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BAREBOAT CRUISING REVIEW QUESTIONS

KEY

For Instructor Use Only

Bareboat Cruising Review Questions (Page numbers in Bareboat Cruising Made Easy)

This hand-out is provided by Spinnaker Sailing to help you prepare for the American Sailing Association Bareboat Cruising Exam

These review questions will help familiarize you with all the questions found in the written exam. Using the ASA textbook, try to find as many answers as you can before your class review session. You may not be able to find a complete answer to every question. Please note which questions you need additional information on so your instructor can provide more information.

Instructors: Let your students know in advance when the test question review class is happening and encourage them to follow the above instructions. This way you can minimize the time you need to spend in class on the easy stuff. You can even skip over items completely if all the students indicate they are good with those particular questions.

1. Where is the best place to plan to arrive when first sailing to a new country? (114)

   At an official port of entry when possible.

2. Which documents are required by Customs and Immigration? (114)

   Boat registration/documentation and crew passports.

3. What is the recommended treatment for heat exhaustion? (159)

   Rapid cooling and hydration.

4. What activities can aggravate and what can mitigate seasickness? (159)

   Alcohol consumption. Lack of sleep. Lack of fresh air. Limited view of horizon.

5. Name spare items for the engine that should be stocked aboard a cruising boat. (57)

   Spare fuel filters, alternator belt, raw water impeller.

6. Name conditions that affect a boat's range under power. (55)

   Engine RPM, Wind & Sea Condition, Onboard Weight.

7. How do you calculate rate of consumption given amount of fuel consumed and time motored? (55)

   Rate = amount of fuel consumed (gallons) divided by the time motored (hours).

8. How do you calculate cruising range in hours and distance given fuel available and speed? (55)

   Range in hours = Number of gallons available divided by the consumption rate.

   Range in miles (distance) = Range in hours x speed.

9. How many gallons of water per person should be provisioned for drinking? For washing? (178)

About ½ gallon for drinking, 5 gallons for bathing, washing and cooking.

10. How is the gas solenoid valve used to extinguish the flame in normal stove operation? (177)

1. Turn off the gas solenoid using the switch in the galley &/or electrical panel.

2. Let the remaining gas burn off to bleed the pressure in the gas line.

3. Turn off the stove burner control knob.

11. Where is the solenoid valve located? Where is the solenoid control switch located? (42)

Solenoid valve is located at the tank in the propane locker. Switch(s) located inside the cabin in the galley area &/or the electrical panel.

12. How is a marine stove kept level while the boat is heeling? (177)

The stove hangs on GIMBOLS that let the stove pivot to keep it level.

13. How far off the U.S. coast may waste from the marine head be discharged? (43)

3 miles

14. What device is used to select whether waste from the head is directed to the holding tank or directed overboard? (43)

The "Y" valve directs waste to either the holding tank or overboard. It should be secured to direct waste to tank when within 3 miles of U.S. Coast.

15. How does waste get from the head to the holding tank? (43)

It gets pumped through a hose connecting the holding tank to the head. (Use sufficient pumping to assure all waste reaches the holding tank.)

16. What do you do with the deck plate cap and the pump out nozzle when pumping out a marine holding tank? (43)

Unscrew the waste deck plate and then hold the pump-out nozzle firmly in the outlet before opening the valve on the pump-out nozzle.

17. What are two causes for a freshwater pump cycling on and off when no one us using water? (41)

An open faucet. A leak in the system fresh water system.

18. How do you keep the batteries sufficiently charged when using 12V DC power refrigeration? (179)

Batteries must be recharged regularly. (Twice a day is often needed.)

19. Describe the position of a seacock handle for the open and closed positions. (40)

Open: Handle in line with valve body. Closed: Handle at right angle to valve body.

20. The automatic bilge pump switch should be left in what position when leaving the boat unattended? (40)

It should be positioned in the "Automatic" mode.

21. Where are the boat's electrical circuit breakers located on modern boats? (45)

Circuit breakers are usually located on the boats electrical control panel.

22. Which end of the shore power cable should be connected first in order to preclude a live connector falling into the water? (46)

Connect to boat first and then the power outlet on the dock.

23. House 12V power works with what kind of current? (44)

Direct current (D/C)

24. Why is it inadvisable to let batteries run down more than 50%? (44)

It's bad for the batteries and bad for some equipment to run on low voltage.

25. What's the first and easiest thing to try if nothing happens when attempting to start the engine? (56)

Check to see if the battery switches are on.

26. What will happen to the alternator if you turn the battery switch to the OFF position while the engine is running? (56)

This will immediately destroy the alternator.

27. What is the purpose of the primary fuel filter? (54)

To remove water and dirt particles from the fuel.

28. Describe the operation of the lift pump. (54)

To draw Diesel fuel from the tank through the secondary filter and can be operated manually to prime the fuel system and bleed off air bubbles.

