① A solid metallic cylinder of base radius 5 cm and height 7 cm is melted to form cones, each of height 1 cm and base radius 1 mm. Find the number of cones.

A) 49500
B) 51500
C) 52500
D) 53500

Ans :- $r = 5$ cm
$h = 7$ cm

Volume of cylinder $= \pi r^2 h$
$= 3.14 \times 5 \times 5 \times 7$
$= 549.78$ cm^3

Cone $H = 1$ cm
$R = 1$ mm $= 1 \times 0.1$ cm $= 0.1$ cm

Volume of cone $= \frac{1}{3} \pi R^2 H$
$= \frac{1}{3} \times 3.14 \times 0.1 \times 0.1 \times 1$
$= 0.01$ cm^3

No. of cones $= \frac{549.78}{0.01} = 54978$