passenger vessels in river service?

- (A) Once each day
- (B) Once each week
- (C) Once each month
- (D) Once each trip

If choice C is selected set score to 1.

62. How does good housekeeping prevent fires on a vessel?

- (A) Improving personnel qualifications
- (B) Eliminating potential fuel sources
- (C) Eliminating trip hazards
- (D) Allowing better access in an emergency

If choice B is selected set score to 1.

63. How is the important stability parameter, KG, defined?

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

If choice D is selected set score to 1.

64. A vessel behaves as if all of its weight is acting downward through the center of gravity, and all its support is acting upward through which point?

- (A) The center of buoyancy
- (B) The tipping center
- (C) The amidships center section
- (D) The keel

If choice A is selected set score to 1.

65. Which factor has the greatest effect on the value of the free surface correction?

- (A) The width of the tank
- (B) The specific gravity of the liquid in the tank
- (C) The length of the tank
- (D) The draft of the vessel

If choice A is selected set score to 1.

66. Which is the national distress, safety, and calling frequency channel?

- (A) 13
- (B) 16
- (C) 22
- (D) 18

If choice B is selected set score to 1.

67. 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.

68. How should gasoline tanks be filled?

- (A) Fill with only sufficient fuel for the planned trip so excess gasoline is not carried
- (B) Fill to near the top with some space allowed for gasoline expansion
- (C) To the top so the operator is certain how much fuel he has aboard
- (D) To the top to expel all vapors from the tanks

If choice B is selected set score to 1.

69. Which of the following is one of the most important safety procedures that should be adhered to prior to starting a gasoline engine on a motorboat?

- (A) the gasoline tank is full
- (B) the bilges, cabins, etc. are thoroughly ventilated
- (C) you have fresh water on board
- (D) each of the above is followed

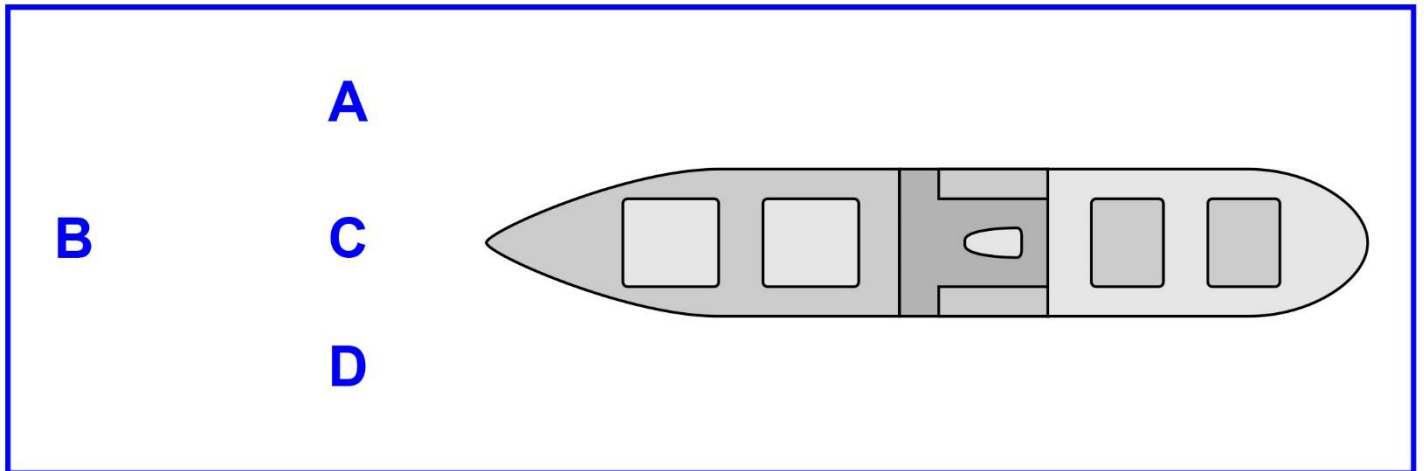
If choice B is selected set score to 1.

