

Answers

1) Density is the mass of a unit volume of a material substance.

→ Formula to find density = $\frac{\text{Mass}}{\text{Volume}}$.

2) SI unit of Density - kg/m^3

Cgs unit of Density - g/cm^3

Relation $\rightarrow \text{g/cm}^3 = 1000 \text{ kg/m}^3$

3) Density will change because

$$\rightarrow \rho = \frac{\text{Mass}}{\text{Volume}}$$

\rightarrow The volume will decrease.

4.7 Density is directly or indirectly proportional to temperature

→ As temperature decreases density increases

→ As temperature increases density decreases

$$5 \rightarrow M = 5 \text{ kg} = 5000 \text{ g}$$

$$V = 5 \text{ L} = 5000 \text{ cm}^3$$

$$D = \frac{M}{V}$$

$$\frac{5000 \text{ g}}{5000 \text{ cm}^3} = 1 \text{ g/cm}^3 = 1 \text{ g cm}^{-3}$$