



MORE QUESTIONS SOLVED

I. Multiple Choice Questions

Choose the correct option:

1. The device used to measure the purity of milk is
(a) hydrometer
(b) lactometer
(c) hygrometer
(d) maltometer
2. The cork floats while the nail sinks in the water, this is due to
(a) density of cork is more than nail
(b) density of nail is more than cork.
(c) density of cork is less than the density of water.
(d) density of iron is less than the density of water.
3. The relative density of silver is 10.8 and the density of water is 10^3 kg/m^3 . The density of silver is
(a) $1.8 \times 10^4 \text{ N/m}^3$
(b) $10.8 \times 10^3 \text{ N/m}^3$
(c) $1.8 \times 10^4 \text{ kg/m}^3$
(d) $10.8 \times 10^4 \text{ kg/m}^3$
4. Buoyant force exerted by different fluids on a given body is
(a) same
(b) different
(c) zero
(d) negligible
5. Liquid A is denser than liquid B, a body of wood is dipped in both the liquids? The buoyant force experienced by the body in
(a) liquid A is more
(b) liquid B is more
(c) liquid A is less
(d) none of the above

Answer: 1 -(b), 2—(c), 3—(b), 4-(b), 5—(a).

II. Very Short Answer Type Questions

Question 1. What is the S.I. unit of thrust?

Answer: Newton.

Question 2. What is the S.I. unit of pressure?

Answer: The S.I. unit of pressure = N/m^2 = Pascal.

Question 3. Define thrust.

Answer: The net force exerted by a body in a particular direction is called thrust.

Question 4. Define pressure.

Answer: The force exerted per unit area is called pressure.

Question 5. Why is it easier to swim in sea water than in river water?

Answer: The density of sea water is more due to dissolved salts in it as compared to the density of river water. Hence the buoyant force

exerted on the swimmer by the sea water is more which helps in floating and makes swimming easier.

Question 6. Why a truck or a motorbike has much wider tyres?

Answer: The pressure exerted by it can be distributed to more area, and avoid the wear and tear of tyres.

Question 7. Why are knives sharp?

Answer: To increase the pressure, area is reduced,
As pressure $\propto 1/\text{Area}$ hence the pressure or force exerted on a body increases.

Question 8. Why is the wall of dam reservoir thicker at the bottom?

Answer: The pressure of water in dams at the bottom is more, to withstand this pressure the dams have wider walls.

Question 9. Why do nails have pointed tips?

Answer: The force exerted when acts on a smaller area, it exerts larger pressure. So the nails have pointed tips.

Question 10. While swimming why do we feel light?

Answer: The swimmer is exerted by an upward force by water, this phenomenon is called buoyancy and it makes the swimmer feel light.

Question 11. Define density and give its unit.

Answer: The density of a substance is defined as mass per unit volume. Its unit is kg/m^3 .

Question 12. What is relative density?

Answer: The relative density of a substance is the ratio-of its density to that of water.

$$\text{Relative density} = \frac{\text{density of a substance}}{\text{density of water}}$$

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