70. Outlets in gasoline fuel lines are _____.

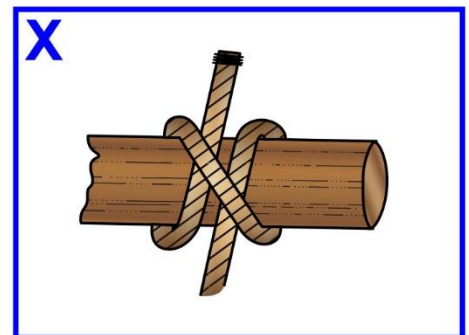
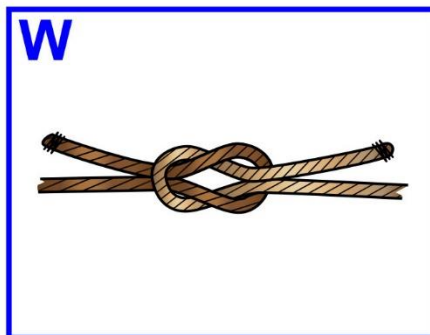
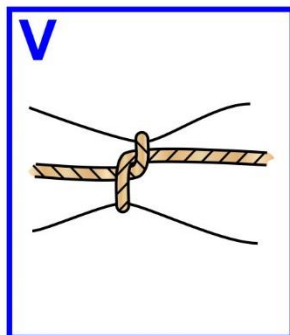
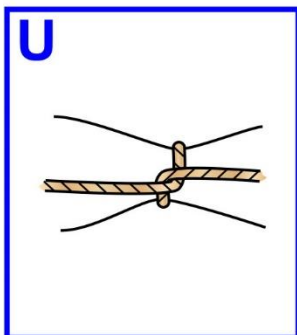
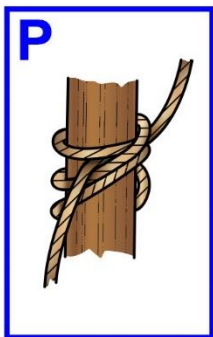
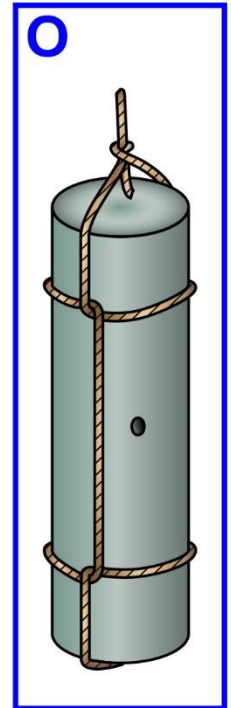
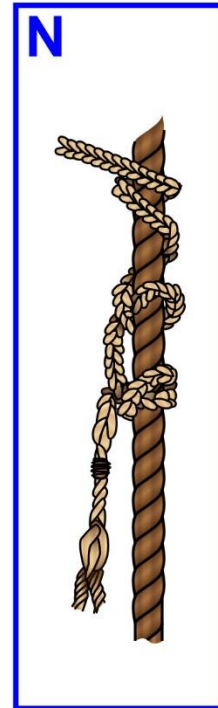
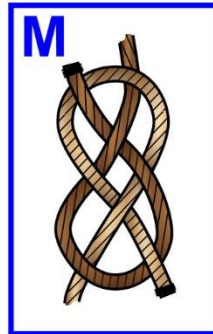
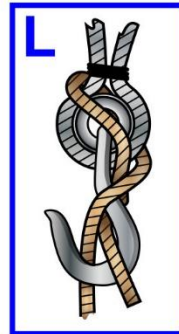
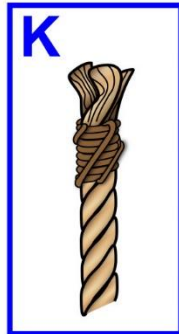
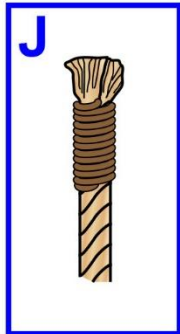
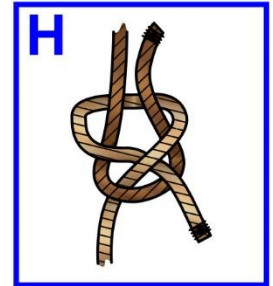
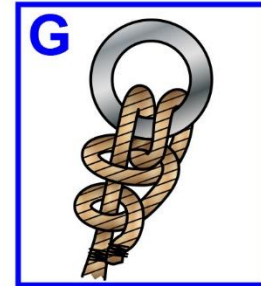
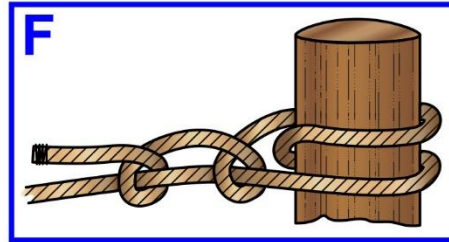
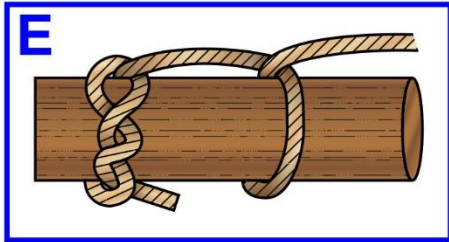
- (A) permitted for draining fuel from lines
- (B) permitted for drawing fuel samples
- (C) permitted for bleeding air from lines
- (D) prohibited

If choice D is selected set score to 1.

