

U.S.C.G. Merchant Marine Exam

Master of Unlimited Tonnage

Q303 Deck Safety

(Sample Examination)

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

1. No outlet on a fire hydrant may point above the horizontal in order to _____.
- A. avoid kinking the hose
 - B. avoid personal injury during connection
 - C. prevent spray on electrical equipment
 - D. make connecting easier

Correct answer: A

2. An aircraft has indicated that he wants you to change course and follow him. You cannot comply because of an emergency on board. Which signal should you make?
- A. Make an "S" turn (hard right then hard left) and resume course
 - B. Send the Morse signal "N" by flashing light
 - C. Make a round turn (360°) and resume course
 - D. Fire a red flare at night or a red smoke signal by day

Correct answer: B

3. Which of the following is a requirement of the mechanical disengaging apparatus in a lifeboat?
- A. It must have an operation instruction placard
 - B. The area surrounding the release lever shall be a contrasting light color
 - C. It must be painted red
 - D. All of the above

Correct answer: D

4. What is the difference between net tonnage and gross tonnage?
- A. Net tonnage is tonnage of cargo compared to tonnage of whole ship.
 - B. Net tonnage is the gross tonnage less certain deductions for machinery and other areas.
 - C. There is no difference.
 - D. Net tonnage is the net weight of the ship.

Correct answer: B

5. Which VHF channel should you avoid using as a working channel?
- A. 7A
 - B. 8
 - C. 9
 - D. 16

Correct answer: D

6. You must medevac a critically injured seaman by helicopter hoist. Which statement is TRUE?
- A. The deck crew at the hoist point should not wear baseball hats.
 - B. When using a "horse collar", the bight of the loop should be around the chest of the injured seaman.
 - C. The ship's relative wind should be from dead ahead at 10 to 30 knots.
 - D. The helicopter's drop line should be secured to the ship not more than 15 feet from the hoist position.

Correct answer: A

7. How should the sea painter of a lifeboat be led?
- A. Forward and inside of all obstructions
 - B. Up and down from the main deck
 - C. Forward and outside of all obstructions
 - D. To the foremost point on the ship

Correct answer: C

8. What is LEAST likely to cause ignition of fuel vapors?
- A. Explosion proof lights
 - B. An open running electric motor
 - C. Static electricity
 - D. Loose wiring

Correct answer: A

9. What represents poor sanitary procedures?
- A. Locate potable (drinking) water tanks as low as possible in the bilge.
 - B. Keep and use a separate filling hose for potable (drinking) water.
 - C. After washing dishes with soap and warm water, sterilize them in water of at least 170°F (76.7°C).
 - D. Eliminate enclosed spaces in which trash, food particles, dirt may gather.

Correct answer: A

10. You are fighting a class "B" fire with a portable dry chemical extinguisher. How should the discharge be directed at the fire?
- A. At the main body of the fire
 - B. Over the top of the fire
 - C. At the seat of the fire, starting at the near edge
 - D. To bank off a bulkhead onto the fire

Correct answer: C

11. A deck-stowed 40-foot container is giving off smoke, and one end is discolored from heat. The cargo is valuable and easily damaged by water. You want to extinguish the fire without further damage if possible. What action should you take?
- A. Pierce the container and discharge 6 or more portable CO₂'s then add more CO₂ hourly.
 - B. Connect a portable line from the ship's fixed system and discharge CO₂ into the container.
 - C. Cool the exterior of the container with water and close all vents; then keep it cooled until it can be off-loaded.
 - D. Flood the container with water and disregard any cargo damage as the fire threatens the entire vessel.