29. Which part of the fuel system operates under the highest pressure? (54)

The injector pump sending fuel to the injectors

30. How often should the engine oil quantity be checked? (53)

Daily

31. How is the coolant flow regulated in the pressurized internal cooling system? (53)

By the thermostat

32. Describe the function of the impeller pump in the boat's engine cooling system. 53)

To move the water through the raw-water system

33. Describe ways the raw-water cooling system can fail. (53)

Clogged raw-water intake. Closed intake valve. Clogged strainer. Damaged impeller.

34. Which navigation instrument requires cleaning of the underwater part to remain functional? (48)

Knotmeter transducer.

35. What are some officially recognized distress signals? (154)

EPIRB, pyrotechnic flares, black square and ball on an orange background, Mayday on VHF radio, etc. (Not the code flag Alpha which signals diving operations)

36. What is the international distress, safety and calling channel on the VHF radio? (153)

Channel 16

37. What is a skipper's first responsibility in the event of a collision with another boat? (166)

Establish the safety of your crew.

38. What should be the first action in the event of grounding a boat under sail? (168)

Depower the sails.

39. What are the most effective tools to fight an onboard fire? (170)

Fire extinguishers and fire blankets

40. Before diving, what could help to free up a line accidentally wrapped around the prop? (166)

Turning the prop shaft by hand might work.

41. An emergency tiller fits into what part of the boat? (167)

The rudder stock

42. What immediate action should be taken in the event of an engine failure in a crowed anchorage? (167)

Coast or sail to an open space and drop anchor.

43. What is the best point of sail to stop a boat to windward of a Man Overboard victim? (160)

Close Reach

44. How can you recover an injured or unconscious M.O.B. victim onto the boat? (163)

Hoist the victim on deck with a halyard attached to a harness or sling or use a dinghy to get the victim in a 2-step process.

45. When does a skipper remain responsible for the boat and crew? (34)

All the time, even while below deck

46. How do you initiate a call to another vessel on the VHF radio? (104)

Call the name of the other vessel three times.

47. What technique allows a boat to remain tied to a fixed pier when there is a significant tidal range? (95)

Use long enough lines to accommodate the tidal range.

48. Where is the best position to drop an anchor to allow the best swing clearance when anchoring near another boat? (97)

Off the other boat's (stern) quarter

49. Which kind of anchoring requires the most swinging room? (98)

Bow anchor only

50. Describe the function and limitation of the anchor windlass when weighing anchor. (100)

It should only be used to raise the anchor, not to pull the boat forward.

51. Describe the various hazards and precautions for rafting at anchor. (99)

Anchor the largest/heaviest boat with the biggest anchor first. Request permission before approaching the other boat. Adjust spring lines to offset masts fore and aft.

52. Describe the various hazards and precautions for towing a dinghy. (111)

Adjust the towline to keep the dinghy in step with waves or wake. Shorten the towline during anchoring, mooring or docking. Keep the outboard engine raised and fuel tank vent closed. Do not use dinghy to store excess garbage, etc.

53. What are the characteristics of Polypropylene line used for dinghy painters? (113)

It floats but it's also slippery and can easily slip loose from cleats.

54. What should be done to prepare the boat and crew for heavy weather? (75)

Stow gear, wear harnesses & tethers, reef the sails.

55. Describe techniques and hazards when operation manual and electric winches. (65)

Use winches to give you more power to safely control the sails. Keep enough wraps on the winch to retain control of the tail when easing a sheet. Positioning you body over the winch allows you to apply more upper-body strength. Do not add additional force if you encounter unusual resistance.

56. How does flattening the sails help to increase control by de-powering the sails? (68)

A flatter sail doesn't alter the course of the wind as much as a fuller sail.

57. Which control operations work to increase sail twist in the main and jib? (69)

Easing the mainsheet increases twist in the main. Moving the jibsheet leads aft increases the twist in the jib.

58. What is the best point of sail for reefing the main while sailing on the jib? (75)

Close reach so the boat can be sailed by power from the jib only.

59. Which are the best two points of sail for setting a roller-furling jib depending on conditions? (66)

A close reach in mild to moderate wind conditions. A deep broad reach in heavy wind to reduce the load on the jip by keeping it shadowed by the main.

60. How can the shape of the jib be controlled? (69)

The position of the jibsheet leads

61. Describe the result of prop walk. (89)

It tends to move the stern sideways when reverse gear is engaged.

62. How can a dockside test reveal whether a boat has starboard or port prop walk? (89)

The stern moves opposite the side the prop wash flows away from the boat.

63. What situation requires the granting of "permission to board"? (185)

Any time another boat is boarded

64. What is the reason for the first boat(s) at an anchorage deciding the anchoring method used by following boats in the immediate area? (97)

If you don't use the same anchoring method your boat will swing differently from the previously anchored boat an may collide with it.

