AS-118 Maneuvering and Docking Review Questions Key
For Instructor Use Only

1. How do keel-hung, skeg-hung and the spade rudders differ in terms of maneuvering ability?
   p. 14, 15
   Fin Keel and spade rudder boats are most maneuverable. Full keel with keel-hung rudder the least maneuverable and keg hung with cut away full keel a compromise between the the others.



2. What is the the effect of prop walk in reverse gear on a boat with a right-had prop?
   P. 23
   Stern moves to port (and the bow to move to starboard).

3. How can wear and tear of the transmission be minimized when shifting between forward and reverse gears?
   P. 68
   Always pause in neutral when shifting between forward and reverse.

4. What is prop wash?
   P. 23
   The discharge of current created by a rotating propeller

5. Which control has the most effect of prop walk when in reverse gear?
   P. 23
   Engine RPM

6. What is it called when applying a short sharp blast of forward power onto a fully deflected rudder in order to make a sharp turn with little forward motion of the boat?
   P. 24
   Prop blast

7. How does the effect of windage differ between most cruising boats with dinghies and/or dodgers and low-freeboard racing monohulls without dinghies?
   P. 24, 29
   Low-freeboard racing monohull without a dinghy has the least windage. Cruising boats with dinghy &/or dodger &/or Bimini top has more windage.

8. Where does a monohull's pivot point move when motoring astern?
   P. 17
   The pivot point moves astern.

9. What does it take to realize effective rudder authority?
   P. 19
   Sufficient water flow over the rudder.

10. What is the easiest knot to adjust the height of a fender tied to a lifeline or stanchion?
    P 42, 126
    The clove hitch

11. What if the purpose of a boat hook?
    P. 39
    To extend the reach of a crew member

12. How must rudder authority be maintained on monohulls with twin rudders under forward power?
    P. 19
    Rudder authority requires headway (as do most monohulls with sail drive engines).

13. What precaution with the wheel should be maintained when maneuvering in reverse gear?
    P. 19
    Maintain a firm control of the wheel to prevent the rudder slammed to its stops

14. How does the stern move in relation to the bow when bow thrusters are engaged?
    P. 96
    It moves in the opposite direction from the bow.

15. What causes the tendency to "lose the bow" (bow is blown downwind) when stopped or moving slowly when the boat is pointed into the wind?
    P. 29
    There is less underwater resistance at the bow.

16. How do most sailboats' orientation react when stopped in a current?
    P. 30
    Will remain in the same orientation and drift dow-current.

17. How should fenders be placed when tied to a fixed dock with a moderate tidal range?
    P. 37-39
    Vertically along the length of the boat.

18. In which direction does a forward spring line hold the boat?
    P. 40
    It pulls the boat forward.

19. Modern dock lines are composed of what kind of fiber?
    P. 40
    Nylon (It's more elastic than Dacron which is often used for running rigging.)

20. "Taking a turn" describes what kind of action with a line?
    P. 46
    Holding a boat in place by using the friction of a line around a cleat or piling.

21. What is the advantage of using a bowline to tie a boat in a slip to a piling?
    P. 43
    It forms a non-tightening loop that can be lifted off the piling when departing.

22. What is the advantage in tying a boat to floating docks verses fixed?
    P. 56
    Dock lines don't have to be adjusted for tidal changes.

23. When maneuvering under power, what is the advantage of using a transit?
    P. 70, 71
    It allows you to compensate for wind or current to remain on course.

24. What is the advantage of maneuvering into the current when docking under power?
    P. 30
    Heading into the current gives maximum rudder authority with the increased speed through the water while maintaining minimum speed relative to the dock.

25. When entering bow first with wind from astern, how can a spring line be rigged to prevent the bow from hitting the end of a slip.
    P. 84
    An aft led spring-line to a cleat or piling can help to prevent the bow from hitting the end of the slip.

26. What is the most effective method for departing a side tie when the wind is pushing the boat against the dock?
    P. 85
    An aft led spring-line from the bow while motoring forward with thrust off the rudder to push the stern away from the dock. (The greater distance between the pivot point and the thrust point results in greater turning ability than using a forward led spring line from the stern.)

27. How can you use a spring line to pivot a boat into a slip stern first?
    P. 92
    Rig a forward let spring line from your stern cleat to the piling or cleat and engage reverse gear.

28. How can you use a spring line to pivot a boat leaving a slip bow first to help the boat turn into a crosswind?
    P. 89
    Take a spring line from the windward outer piling/cleat to the midship cleat; pivot on the spring line when the stern is clear of the slip.

29. What is the safest action to take when a sudden squall arrives as you approach a marina?
    P. 33
    Wait for the squall to pass before attempting to dock.

30. What is the advantage of using Mediterranean mooring versus other docking methods?
    P. 94
    It optimizes the available space on seawalls and docks.

31. When Mediterranean mooring how are lazy lines utilized?
    P. 94, 95

Back to the seawall along side of the lazy line and retrieve it from the stern quarter, then walk it to the bow to secure the line.

32. What aspect can make catamarans easier to dock than monohulls?
P. 100
You can use differential power provided by 2 widely-spaced engines.

33. Where does the pivot point of a catamaran move when using differential power?
P. 17
It moves toward the hull with lesser thrust.