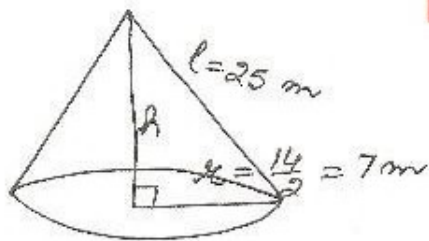


6

Ex 13.3



$$\begin{aligned}
 h &= \sqrt{l^2 - r^2} \\
 &= \sqrt{25^2 - 7^2} \\
 &= \sqrt{(25-7)(25+7)} \\
 &= \sqrt{18 \times 32} \\
 &= \sqrt{3 \times 3 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2} \\
 &= 3 \times 2 \times 2 \times 2 \\
 &= 24 \text{ m}
 \end{aligned}$$

$$CSA = \pi r l \text{ m}^2$$

$$\text{cost of w.w. m}^2 = \text{Rs } 210$$

$$\text{cost of w.w. } (\pi r l \text{ m}^2)$$

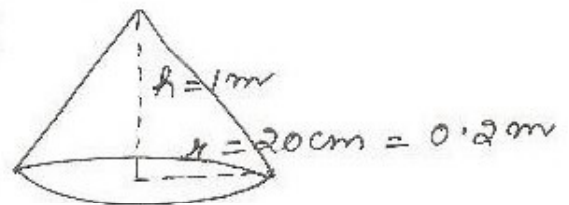
$$\begin{aligned}
 &= \frac{210 \pi r l}{100} \\
 &= \frac{210 \times 22}{100} \times 7 \times 25
 \end{aligned}$$

$$= \text{Rs } 1155$$

area of sheet required
for 10 caps = $10 \pi r l$

$$\begin{aligned}
 &= 10 \times \frac{22}{7} \times 7 \times 25 \\
 &= 5500 \text{ cm}^2
 \end{aligned}$$

8



$$l = \sqrt{r^2 + h^2}$$

$$\begin{aligned}
 &= \sqrt{(0.2)^2 + 1^2} \\
 &= \sqrt{1.04} \\
 &= 1.02 \text{ m}
 \end{aligned}$$

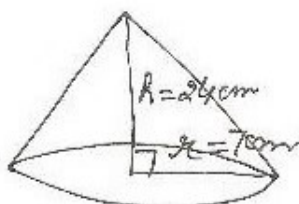
$$CSA \text{ of 50 cones} = 50 \pi r l$$

$$\begin{aligned}
 &= 50 \times 3.14 \times 0.2 \times 1.02 \\
 &= 31.4 \times 1.02 \\
 &= 32.028 \text{ m}^2
 \end{aligned}$$

$$\text{cost of painting } 1 \text{ m}^2 = \text{Rs } 12$$

$$\begin{aligned}
 \text{cost of paint} &= 32.028 \times 12 \\
 &= 384.336 \\
 &= \text{Rs } 384.34
 \end{aligned}$$

7



$$\begin{aligned}
 l &= \sqrt{h^2 + r^2} \\
 &= \sqrt{24^2 + 7^2} \\
 &= \sqrt{576 + 49} \\
 &= \sqrt{625} \\
 &= 25 \text{ cm}
 \end{aligned}$$