Continuing Education Course #329
Mooring Field Layout and Design

1. Which of the following are common types of anchors used for moorings?
- a. Concrete Block
- b. Mushroom Anchor
- c. Helix Anchor
- d. All of the above

2. What type of harbor bottom sediment conditions are block type anchors appropriate for?
- a. Muddy, mucky, organic sediments
- b. Sandy, silty sediments
- c. Dense, gravelly sediments
- d. All of the above
- e. A and B only

3. What type of harbor bottom sediment conditions are mushroom type anchors appropriate for?
- a. Muddy, mucky, organic sediments
- b. Sandy, silty sediments
- c. Dense, gravelly sediments
- d. All of the above
- e. A and B only

4. What type of harbor bottom sediment conditions are helix type anchors appropriate for?
- a. Muddy, mucky, organic sediments
- b. Sandy, silty sediments
- c. Dense, gravelly sediments
- d. All of the above
- e. A and B only

5. What are the most common types of rodes used in mooring systems?
- a. Chains and ropes
- b. Chains and Elastic
- c. Rope and elastic
- d. None of the above

6. What is the primary use of a swivel in a mooring system?
- a. Helps the anchor get properly seated
- b. Connects the components and allows them to rotate to avoid tangling
- c. Prevents components from rotating
- d. Is used to connect the pennant to the vessel

7. What are the most common components of a conventional mooring system?

- a. Anchor, bottom chain, swivel, top chain, float, pennant
- b. Anchor, single dimension chain, float, pennant
- c. Anchor, elastic rode, float, pennant
- d. Anchor, rope, float, pennant

8. What is the primary benefit of a conservation mooring?
- a. Increases impact on the harbor bottom
- b. Minimizes impact on the harbor bottom
- c. Eliminates the need for a strong anchor
- d. Is easier and less expensive to implement

9. According to the Boat US Insurance test, which type of anchor had the best holding strength?
- a. Block Anchor
- b. Double Block Anchor
- c. Mushroom Anchor
- d. Helix Anchor

10. Which federal agency provides a great resource for navigational charts and water depths?
- a. NASA
- b. NRC
- c. NOAA
- d. EPA

11. At what angle does a single beam transducer typically collect data up to?
- a. 3 degrees
- b. 20 degrees
- c. 45 degrees
- d. 70 degrees

12. What is the primary purpose of sub-bottom profiling?
- a. Identify objects with a magnetic signature
- b. Identify basic geologic strata in an area
- c. Identify debris or obstructions
- d. Collect bathymetry data

13. What is the primary purpose of Side Scan Sonar surveys?
- a. Identify objects with a magnetic signature
- b. Identify basic geologic strata in an area
- c. Identify debris or obstructions
- d. Collect bathymetry data

14. What is the primary purpose of a magnetometer survey?
- a. Identify objects with a magnetic signature
- b. Identify basic geologic strata in an area
- c. Identify debris or obstructions
- d. Collect bathymetry data

15. What natural factors should a mooring field to be located to minimize exposure to?
- a. Wind
- b. Waves

- c. Current
- d. All of the above

16. What is the minimum water depth you want to have for a mooring field at low water?
- a. 4 feet
- b. 6 feet
- c. 8 feet
- d. 10 feet

17. What is the scope range of a conventional mooring?
- a. Between 1:1 and 4:1
- b. Between 1.5:1 and 3:1
- c. Between 2.5:1 and 4:1
- d. Between 3:1 and 5:1

18. What end of the tidal cycle should you specify the scope of chain against?
- a. Ebb tide
- b. Slack tide
- c. Low tide
- d. High tide

19. What is the best way to get an anchor properly seated for a mooring?
- a. Drop the anchor and drive against the prevailing winds
- b. Drop the anchor, keep the rode taut and circle the mooring 3-5 times
- c. Drop the anchor and put the engine in full throttle in reverse.
- d. Send a diver down to dig a hole, then have the diver cover the anchor once it is placed.

20. What's a typical inspection schedule for mooring equipment?
- a. Semi-annually for the easily accessible items, every two years for the anchor and bottom chain.
- b. Monthly for the easily accessible items, every year for the anchor and bottom chain.
- c. Semi-annually for the easily accessible items, every three years for the anchor and bottom chain.
- d. Annually for the easily accessible items, every three years for the anchor and bottom chain.