

Co-ordinator
Biswajit Ghosh.

PHASE - II

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Std - VIII Sub - Physics

Chpt - 2 (Physical Quantities and measurement)

1) Density - $\frac{\text{mass}}{\text{Volume}}$ SI = kg/m^3
C.G.S. = g/cm^3

2) To determine the density of an irregular solid.

By using Eureka can / measuring cylinder

Not given

To determine the density of a regular solid

Cube
 $V = (\text{side})^3$

cubeoid
 $V = l \times b \times h$

Cylinder $V = \pi r^2 h$

3) To determine the density of a liquid

By Density bottle.


Numerical A solid weighs 62.5g on a precise balance. The initial level of water in a measuring cylinder is 45.0ml. The level of water rose to 70.0ml when the solid is immersed into the water. Determine density of the solid.


(DO it in copy)

Ans - 2.5g/ml.

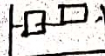
Density of solid > Liquid > Gas.

4) Floating and Sinking with reference to density

(i) If Density of solid > density of liquid = sink  eg stone.

(ii) Density = density of liquid = float 

eg. drop of olive oil when placed in a mixture of water and alcohol floats wholly immersed in it

(iii) Density < density of liquid 

eg. wood, ice, Cork.

Iron floats on mercury because density of iron = 7.86g/ml
" " mercury = 13.6g/ml.

5) Plimsoll line - also called international load line

marked on ship's hull that indicates the maximum depth to which the vessel may be safely immersed when loaded with cargo.

Chpt - 1

Q1 in book