

Find the radius and slant height of a cone formed by bending a sector with radius 10 cm and central angle 60° .

Ans: - $R = 10 \text{ cm}$

$$\alpha^\circ = 60$$

$$r = ?$$

$$l = ?$$

$$\frac{r}{l} = \frac{\alpha}{360}$$

$$\frac{\theta}{l} = R = l.$$

$$\therefore l = 10 \text{ cm}$$

$$\frac{\theta}{10} = \frac{60}{360}$$

$$\frac{\theta}{10} = \frac{1}{6}$$

$$r = \frac{10}{6} \text{ cm.}$$