1. Throttle and shift lever controls shall be installed to minimize accidental engagement during:
   a. Attaching dock lines
   b. Passenger mobility around the control
   c. Egress/Ingress
   d. All of the above

2. The mechanical steering cable shall withstand an axial cable load of ____.
   a. 1,000 lbs.
   b. 1,500 lbs.
   c. 2,000 lbs.
   d. 2,500 lbs

3. Neutral holding mechanisms are required when:
   a. Single lever controls are installed on a flybridge where the controls cannot be shifted inadvertently upon entering and exiting the boat.
   b. Single top mounted controls comply with P-14.5.6.
   c. Single lever controls are installed on a boat with a single propulsion engine.
   d. Propulsion engine utilizes a push button to start.

4. Wheel Dish is defined as:
   a. The distance between the parallel planes formed by the aft rim surface and the forward hub surface of a wheel
   b. The distance between the parallel planes formed by the inner and outer sections of the steering wheel
   c. The distance along the axis of the steering shaft, from the helm to the outer most section of the steering wheel
   d. The distance along the axis of the steering shaft, from the helm to the forward hub surface

5. Start-In-Gear Protection is required for:
   a. all boats
   b. powerboats over 115 pounds of thrust
   c. sailboats and PWC’s
   d. boats with thrust limiting devices

6. The purpose of a two-cable system is:
   a. remove most of the backlash from both cables
   b. improve the boats controllability
   c. allows adjustment so one cable is tension and the other is compression
   d. all of the above
7. An Axial Load Test requires:
   a. A 100-pound force distributed over not more then 4-inches of the steering wheel rim, tangentially to the plane of the steering wheel rim for ten cycles at five seconds per loading.
   b. A 100-pound force distributed over not more then 4-inches of the steering wheel rim, parallel to the plane of the steering wheel rim for ten cycles at five seconds per loading.
   c. A 150-pound force distributed over not more then 4-inches of the steering wheel rim, tangentially to the plane of the steering wheel rim for ten cycles at five seconds per loading.
   d. A 150-pound force distributed over not more then 4-inches of the steering wheel rim, in a direction parallel to the axis of the steering shaft for ten cycles at 5 seconds per loading.

8. What are the three different types of approved helm shafts?
   a. Tapered spline shaft, Round Shaft, and Tapered square shaft
   b. Tapered square shaft, Tapered round shaft, and spline shaft
   c. Tapered round shaft, Square Shaft, and Tapered spline shaft
   d. Rounded square shaft, Squared round shaft, and spline shaft

9. In a mechanical steering system, plain threaded jam nuts may be used to permit adjustments.
   a. True
   b. False

10. Hydraulic system components shall not be installed in areas where the operating temperatures exceed:
    a. 180°F
    b. 170°F
    c. 165°F
    d. 160°F

11. Helm Displacement is described as:
    a. The output volume of hydraulic fluid per helm revolution
    b. The volume of the helm and all of its components
    c. The ratio between the attack angle of the rudder versus helm revolutions
    d. The flooded net volume of the cockpit minus the helm and any cockpit superstructure

12. The steering stops on an outboard engine shall:
    a. be placed to provide 15 degrees of movement to each side of center
    b. be based on manufacturer’s recommendations
    c. be placed to provide 30-degrees of movement to each side of center
    d. be placed to provide 30-degrees of total movement
13. When tested to the axial load test in P-22, there shall be no fracture of the steering wheel structure or permanent deformation in excess of ____ inch at the rim or spoke’s handgrip such that the required loads cannot be achieved
   a. $\frac{1}{8}$
   b. $\frac{1}{4}$
   c. $\frac{1}{2}$
   d. 1

14. Boat mounted steering system cables shall be installed:
   a. with bends as small as practicable
   b. with as few bends as possible
   c. the bend radius shall be smaller than the manufactures recommendations
   d. near hot components such as exhaust fittings

15. The clearance between the steering wheel and control levers shall be:
   a. at least 2-inches in all wheel and lever positions
   b. at least 2 ½-inches in all wheel and level positions, single lever mounted controls only
   c. at least 2-inches in all wheel and lever positions, side mounted controls only
   d. at least 2 ½-inches in all wheel and lever positions