



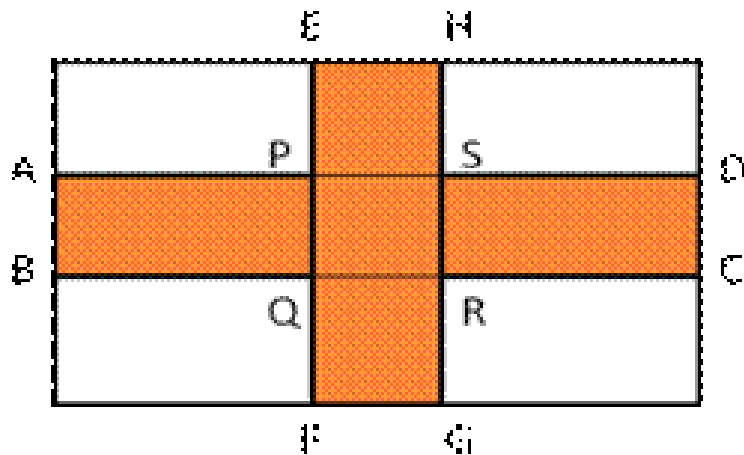
Exercise 17B

Question 17:

Area of road ABCD

$$= (80 \times 5) \text{ m}^2$$

$$= 400 \text{ m}^2$$



Area of road EFGH

$$= (64 \times 5) \text{ m}^2$$

$$= 320 \text{ m}^2$$

Area of common road PQRS

$$= (5 \times 5) \text{ m}^2$$

$$= 25 \text{ m}^2$$

Area of the road to be gravelled

$$= (400 + 320 - 25) \text{ m}^2 = 695 \text{ m}^2$$

Cost of gravelling the roads

$$= \text{Rs. } (695 \times 24) \text{ m}^2 = \text{Rs. } 16680$$

Question 18:

Area of four walls of room = $2(l + b) \times h$

$$= 2(14 + 10) \times 6.5 = 2 \times 24 \times 6.5$$

$$= 312 \text{ m}^2$$

$$\text{Area of two doors} = 2 \times (2.5 \times 1.2) \text{ m}^2 = 6 \text{ m}^2$$

$$\text{Area of four windows} = 4 (1.5 \times 1) \text{ m}^2 = 6 \text{ m}^2$$

Area of four walls to be painted = [Area of 4 walls - Area of two doors - Area of two windows]

$$= [312 - 6 - 6] \text{ m}^2 = 300 \text{ m}^2$$

Cost of painting the walls = Rs 38 per m^2

Cost of painting 300 m^2 of walls = Rs 38 \times 300

$$= \text{Rs. } 11400$$

Question 19:

Cost of papering the wall at the cost of Rs. 30 m^2 per in Rs. 7560

$$\therefore \text{Area of 4 walls} = \frac{7560}{30} = 252 \text{ m}^2$$

Let h meter be the height and b m be the breadth of the room

Length of the room = 12 m

Area of four walls = $2 \times (12 + b) \times h$

$$2(12 + b) \times h = 252$$

$$\text{Or } (12 + b)h = 126 \text{ -----(1)}$$

The cost of covering the floor with mat at the cost of Rs. 15 per m^2 is Rs. 1620

$$\therefore \text{Area of floor} = 12 \times b = \frac{1620}{15}$$

$$\text{or } 12 \times b = 108 \quad \therefore b = \frac{108}{12} = 9$$

Putting value of b in (1)

$$(12 + 9)h = 126 \quad \text{or } h = \frac{126}{21} = 6$$

Thus, height of room is 6 m

***** END *****