

# PHYSICS ICSE PROJECT

## Experiment - 1

Object :-

Find the diameter of the bob by using Vernier Callipers and calculate its volume.

Apparatus :-

Vernier Callipers, bob.

Observation & Calculation :-

Value of 1 main scale division = \_\_\_\_\_ cm

Number of division in vernier scale  
= \_\_\_\_\_

$\therefore$  Least Count =  $\frac{\text{Value of 1 main scale division}}{\text{No. of division in vernier}}$

\_\_\_\_\_

= \_\_\_\_\_ cm

No. of observation	Main scale reading (x) cm.	Coinciding vernier division (y)	Total diameter (cm) $x + (y \times L.C)$	Mean (cm)	Zero error	Corrected diameter (cm)
1						
2						
3						

$\therefore$  Diameter of the bob (d) = \_\_\_\_\_ cm

$\therefore$  Radius of the bob (r) = \_\_\_\_\_ cm

$\therefore$  Volume of the bob =  $\frac{4}{3} \pi r^3$

= \_\_\_\_\_ cm<sup>3</sup>

## Experiment - 2

Object :-

Find the diameter of the wire using micrometer screw gauge and find its area of cross-section.

Apparatus :-

Screw gauge, the given wire.

Observation & Calculation :-

Screw pitch = Distance moved by the screw  
in one revolution  
= \_\_\_\_\_ mm.

Number of division in circular scale = \_\_\_\_\_

∴ Least Count (L.C)

$$= \frac{\text{Screw pitch}}{\text{No. of division in circular scale}}$$

$$= \text{_____ mm.}$$

No. of observation	Main scale reading (x) mm.	Coinciding circular scale division (y)	Total diameter x + (y x L.C) mm.	Mean (mm)	Zero error	Corrected diameter (mm)
1						
2						
3						

∴ Diameter of the wire (d) = \_\_\_\_\_ mm

∴ Radius of the wire (r) = \_\_\_\_\_ mm

∴ Area of cross-section =  $\pi r^2$   
= \_\_\_\_\_ mm<sup>2</sup>