

7 am

Homework

$$8 \quad 1) \text{ Height} - 9 \text{ m}$$

$$\text{Radius} - 12 \text{ m}$$

$$9 \quad \text{latent height} - ?$$

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

$$(ii) \text{ Area} = \pi r^2$$

$$= \frac{22}{7} \times 12 \times 12$$

$$= 452.6 \text{ m}^2$$

$$10 \quad l = \sqrt{9^2 + 12^2}$$

$$l = \sqrt{81 + 144}$$

$$\text{No. of people} = \frac{452.6}{2}$$

$$11 \quad l = \sqrt{225}$$

$$l = 15 \text{ m}$$

$$= 226 \frac{1}{2} \text{ people}$$

12 noon

$$\text{CSA} = \pi r l$$

$$= \frac{22}{7} \times 12 \times 15$$

$$(iii) \text{ Volume} = \frac{1}{3} \pi r^2 h$$

$$2 \quad = \frac{22}{7} \times 180$$

$$= \frac{1}{3} \times \frac{22}{7} \times 12 \times 12 \times 9$$

$$3 \quad = 565.7 \text{ m}$$

$$= \frac{1}{3} \times \frac{22}{7} \times 144 \times 9$$

$$4 \quad \text{Total cost} = 565.7 \times 10$$

$$= \underline{\underline{5657}}$$

$$= \frac{1}{3} \times \frac{22}{7} \times 1296$$

$$= \frac{28,512}{21}$$

$$= 1,357.71 \text{ m}^3$$

$$\text{No. of people} = \frac{1357}{15}$$

$$= 90 \text{ people}$$

2024

357 - 366 Week 51

7 am (iv) Space needed per person = 20 m^3
 Number of people = 100

8
$$\text{Volume} = 20 \times 100$$

 9
$$= 2000 \text{ m}^3$$

10
$$V = \frac{1}{3} \pi r^2 h$$

11
$$2000 = \frac{1}{3} \times \frac{22}{7} \times 12 \times 12 \times h$$

12 noon
$$= \frac{1}{3} \times \frac{22}{7} \times 144 \times h$$

1 pm
$$= \frac{3168}{21} \times h$$

2
$$\text{height} = \frac{2000 \times 21}{3168}$$

3
$$h = 13.25 \text{ m}$$

4 2) height - 3.5 cm

5 capacity - 3.3 litres

6 1 litre = 1000 cm^3

7
$$\text{Volume} = 1000 \times 3.3$$

$$= 3300 \text{ cm}^3$$

7 am Volume = $\frac{1}{3} \pi r^2 h$

8 $3300 = \frac{1}{3} \times \frac{22}{7} \times r^2 \times 3.5$

9 $= \frac{22 \times 3.5 \times r^2}{3 \times 7}$

10 $= \frac{77}{3 \times 7} \times r^2$

11 $= \frac{11}{3} \times r^2$

12 noon $r^2 = \frac{3300 \times 3}{11}$

1 pm $= 900$

$r = \sqrt{900}$

2 $r = 30 \text{ cm}$

3 Diameter = $2r$

$= 2 \times 30$

$= 60 \text{ cm}$

3) CSA = $\pi r l$

$792 = \frac{22}{7} \times 4r \times 7r$

$= \frac{22 \times 28r^2}{7}$

$= \frac{616r^2}{7}$

$= 88r^2$

$r^2 = \frac{792}{88}$

$r^2 = 9$

$r = 3$

$r = 4r$

$= 4 \times 3$

$= 12 \text{ cm}$

$l = 7r$

$= 7 \times 3$

$= 21 \text{ cm}$

Radius is 12 cm.

21 December

2024

359 - 366 Week 52

7 am 4) Volume = $\frac{2}{3} \pi r^3$

8 $= \frac{2}{3} \times \frac{22}{7} \times 3.5 \times 3.5 \times 3.5$

9 $= \frac{44 \times 42.875}{3 \times 7}$

10 $= \frac{1886.5}{21}$

11 $= 89.83 \text{ cm}^3$

12 noon

Total Surface Area = $3\pi r^2$

1 pm

$= \frac{3 \times 22}{7} \times 3.5 \times 3.5$

2 $= \frac{66 \times 12.25}{7}$

3 $= \frac{808.5}{7}$

4 $= 115.5 \text{ cm}^2$

5

6

7