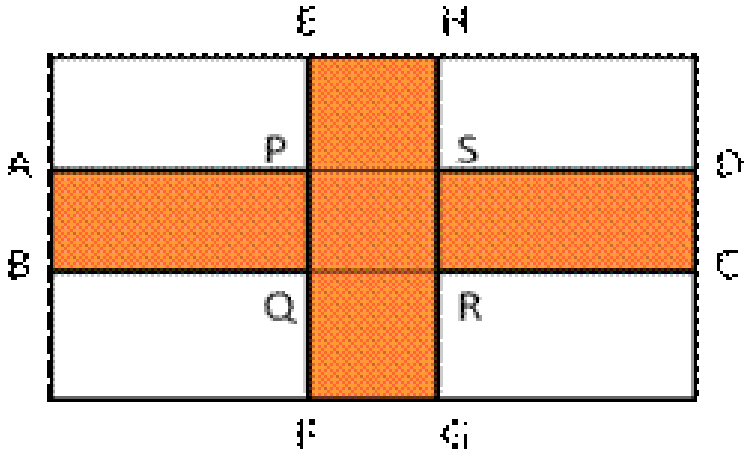
Exercise 17B

Question 17:
Area of road ABCD
= (80 × 5) m^2
= 400 m^2



Area of road EFGH
= (64 × 5) m^2
= 320 m^2
Area of common road PQRS
= (5 × 5) m^2
= 25 m^2
Area of the road to be gravelled
=(400 + 320 - 25) m^2 = 695 m^2
Cost of gravelling the roads
=Rs. (695 × 24) m^2 = Rs. 16680

Question 18:
Area of four walls of room = 2(l + b) × h
= 2(14 + 10) × 6.5 = 2 × 24 × 6.5
= 312 m^2
Area of two doors = 2 × (2.5 × 1.2) m^2 = 6 m^2
Area of four windows = 4 (1.5 × 1) m^2 = 6 m^2
Area of four walls to be painted = [Area of 4 walls - Area of two doors - Area of two windows]
= [312 - 6 - 6] m^2 = 300 m^2
Cost of painting the walls = Rs 38 per m^2
Cost of painting 300 m^2 of walls = Rs 38 x 300
= Rs. 11400

Question 19:
Cost of papering the wall at the cost of Rs. 30 m^2 per in Rs. 7560
$\therefore$ Area of 4 walls = $\frac{7560}{30}$ = 252 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 ×(12 + b) × h
2(12 + b) × h = 252

Or (12 + b) h = 126 -----(1)

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

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

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

Putting value of b in (1)

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

Thus, height of room is 6 m

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