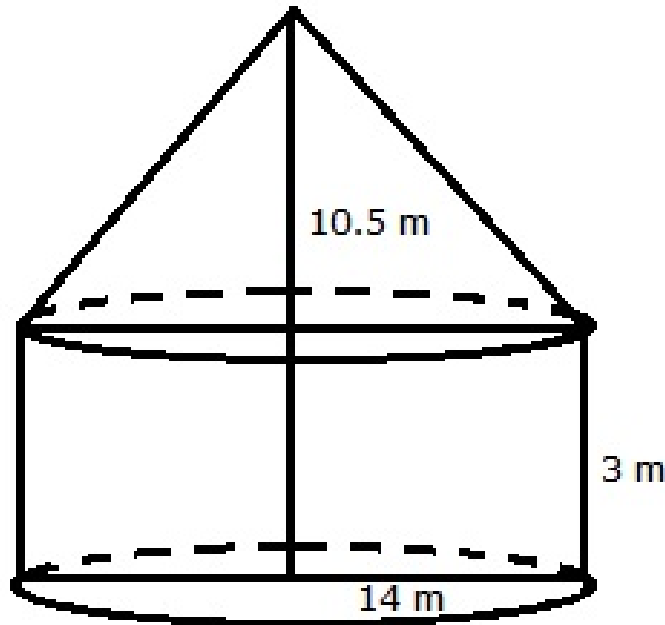




Exercise 19A

Question 1:



Radius of the cylinder = 14 m

And its height = 3 m

Radius of cone = 14 m

And its height = 10.5 m

Let l be the slant height

$$\therefore l^2 = (14)^2 + (10.5)^2$$

$$l^2 = (196 + 110.25) \text{ m}^2$$

$$l^2 = 306.25 \text{ m}^2$$

$$l = \sqrt{306.25} \text{ m} \\ = 17.5 \text{ m}$$

Curved surface area of tent

= (curved area of cylinder + curved surface area of cone)

$$= 2\pi rh + \pi rl$$

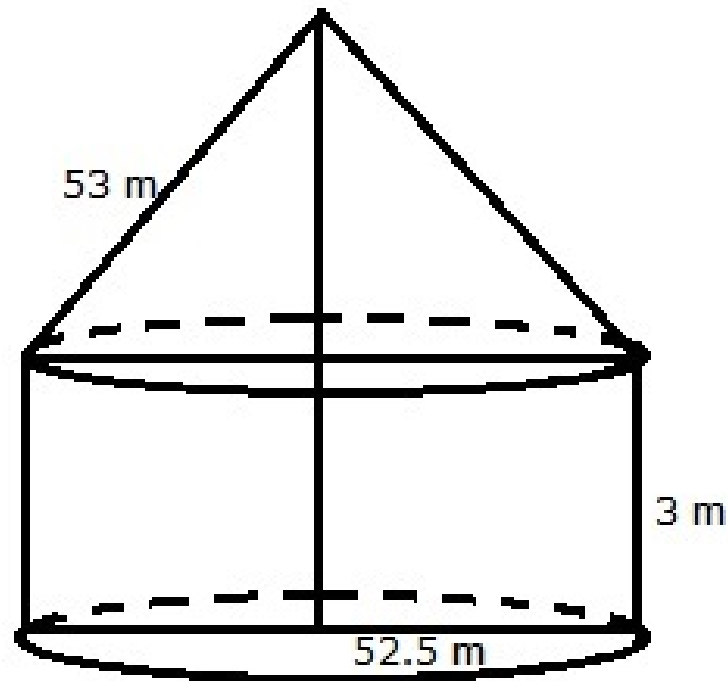
$$= \left[\left(2 \times \frac{22}{7} \times 14 \times 3 \right) + \left(\frac{22}{7} \times 14 \times 17.5 \right) \right] \text{ m}^2$$

$$= (264 + 770) \text{ m}^2 = 1034 \text{ m}^2$$

Hence, the curved surface area of the tent = 1034

Cost of canvas = Rs.(1034 × 80) = Rs. 82720

Question 2:



For the cylindrical portion, we have radius = 52.5 m and height = 3 m

For the conical portion, we have radius = 52.5 m

And slant height = 53 m

Area of canvas = $2rh + \pi r l = r(2h + l)$

$$= \left[\frac{22}{7} \times 52.5 \times (2 \times 3 + 53) \right] \text{m}^2$$

$$= \left(22 \times \frac{15}{2} \times 59 \right) \text{m}^2 = 9735 \text{m}^2$$

***** END *****