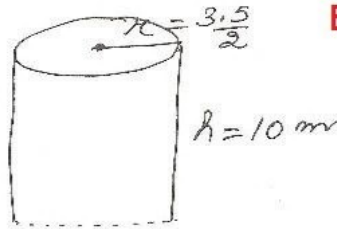


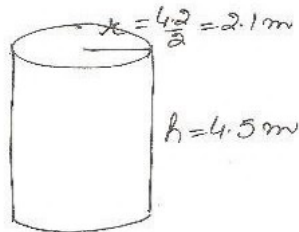
7



$$\begin{aligned} \text{(i) Inner C.S.A} &= 2\pi r h \\ &= 2 \times \frac{22}{7} \times \frac{3.5}{2} \times 10 \\ &= 110 \text{ m}^2 \end{aligned}$$

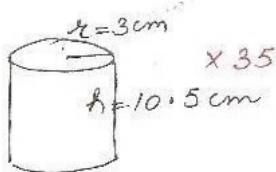
$$\begin{aligned} \text{(ii) Cost of plastering per} \\ \text{Sq. m.} &= \text{Rs } 40 \\ \text{Cost of plastering } 110 \text{ m}^2 \\ &= 40 \times 110 \\ &= \text{Rs } 4400 \end{aligned}$$

8



$$\begin{aligned} \text{C.S.A of tank} &= 2\pi r h \\ &= 2 \times \frac{22}{7} \times 2.1 \times 4.5 \\ &= 59.4 \text{ m}^2 \\ \text{Let actual steel used} \\ &= x \text{ m}^2 \\ x - \frac{x}{12} &= \text{t.S.A.} \\ \Rightarrow \frac{11}{12} x &= 2\pi r (r+h) \end{aligned}$$

11



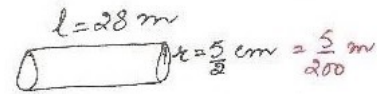
$$\begin{aligned} \text{Area of cardboard required} &= [2\pi r h + \pi r^2] \times 35 \\ &= \pi r (2h+r) \times 35 \\ &= \frac{22}{7} \times 3 (2 \times 10.5 + 3) \times 35 \\ &= \frac{22}{7} \times 3 (21 + 3) \times 35 \\ &= \frac{66}{7} \times 24 \times 35 \\ &= 7920 \text{ cm}^2 \end{aligned}$$

$$\Rightarrow \frac{11}{12} x = 2 \times \frac{22}{7} \times \frac{3.5}{2} \times 10 (2.1 + 4.5)$$

$$\begin{aligned} \Rightarrow x &= 48 \times 3 \times 6.6 \\ &= 95.04 \end{aligned}$$

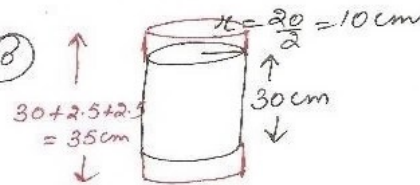
$$\therefore \text{reqd. quantity} = 95.04 \text{ m}^2$$

8



$$\begin{aligned} \text{Total radiating surface} \\ &= 2\pi r h \\ &= 2 \times \frac{22}{7} \times \frac{5}{2} \times 28 \\ &= 4.4 \text{ m}^2 \end{aligned}$$

10



$$\begin{aligned} \text{Quantity of cloth} \\ \text{required} &= 2\pi r h \\ &= 2 \times \frac{22}{7} \times 10 \times 35 \\ &= 2200 \text{ cm}^2 \end{aligned}$$