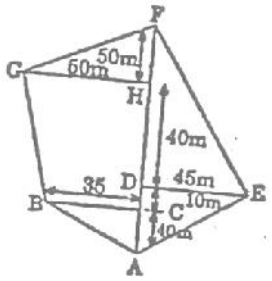
Chapter 12

ASSIGNMENT

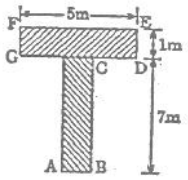
OBJECTIVE 12.1

1. The area of the field ABGFEA is :



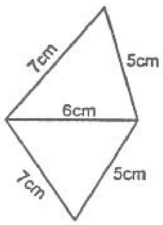
(A) 7225 m^2 (B) 7230 m^2 (C) 7235 m^2 (D) 7240 m^2

2. Area of shaded portion as shown in the figure :



(A) 12 m^2 (B) 13 m^2 (C) 14 m^2 (D) 15 m^2

3. The lengths of four sides and a diagonal of the given quadrilateral are indicated in the diagram. If a denotes the area of quadrilateral, then A is



(A) $12\sqrt{6}$ (B) $\sqrt{6}$ (C) $6\sqrt{6}$ (D) $\sqrt{6}$ ′

4. In the sides of a triangle are doubled, then its area :

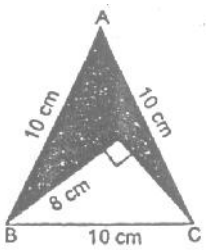
(A) Remains the same (B) Becomes doubled (C) Becomes three times (D) Becomes four times

5. Inside a triangular garden there is a flower bed in the form of a similar triangle. Around the flower bed runs a uniform path of such a width that the side of the garden are double of the corresponding sides of the flower bed. The areas of the path and the flower bed are in the ratio :

(A) 1 : 1 (B) 1 : 2 (C) 1 : 2 (D) 3 : 1

SUBJECTIVE - 12.2

1. In the given figure, ΔABC is a equilateral triangle the length of whose side is equal to 10 cm and ΔDBC is right-angled at D and BD = 8 cm. Find the area of the shaded region. Take $\sqrt{3}$ = 1.732.



2. Calculate the area of the triangle whose sides are 18 cm, 24 cm and 30 cm in length. Also, find the length of the altitude corresponding to the smallest side of the triangle.

3. The sides of a triangle are 10 cm, 24 cm and 26 cm. Find its area and the longest altitude.

4. Two sides of a triangular field are 85 m and 154 m in length, and its perimeter is 324 cm. Find (i) the area of the field, and (ii) the length of the perpendicular from the opposite vertex on the side measuring 154 cm.

5. The sides of a triangular field are 165 cm, 143 cm and 154 cm. Find the cost of ploughing it at 12 paise per sq. m.

6. The base of an isosceles triangle measures 80 cm and its area is 360 cm^2. Find the perimeter of the triangle.

7. The perimeter of an isosceles triangle is 42 cm and its base is $1\frac{1}{2}$ times each of the equal sides. Find (i) the length of each side of the triangle, (ii) the area of the triangle, and (iii) the height of the triangle.

8. The perimeter of a right angle triangle is 40 cm. Its hypotenuse is 17 cm. Find the sides containing the right angle. Also find the area of the triangle.

9. Find the area and perimeter of an isosceles right-angled triangle, each of whose equal sides measures 10 cm. Take $\sqrt{2}$ = 1.414.

10. The area of a square field in 8 hectares. How long would a man take to cross its diagonal by walking at the rate of 4 km per hour ?

11. A rhombus shaped field has green for 18 cows to graze. If each side of the rhombus is 30 m and its longer diagonal is 48 m, how much area of grass field will each cow be getting ?