1. What is the upward force exerted by a liquid on an object?
   A. Thrust
   B. Pressure
   C. Buoyant force
   D. Gravitational force (C)

Explanation : Buoyant force is the upward force exerted by the liquid.

2. When will an object float?
   A. Weight > Upthrust
   B. Weight < Upthrust
   C. Density > Liquid
   D. Density = Liquid (B)

Explanation : The object floats if its weight is less than the upthrust.

3. When will an object sink?
   A. Weight < Upthrust
   B. Weight > Upthrust
   C. Density = Liquid
   D. Density < Liquid (B)

Explanation : The object sinks if its weight is greater than the upthrust.

4. Density is defined as?
   A. Mass per unit area
   B. Mass per unit volume
   C. Volume per unit mass
   D. Weight per unit volume (B)

Explanation : Density is mass per unit volume.

5. Archimedes' principle states that the buoyant force is?
   A. Equal to the weight of the object
   B. Equal to the weight of the displaced fluid
   C. Less than the weight of the displaced fluid
   D. Equal to the volume of the object (B)

Explanation : The buoyant force equals the weight of the displaced fluid.

6. What happens to apparent weight when submerged?
   A. Decreases
   B. Increases
   C. Remains unchanged
   D. May increase or decrease (A)

Explanation : Apparent weight decreases when submerged.

7. Which principle is used in designing submarines?
   A. Pascal's Law
   B. Archimedes' Principle
   C. Boyle's Law
   D. Newton's Laws (B)

Explanation : Archimedes' principle is used in submarine design.

8. The loss in weight when weighed in a liquid is equal to?
   A. Weight of the liquid displaced
   B. Weight in air
   C. Half weight in air
   D. Volume displaced (A)

Explanation : Loss in weight is the weight of liquid displaced.

9. Which object floats on water?
   A. Stone
   B. Wood
   C. Gold
   D. Lead (B)

Explanation : Wood floats due to lower density than water.

10. Lactometers are based on?
    A. Pascal's Law
    B. Archimedes' Principle
    C. Newton's Law
    D. Coulomb's Law (B)

Explanation : Lactometers use Archimedes' principle.