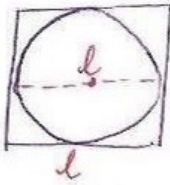


5

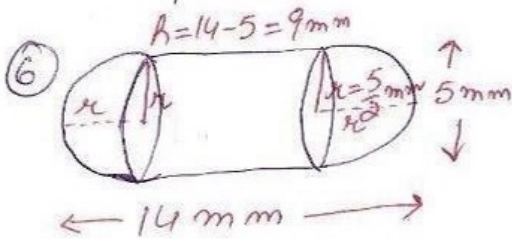
ex. 13.1



$$r \text{ of h.s.} = \frac{l}{2}$$

area of remain. portion

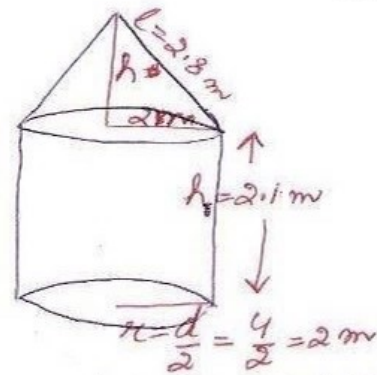
$$\begin{aligned} &= \text{S.A. of cube} + \text{CSA of h.s.} \\ &\quad - \text{area of h.s. base} \\ &= 6e^2 + 2\pi r^2 - \pi r^2 \\ &= 6e^2 + \pi r^2 \\ &= 6 \times l^2 + \pi \times \left(\frac{l}{2}\right)^2 \\ &= l^2 \left(6 + \frac{\pi}{4}\right) \\ &= \frac{l^2}{4} (24 + \pi) \text{ Sq. units} \end{aligned}$$



Surface area of capsule

$$\begin{aligned} &= \text{CSA of 2 h.s. ends} \\ &\quad + \text{CSA of cylinder.} \\ &= 2 \times 2\pi r^2 + 2\pi r h \\ &= 2\pi r (2r + h) \\ &= 2 \times \frac{22}{7} \times \frac{5}{2} \left(2 \times \frac{5}{2} + 9\right) \\ &= \frac{110}{7} \times 4^2 \\ &= 220 \text{ cm}^2 \end{aligned}$$

7

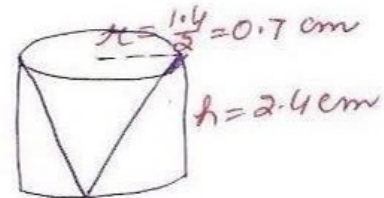


area of canvas used

$$\begin{aligned} &= \text{CSA of cone} + \text{CSA of cyl} \\ &= \pi r l + 2\pi r h \\ &= \pi r (l + 2h) \\ &= \frac{22}{7} \times 2 (2.8 + 4.2) \\ &= \frac{44}{7} \times 7 \\ &= 44 \text{ m}^2 \end{aligned}$$

$$\begin{aligned} \text{Cost} &= 44 \times 500 \\ &= \text{Rs } 22000 \end{aligned}$$

8



$$\begin{aligned} l &= \sqrt{r^2 + h^2} \\ &= \sqrt{0.7^2 + 2.4^2} \\ &= \sqrt{6.25} = 2.5 \text{ cm} \end{aligned}$$

total surface area of solid

$$\begin{aligned} &= \text{CSA of cyl.} + \text{CSA of cone} \\ &\quad + \text{area of base} \\ &= 2\pi r h + \pi r l + \pi r^2 \\ &= \pi r (2h + l + r) \\ &= \frac{22}{7} \times 0.7 (4.8 + 2.5 + 0.7) \\ &= \frac{22}{10} \times 8 \\ &= 17.6 \\ &= 18 \text{ cm}^2 \end{aligned}$$