Correct answer: A

12. What will a sea anchor accomplish if deployed correctly?
- A. keep the liferaft from turning over
 - B. reduce the drift rate of the liferaft
 - C. aid in recovering the liferaft
 - D. increase your visibility

Correct answer: B

13. 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. attract lice and other vermin and serve as a breeding ground
 - C. spontaneously heat and catch fire
 - D. None of the above

Correct answer: C

14. What is the purpose of a check valve?
- A. Passes air but not liquid
 - B. Permits flow in one direction only
 - C. Regulates liquid flow
 - D. Passes liquid but not air

Correct answer: B

15. What factor is essential to the proper operation of a radiator cooled engine?
- A. Air flow through the radiator
 - B. Low heat of combustion
 - C. Jacket water treatment
 - D. Cooling water pressure

Correct answer: A

16. What is used as an indicator of initial stability?

- A. KG
- B. GM
- C. KM
- D. GZ

Correct answer: B

17. The free surface effects of a partially full liquid tank decrease with the increase of which item?

- A. Placement of the tank above the keel
- B. Density of the liquid
- C. Displacement volume of the vessel
- D. Size of the surface area in the tank

Correct answer: C

18. Which is the quickest method to stop a small diesel engine whose throttle or governor has become stuck open?

- A. Close the fuel supply valve
- B. Turn off the ignition switch
- C. Drain the fuel tank
- D. Apply the shaft brake

Correct answer: A

19. All marine low-speed diesels are of what design?

- A. Two-stroke
- B. Electronic ignition
- C. Four-stroke
- D. Forced exhaust

Correct answer: A

20. Inflatable liferafts are provided with which item?

- A. A Very pistol
- B. Canned milk
- C. A sail
- D. A towing connection

Correct answer: D

21. Under normal operating conditions, the rudder is hydraulically locked unless which situation occurs?

- A. A rudder order is given by the control system
- B. The manual trick wheel is engaged for steering
- C. The variable stroke pump is off stroke
- D. An electric power system failure occurs at the steering gear

Correct answer: A

22. Carbon dioxide as a firefighting agent has which advantage over other agents?

- A. It causes minimal damage.
- B. It is most effective on a per unit basis.
- C. It is safer for personnel.
- D. It is cheaper.

Correct answer: A

23. A fire in the radio transmitter would be of what class?

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

Correct answer: C

24. If your vessel is equipped with a radiotelephone, what must also be aboard?

- A. List of ship stations
- B. Radio station license
- C. Copy of ship to shore channels
- D. Certificate of Inspection

Correct answer: B

25. By day, what is the signal meaning, "This is the best place to land"?

- A. Vertical motion of a red flag
- B. A white star rocket
- C. A white smoke signal
- D. Vertical motion of a white flag or the arms

Correct answer: D

26. The searchlight on a survival craft must be capable of operating 3 hours continuously or 6 hours intermittently if operated in which cycles?

- A. 5 minutes on and 10 minutes off
- B. 10 minutes on and 5 minutes off
- C. 15 minutes on and 5 minutes off
- D. 15 minutes on and 10 minutes off

Correct answer: C

27. If an inflatable liferaft is overturned, it may be righted by which action?

- A. Pushing up from under one end
- B. Releasing the CO2 cylinder will automatically upright the craft
- C. Filling the stabilizers on one side with water
- D. Standing on the inflating cylinder and pulling on the righting straps

Correct answer: D

28. Which defines the function of a spark arrestor?

- A. It keeps sparks from falling into an open tank
- B. Utilized to secure covers on ullage openings
- C. Grounds static electricity reducing chance of explosion
- D. Prevents sparks from getting out of an engine's exhaust system

Correct answer: D

29. Which term is given to the wooden planking that protects the tank top from cargo loading?

- A. Shores
- B. Frames
- C. Toms
- D. Ceiling

Correct answer: D

30. You are in a lifeboat broadcasting a distress message. What information would be essential to your rescuers?

- A. Your position by latitude and longitude
- B. Number of persons aboard
- C. The nature of the distress
- D. All of the above

Correct answer: D

31. What is the name given to the lines that are passed around the falls to hold the boat and prevent it from swinging violently?

- A. Life lines
- B. Frapping lines
- C. Tripping lines
- D. Tricing lines

Correct answer: B

32. The gross weight of a fully charged CO2 cylinder is 80 lbs. When the bottle is empty it weighs 60 lbs. What is the minimum acceptable gross weight of the CO2 bottle before it should be recharged by the manufacturer?

- A. 55 lbs.
- B. 68 lbs.
- C. 78 lbs.
- D. 82 lbs.