65. Where should the flag of a boat's country of registry be flown? (115)

At the stern

66. Where is the host country flag flown on a boat after clearing customs and immigration? (115)

At the starboard spreader

67. What do the navigation rules say about right of way between sailboats that are racing and non-racing sailboats? (185)

Nothing, although right of way is normally given to racing boats as a courtesy.

68. When may a masthead tri-color light be used instead of regular running lights? (109)

Only on boats that are sailing (not motoring) and only boats under 20 meters in length

69. When must navigation lights be used? (109

Between sunset and sunrise, and in periods of restricted visibility

70. Describe the characteristics of the anchor light. (99)

An all around white light usually at the top of the mast

71. What legal obligation does a skipper have to render assistance to individuals who are in danger at sea? (155)

To render assistance that can be safely offered to individuals who are in danger at sea

72. When is it required to maintain a proper lookout? (106)

At all times

73. What is the obligation regarding Traffic Separation Schemes by pleasure craft approaching a commercial port? (106)

Pleasure boats are NOT obliged to join the traffic separation scheme for commercial craft.

74. What is the obligation of the "stand-on" vessel? (106)

To maintain its course and speed unless the give-way vessel fails to take action to keep clear.

75. What is the proper length of a "prolonged" blast of a horn or whistle? (107)

4 to 6 seconds

76. What is the obligation of a sailboat under auxiliary power when encountering a powerboat on a crossing course? (106)

To give way (A sailboat under auxiliary power is a powerboat under the rules.

77. What would be your response if you were to answer a whistle signal of one short blast from on overtaking powerboat? (106)

Reply with one short blast and maintain your course. (If you agree with his intention)

78. Describe the sea breeze effect. (146)

Warm air rises over the land drawing in cooler air onshore from the water.

79. Describe what causes Advection fog. (143)

Strong wind blows warmer air over cold water causing the air to cool and condense.

80. Describe the precautions to be taken when underway in reduced visibility. (143)

Make proper sound signals per the Navigation Rules. Slow down. Stay out of shipping channels. Turn on navigation lights.

81. What is tidal range? (138)

The difference in water height between high and low tides

82. Regarding tidal current, what is the relationship between maximum current vs. slack water? (139)

The maximum tidal current generally occurs midway between the slack water times.

83. What kind of current is associated with a rising tide? With a falling tide? (139)

Flood current is associated with a rising tide. Ebb current with a falling tide.

84. How do you adjust the charted depth for a given tidal height? (139)

Add the predicted height of the tide to the charted depth.

85. What is the line on a chart indicating a boat's intended direction of travel called? (131)

The course

86. What is the difference between True North and Magnetic North called? (130)

Variation

87. What factors are used to determine a dead reckoning (DR) position? (134)

Heading, Boat Speed and Time

88. What kind of units express positions east or west of the Prime Meridian and what is the range of these units? (120)

Degrees of Longitude from 0 – 180 degrees

89. Which scale on a nautical chart is used to measure distance when there is no scale for nautical miles? (120)

The Latitude Scale

90. What are the three kinds of units used to measure soundings? (129)

Feet, Fathoms and Meters

91. What does it take to make a fix on a chart? (133)

Two intersecting Lines of Position

92. What information is covered in Chart No. 1? (119)

Chart symbols and their meanings

93. When selecting aids to navigation (ATON's) for plotting a fix, what is the best angle between the aids for an ideal two bearing fix? (133)

90 degrees such as East and South, South and West, West and North, etc.

94. Why would the GPS be better to use to calculate an estimated time of arrival than the knot meter? (126)

The GPS reads speed as Speed Over Ground (SOG) which reflects the true rate of progress as opposed to speed though the water where progress may be affected by the current.

95. What is the relationship between the magnetic and true scales on the compass rose? (130)

True degrees are read from the outer ring and Magnetic degrees are read from the inner ring of the compass rose.

96. Be able to calculate and Estimated Time Enroute (ETE) given distance and speed. (125)

ETE = Distance divided by speed. (When time is in minutes use: 60 times distance divided by speed in knots.)

97. Be able to calculate Speed Over Ground given distance and time. (125)

SOG = Distance divided by time in hours. (Use: 60 times the distance divided by time in minutes.)

98. Be able to measure total distance of a three-point passage. (125)

Measure the distance of each leg and add them up.

99. Be able to calculate an Estimated Time of Arrival (ETA) based on time of departure and ETE. (125)

ATA = ATD (actual time of departure + ETE (estimate time enroute)

100. Be able to project the your passing of another vessel given the other vessel's course and speed. (125)

Keep in mind: You shall not impede a vessel required to follow a traffic lane and must give way regardless of whether where your projected passing is.