

## Multiple Choice Questions

- The buoyant force on an object is dependent on
  - the object's density.
  - the mass of the object.
  - the submerged volume of the object.
  - the shape of the object.
- The buoyant force on an object submerged in a fluid depends on
  - the object's density.
  - the fluid's density.
  - the acceleration due to gravity.
  - (a) and (b) but not (c).
  - (b) and (c) but not (a).
- The property that most determines whether or not an object will float in oil is the object's
  - weight.
  - mass.
  - density.
  - volume.
- An object can float provided its \_\_\_\_\_ is \_\_\_\_\_ than the \_\_\_\_\_ of the fluid,
  - mass . . . less . . . mass
  - density . . . less . . . density
  - mass . . . greater . . . density
  - density . . . less . . . mass
- Any object submerged in a fluid experiences an upward buoyant force equal in magnitude to the \_\_\_\_\_ of the fluid displaced by the object.
  - volume
  - intensity
  - weight
  - size
- What Greek letter is the symbol for mass density?
  - $\rho$
  - $\gamma$
  - $\beta$
  - $\alpha$
- What are the units for mass density?
  - kg/m<sup>3</sup>
  - N•m
  - kg/sec<sup>2</sup>
  - J/sec
- What is the unit of the buoyant force?
  - buoy
  - Liter
  - kilogram
  - newton