Correct answer: C

33. In illustration D014SA below, which item number correctly identifies the floating sheath knife?

- A. 4
- B. 8
- C. 22
- D. 23

Correct answer: D

34. What must be accurately determined to assess the potential for progressive flooding after a vessel has been damaged?

- A. The capacity of the water sprinkler systems
- B. The operation of the machinery space bilge level alarms
- C. The integrity of the watertight boundaries
- D. All of the above

Correct answer: C

35. The angle of maximum righting arm corresponds approximately to the angle of _____.

- A. deck edge immersion
- B. downflooding
- C. the load line
- D. loll

Correct answer: A

36. On the all-purpose nozzle, what is the position of the nozzle valve when the handle is all the way forward?

- A. solid stream
- B. fog
- C. spray
- D. shut

Correct answer: D

37. One of your crew members falls overboard from the starboard side. You should IMMEDIATELY take which action?

- A. Position your vessel to windward and begin recovery
- B. Apply left rudder
- C. Throw the crew member a life preserver
- D. Begin backing your engines

Correct answer: C

38. A man who is conscious has fallen overboard is being picked up by a lifeboat. In a mild breeze how should the boat approach the person in the water?
- A. With the wind ahead and the victim just off the bow
 - B. With the wind astern and the victim just off the bow
 - C. With the wind just off the bow and the victim to leeward
 - D. With the wind just off the bow and the victim to windward

Correct answer: C

39. What is the normal percentage of oxygen in air?
- A. 16%
 - B. 18%
 - C. 21%
 - D. 25%

Correct answer: C

40. You have abandoned ship in tropical waters. Which procedure(s) should be used during a prolonged period in a raft?
- A. Get plenty of rest.
 - B. Keep the entrance curtains open.
 - C. Wet clothes during the day to decrease perspiration.
 - D. All of the above

Correct answer: D

41. What is the result of a vertical shift of weight to a position above the vessel's center of gravity?
- A. Increase reserve buoyancy
 - B. Increase KM
 - C. Decrease KG
 - D. Decrease the righting moments

Correct answer: D

42. You are on a ship that has broken down and are preparing to be taken in tow. You will use your anchor cable as part of the towline. Which statement is TRUE?
- A. The anchor cable should be led out through a chock, if possible, to avoid a sharp nip at the hawsepipe lip.
 - B. The strain of the tow is taken by the riding pawl, chain stopper, and anchor windlass brake.
 - C. The anchor cable should be veered enough to allow the towline connection to be just forward of your bow.
 - D. The anchor cable should be veered enough to allow the towline connection to be immediately astern of the towing vessel.

Correct answer: B

43. In each inflatable liferaft, what equipment is provided to make quick, emergency, temporary repairs to large holes in the raft?

- A. No equipment is provided.
- B. Several various-sized sealing clamps
- C. Glue and rubber patches
- D. Self-adhesive rubberized canvas patches

Correct answer: B

44. Which is the principal danger from ice collecting on a vessel?

- A. The adverse effect on trim
- B. The decrease in displacement
- C. The decrease in capabilities of radar
- D. The loss of stability

Correct answer: D

45. 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. Center of flotation
- B. One compartment standard
- C. Permeability
- D. Form gain

Correct answer: C

46. Which is one of the limitations of foam as an extinguishing agent?

- A. Foam cannot be made with salt water
- B. Foam is corrosive to all steel surfaces and is hazardous to firefighters
- C. Foam is heavier than oil and sinks below its surface
- D. Foam conducts electricity

Correct answer: D

47. How often are each EPIRB and SART for lifeboats required to be tested on the vessel?

- A. Weekly
- B. Every 2 weeks
- C. Monthly
- D. Every 3 months

Correct answer: C

48. In a racetrack turn, to recover a man overboard, the vessel is steadied for the SECOND time after a turn of how many degrees from the original heading?

- A. 60°
- B. 135°
- C. 180°
- D. 360°

Correct answer: D

49. When collecting condensation for drinking water, which is TRUE?

- A. It should be strained through a finely woven cloth
- B. Only condensation on the bottom of the canopy should be collected
- C. A sponge used to mop up and store condensation must be kept salt free
- D. Chlorine tablets should be used to make it drinkable

Correct answer: C

50. If the situation arose where it became necessary to tow a disabled vessel, which statement is TRUE concerning the towing line?

