



1. Even though stone also attracts earth towards itself, earth does not move
  - (a) Because of greater mass of earth
  - (b) Because of lesser mass of stone
  - (c) Force exerted by stone is less
  - (d) Force exerted earth is large
  
2. The weight of an object is :-
  - (a) Greater on earth and lesser on Moon
  - (b) Lesser on earth and Greater on earth
  - (c) Equal on both earth and Moon
  - (d) None of these
  
3. Weight of an object has S.I, unit of :- (a) Newton (b) kg (c) N/Kg (d) Kg/N
  
4. Which of the statements is correct?
  - (a) Mass is constant and weight is variable
  - (c) Both Mass and weight are variable
  - (b) Mass is variable and weight is constant.
  - (d) Both Mass and weight are constant.
  
5. State the Universal law of Gravitation?
  
6. If heavier bodies are attracted more strongly by the earth, why do they not fall faster to the ground?
  
7. State Archimedes Principle?
  
8. A stone is dropped from the edge of the roof. It passes a window 2m high in 0.1 s.



How far is the roof above the window?

9. The radius of earth is 6370Km and of mars is 3400 Km. If an object weighs 200N on earth, what will be its weight on mars. The mass of mars is 0.11 that of earth.

10. Determine the value and units of universal Gravitational constant, G?

11. What is the up thrust experienced by a cube of edge – length 5cm made of iron when completely immersed in ethanol of density  $0.8 \text{ g/cm}^3$ .

12. A stone is dropped from a height of 50m on earth. At the same time, another stone is thrown vertically upwards from the ground with a velocity upwards from the ground with a velocity of 50m/s. At what height from the ground will the two stones meet ( $g = -10 \text{ m/s}^2$ )

1. Units of pressure are :- (a)  $\text{N/m}^2$  (b)  $\text{m}^2/\text{N}$  (c)  $\text{Nm}^2$  (d) Nm

2. Units of Relative Density are :-

- (a)  $\text{Kg/m}^3$  (c) Depends on the density of the substance  
(b) Unit less (d) Depend on the density of water

3. Pressure at a point in the liquid is

- (a) Same in all directions (b) Greater in the upward direction  
(c) Greater in the downward direction (d) None of the Above



4. If the area of an object is less then the pressure acting on that object will be

- (a) Less    (b) More    (c) Independent of area    (d) None of the above

5. Define Pressure? How is thrust different from Pressure?

6. What are fluids? What are the factors on which the upward pressure at a point on a fluid depends?

7. Define density and relative density?

8. Calculate the pressure at a depth of 50m below the surface of sea. The density of sea water is  $1024 \text{ Kg/m}^3$

9. What makes a body to float or sink in a liquid?

10. The weight of balloon and gas inside it is 12KN. The volume of the balloon is  $1200 \text{ m}^3$ . The density of air is  $1.26 \text{ Kg/m}^3$ . Calculate

- a) the weight it can lift  
b) the acceleration as it rises.

11. A cylindrical block of wood of height 4.2m and mass 100Kg floats vertically in water. The relative density of wood is 0.8

- 1) What height of the block will be seen above the water?  
2) If block of lead of mass 10kg is placed, what height of the block will be seen above water?