

Revision 1st Chapter

1. The density of a substance is defined as the mass of a unit volume of that substance.

2. The SI Unit of density is $\frac{\text{kg}}{\text{m}^3}$
and the CGS Unit of it is $\frac{\text{g}}{\text{cm}^3}$

3. $1 \text{ kg} = 1000 \text{ g}$
or $1 \text{ g} = \frac{1}{1000} \text{ kg}$

and

$$\begin{aligned} 1 \text{ m}^3 &= (100 \text{ cm})^3 \\ &= 100 \times 100 \times 100 \text{ cm}^3 \\ &= 10,00,000 \text{ cm}^3 \end{aligned}$$

$$\text{or } \frac{1}{10,00,000} \text{ m}^3$$

~~So~~ So, $1 \text{ g cm}^{-3} = \frac{1 \text{ g}}{1 \text{ cm}^3}$

$$= \frac{1}{1000} \text{ kg} = \frac{10,00,000 \text{ kg m}^3}{1000}$$
$$\frac{1}{10,00,000} \text{ m}^3$$

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$$= 1000 \text{ kg m}^{-3}$$

~~So~~ So, $1 \text{ g cm}^{-3} = 1000 \text{ kg m}^{-3}$

4. The density of Water is maximum at 4°C ~~then~~ it decreases when it is cooled from 4°C to 0°C on its heated above.

5. mass = 5 kg

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

Volume = 5 L

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

$$\text{Density} = D = \frac{m}{V}$$

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

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

2nd Chapter

1.

Mass

Weight

* Mass is the Matter Contained in a body.

Weight is force of gravity acting on a body.

* Mass is Constant

Weight ~~is~~ Changes from place to place.

2.

When you sit on a train and look outside the train which is moving you ~~them~~ feel that train is in motion at the same time

When you look to the roof of train constantly you are in rest hence its proved that rest and motion are related.