- A. There should be a catenary so the line dips into the water.
- B. The towing line should be taut at all times between the vessels.
- C. The towing line between the two vessels should be clear of the water.
- D. None of the above.

Correct answer: A

51. What type of stern tube bearing has the least friction?

- A. Bronze bushings
- B. Oil-lubricated bearings
- C. Lignum vitae
- D. Hard rubber

Correct answer: B

52. Where, due to the arrangement of the vessel, lifejackets may become inaccessible, which is TRUE of the required additional lifejackets?

- A. They are only for the people on bridge watch
- B. Required for 50% of the crew of the vessel, not including those assigned to engineering duties
- C. The additional lifejackets will be stowed as determined by the OCMI
- D. They will be stowed in the forward lifeboats

Correct answer: C

53. In illustration D012SA below, what is the mechanism that will release the tricing pendant?

- A. A quick release lever
- B. A 3/4" screw pin shackle
- C. The fore and aft gripes
- D. The McCluny hook

Correct answer: D

54. Which term is given to the upward slope of a vessels bottom from the keel to the bilge?

- A. Rise of floor
- B. Camber
- C. Rake
- D. Sheer

Correct answer: A

55. Why must a fire be ventilated?

- A. Only if compressed gas cylinders are stowed in the compartment on fire
- B. To minimize heat buildup in adjacent compartments
- C. To aid when using an indirect attack on the fire such as flooding with water
- D. To prevent the gases of combustion from surrounding the firefighters

Correct answer: D

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

Correct answer: D

57. Which of the following terms defines the minimum temperature required to ignite gas or vapor without a spark or flame being present?

- A. Autoignition temperature
- B. Lower explosive limit
- C. Flash point
- D. Fire point

Correct answer: A

58. What power source actuates a solenoid valve?

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

Correct answer: A

59. According to the regulations for lifeboat falls, which action must be taken with the falls no later than 5-year intervals?

- A. Renewed
- B. Weight tested
- C. End-for-ended
- D. Proof tested

Correct answer: A

60. Your vessel has just run aground. Which of the following would be one of the first actions you should take in this situation?

- A. Pump out all double bottoms
- B. Apply RPM to one propeller
- C. Sound all tanks
- D. Back the engines full astern

Correct answer: C

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

- A. Civil penalty against the Master or person in charge
- B. \$1,000 fine or imprisonment for not more than two years
- C. \$5,000 fine and imprisonment for not more than one year, or both
- D. Civil penalty of no more than \$5,000

Correct answer: A

62. Your vessel has been damaged and is partially flooded. The first step to be taken in attempting to save the vessel is to _____.

- A. calculate the free surface effect and lost buoyancy to determine the vessel's stability
- B. plug the hole(s) in the outer shell
- C. establish flooding boundaries and prevent further spread of flood water
- D. pump out the water inside the vessel

Correct answer: C

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

- A. Nitrogen
- B. Sodium
- C. Oxygen
- D. Carbon dioxide

Correct answer: C

64. The decision has been made to make landfall through a slight surf in an oar-propelled lifeboat. How should the sea anchor be utilized?

- A. secure the tripping line, as the wave overtakes the craft release the towing line so the craft can advance to the beach
- B. keep a strain on the tripping and towing lines, as the wave overtakes the craft release the tripping line and backwater
- C. keep a strain on the towing and tripping lines to control the advancement of the craft as the waves roll onto the beach
- D. secure the towing line, as the wave overtakes the craft pull on the tripping line and order backwater to advance to the beach

Correct answer: D

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

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

Correct answer: B

66. How should a message warning of a tropical storm be sent?

- A. Urgent message
- B. Routine message
- C. Safety message
- D. Distress message

Correct answer: C

67. The welds used to join shell plates in flush construction are known as _____.

- A. fillet welds
- B. seam welds
- C. continuous welds
- D. butt welds

Correct answer: D

68. For the purpose of training and drills, if reasonable and practicable, how frequently should rescue boats be launched with their assigned crew?

