

**National Marine Manufacturers Association**  
**Compliance Specialist Exam**  
**Buoyancy in the event of Swamping/Flooding (2022 MY)**  
**ABYC H-8 (7/2017)**

1. The submerged weight conversion factor for Aluminum is:
  - a. 0.88
  - b. 0.85
  - c. 0.63
  - d. 0.17
  
2. What is the submerged weight of a 350 lb. aluminum boat hull?
  - a. 215
  - b. 215.5
  - c. 220.5
  - d. 225
  
3. A 19 ft outboard boat rated for 15hp must meet \_\_\_\_\_ requirements:
  - a. Basic Flotation
  - b. Level Flotation
  - c. Modified level flotation
  - d. None of the above
  
4. The static floating position is determined:
  - a. With fuel tanks empty
  - b. With water tanks empty
  - c. With Portable gear on board
  - d. In salt water
  
5. Flotation material installed in a sterndrive boat engine compartment must be resistant to gasoline, oil, and trisodium solution.
  - a. True
  - b. False
  
6. A "jet boat – lightweight" is defined as having the following except:
  - a. Boat Weight less than 3,000 lbs.
  - b. Length less than 20 feet
  - c. Inboard engine powering a water jet pump as its primary propulsion
  - d. Requires Basic Flotation

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7. Flotation under H-8 is required for:
  - a. For boats 20 feet and less
  - b. For boats less than 20 feet
  - c. For pontoons less than 26 feet
  - d. Canoes and Kayaks
  
8. For basic flotation, a boat that has passed a physical flotation test after appropriate preparation and weights applied according to the test procedures shall have:
  - a. Both fore and aft reference areas above the surface of the water
  - b. At least 12" of the bow above the surface of the water
  - c. At least 18" of the bow above the surface of the water
  - d. Any portion of the boat above the surface of the water
  
9. If a cubic foot of flotation foam weighs 2 lbs., what is the buoyancy of 16 cubic feet?
  - a. 844
  - b. 966
  - c. 1006
  - d. 1016
  
10. For boats utilizing Level Flotation, a representative sample shall pass the requirements of H-8.8 by a physical test.
  - a. True
  - b. False
  
11. For boats utilizing Basic Flotation, a representative sample must pass the requirements of H-8 by a physical test.
  - a. True
  - b. False
  
12. To successfully pass the stability test of the level flotation requirement:
  - a. The angle of heel must not exceed 10 degrees
  - b. The angle of heel must not exceed 20 degrees
  - c. The reference depth measured at the immersed reference area shall be 6 inches or less
  - d. The reference depth measured at the immersed reference area shall be 12 inches or less

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13. Regarding the preconditioning of a boat for a flotation test, which of the following is a correct statement?
- a. Windshields and convertible tops must be removed
  - b. Optional equipment for which the manufacture has made design provision for future permanent installation by the dealer is accounted for.
  - c. Swamp the boat for at least 48 hours
  - d. Fuel tanks shall be no more than ½ full
14. What is the theoretical line, where dry weights will be used above it and submerged weights will be used below it, when calculating for the needed flotation?
- a. Swamped waterline
  - b. Static float plane
  - c. Reference Depth
  - d. Heeled Waterline
15. Integral air chambers:
- a. Are permitted for flotation in lieu of foam
  - b. Shall be filled with water for a flotation test, effectively not permitting integral air chambers for flotation
  - c. Must be tested to 3 psi
  - d. Filled with salt water
16. What is the buoyancy of 8 cubic feet of 2-pound flotation foam?
- a. 483 lbs.
  - b. 384 lbs.
  - c. 64 lbs.
  - d. 16 lbs.
17. An 18-foot boat has passenger carrying area measuring 12 ft by 6 ft. What is its loading area?
- a. 3.2 ft by 2 ft
  - b. 4.8 ft by 2.4 ft
  - c. 5.6 ft by 4.55 ft
  - d. 8.4 ft by 4.2 ft

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18. For a sterndrive and inboard boat, dead weight is:
- a. The maximum capacity marked on the boat, plus the persons capacity marked on the boat
  - b. The maximum capacity marked on the boat, minus the engine and persons capacity marked on the boat
  - c. The maximum capacity marked on the boat, minus the persons capacity marked on the boat
  - d. None of the above
19. After pre-conditioning, a boat meeting basic flotation must have enough flotation to keep a portion of the boat above the surface of the water when loaded with weights:
- a. Equal to 25% of the persons capacity marked on the boat
  - b. Equal to 25% of the dry weights of propulsion system and battery(s)
  - c. Equal to 50% of the dead weight
  - d. Equal to 75% of the fuel weight
20. When calculating basic flotation requirements, the value  $K_1$  and  $K_2$ :
- a. Is the dry weight of the hull, i.e., everything below swamped water line
  - b. Is the submerged weight conversion factor for different materials
  - c. Is the dry weight for factory installed equipment, hardware, and accessories
  - d. Is the buoyancy of the flotation material