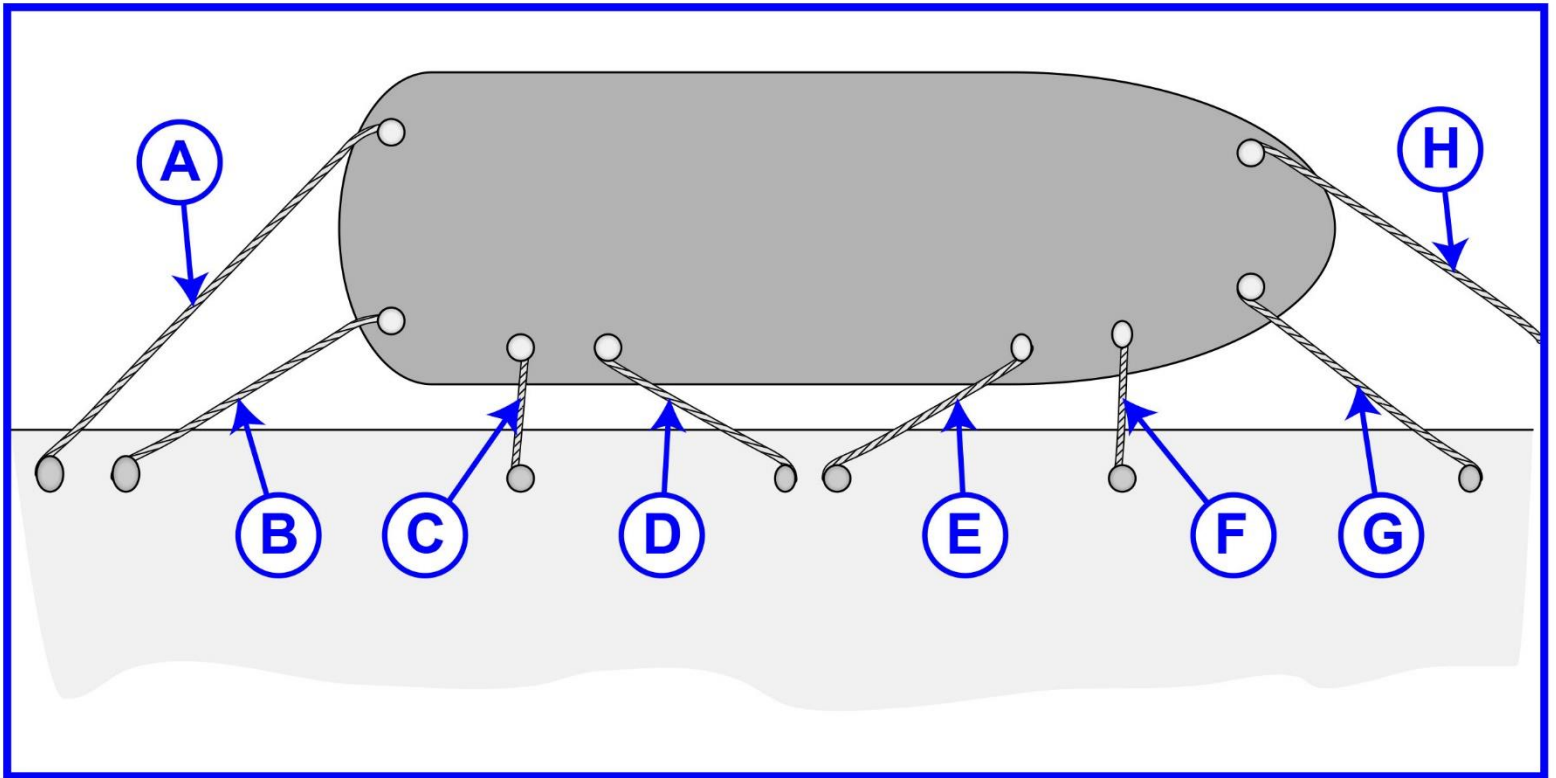
D025DG



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