- A. Twice a year
- B. Once a month
- C. Once a week
- D. Once a year

Correct answer: B

69. During a SAR helicopter evacuation which of the following describes the proper donning of a rescue sling?

- A. The loop of the sling passes across the chest and under the arms while facing away from the winch hook
- B. The loop of the sling passes behind the back and under the arms while facing the winch hook
- C. The person steps onto the sling grasping the hoist line for support while facing away from the winch hook
- D. The person sits in the sling with their hands clasped across the chest while facing the winch hook

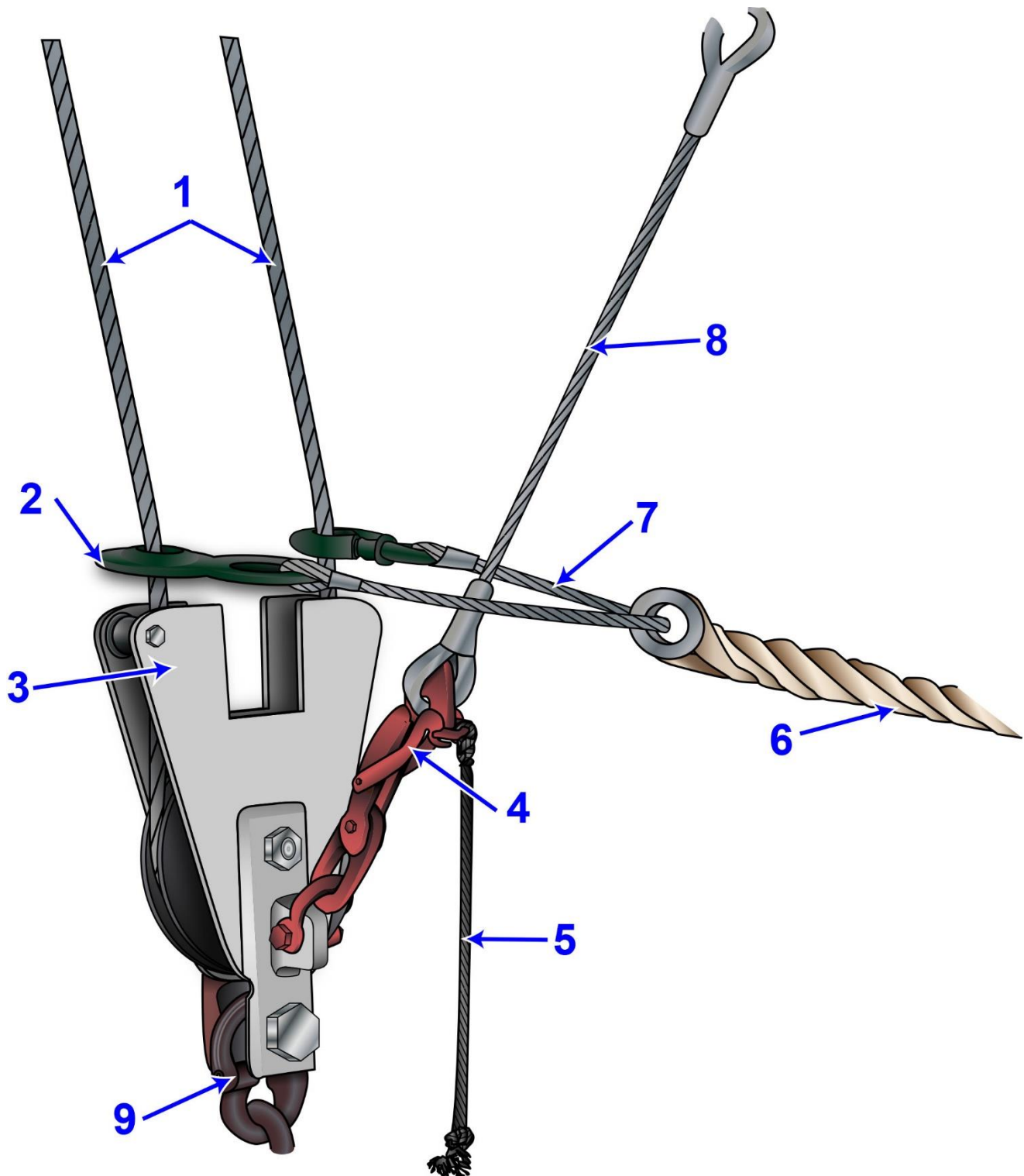
Correct answer: B

70. Your vessel has grounded on a bar. What should you do?

- A. If you cannot get clear immediately, lighten the ship by pumping all ballast overboard.
- B. Switch to the high suction for condenser circulating water, if it is submerged.
- C. Run the engine full astern to keep from being set further onto the bar.
- D. All of the above

