

## Area and Perimeter Problems with Solutions Pdf

1. What will be the area of 4 metre high wall on all four sides of a rectangular hall having perimeter 64 m?

- (A) 244 m<sup>2</sup>
- (B) 256 m<sup>2</sup>
- (C) 328 m<sup>2</sup>
- (D) 384 m<sup>2</sup>

Ans: B

$$\text{Perimeter} = 64 \text{ m} \Leftrightarrow 2(l + b) = 64.$$

$$\therefore \text{Area of 4 walls} = 2(l + b) \times h = (64 \times 4)\text{m}^2 = 256 \text{ m}^2.$$

2. A rectangular field is to be fenced on three sides leaving a side of 20 feet uncovered. If the area of the field is 680 sq.feet, how many feet of fencing will be required?

- (A) 34
- (B) 40
- (C) 88
- (D) 92

Ans: C

$$\text{We have } l = 20 \text{ ft and } lb = 680 \text{ sq.ft. So, } b = 34 \text{ ft.}$$

$$\therefore \text{Length of facing} = (l + 2b) = (20 + 68) \text{ ft} = 88 \text{ ft.}$$

3. The length of a room is 5.5 m and width is 3.75 m. Find the cost of paving the floor by slabs at the rate of Rs.800 per sq. metre.

- (A) Rs. 15,000
- (B) Rs. 16,000

(C) Rs. 16,500

(D) Rs. 17,500

Ans: C

Area of the floor =  $(5.5 \times 3.75)m^2 = 20.625 m^2$ .

$\therefore$  Cost of paving = Rs.  $(800 \times 20.625) =$  Rs. 16500.

4. A lawn is in the shape of a rectangle of 80 m length and 50 m width. Outside the lawn there is a footpath of uniform 1 m width bordering the lawn. The area of the footpath is

(A)  $164 m^2$

(B)  $264 m^2$

(C)  $284 m^2$

(D)  $4264 m^2$

Ans: B

Area of the footpath =  $[(80 + 2) \times (50 + 2) - (80 \times 50)]m^2$

$= [(82 \times 52) - (80 \times 50)]m^2 = (4264 - 4000) m^2 = 264 m^2$ .

5. A rectangular lawn 80 metres by 60 metres has two roads each 10 m wide running in the middle of it, one parallel to the length and the other parallel to the breadth. Find the cost of gravelling them at Rs. 30 per square metre.

(A) Rs. 3600

(B) Rs. 36000

(C) Rs. 39000

(D) Rs. 49000

Ans: C

Area of the roads =  $(80 \times 10 + 60 \times 10 - 10 \times 10) m^2 = 1300 m^2$ .

∴ Cost of gravelling = Rs. (1300 × 30) = Rs. 39000.

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