

Exercise 13B

Question 1:

Here, r = 5 cm and h = 21 cm

∴ Volume of the cylinder = $(\Pi r^2 h)$ = $\left(\frac{22}{7} \times 5^2 \times 21\right) \text{cm}^3$ = $\left(\frac{22}{7} \times 25 \times 21\right) \text{cm}^3$ = 1650 cm^3 .

∴ Curved surface area of a cylinder = $(2\Pi rh)$ = $2 \times \left(\frac{22}{7} \times 5 \times 21\right) cm^2$ = $660 cm^2$

Question 2:

Here, diameter = 28 cm

Radius =
$$\left(\frac{28}{2}\right)$$
 cm = 14 cm and

height = 40 cm

∴ Curved surface area = (2∏rh)

$$= \left(2 \times \frac{22}{7} \times 14 \times 40\right) \text{cm}^2$$
$$= 3520 \text{cm}^2$$

Total surface area = $(2\Pi rh + 2\Pi r^2)$

$$= \left(2 \times \frac{22}{7} \times 14 \times 40 + 2 \times \frac{22}{7} \times 14^{2}\right)$$
$$= (3520 + 1232) = 4752 \text{ cm}^{2}$$

 \therefore Volume of the cylinder = $(\Pi r^2 h)$

$$= \left(\frac{22}{7} \times 14^{2} \times 40\right) \text{cm}^{3}$$
$$= \left(\frac{22}{7} \times 14 \times 14 \times 40\right) \text{cm}^{3}$$
$$= 24640 \text{ cm}^{3}.$$

******* END *******