Correct answer: B

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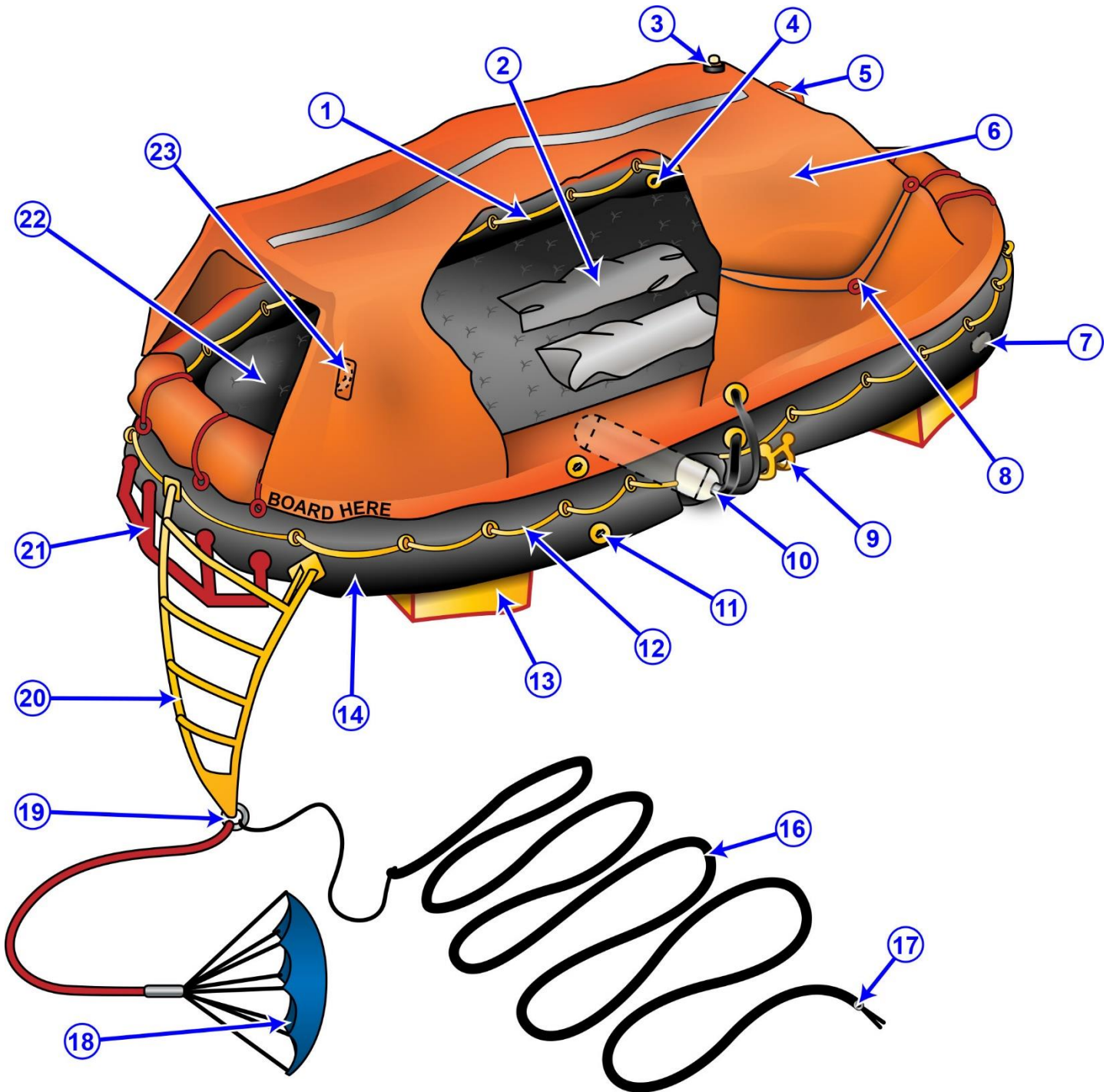


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