

Revision Notes
Chapter –11
Perimeter and Area

- **Perimeter** is the distance around a closed figure whereas area is the part of plane occupied by the closed figure.
- **Area** is the measure of the part of plane or region enclosed by it.
- We have learnt how to find perimeter and area of a square and rectangle in the earlier class. They are:

(a) Perimeter of a square = $4 \times \text{side}$

(b) Perimeter of a rectangle = $2 \times (\text{length} + \text{breadth})$

(c) Area of a square = $\text{side} \times \text{side}$

(d) Area of a rectangle = $\text{length} \times \text{breadth}$

- Area of a parallelogram = $\text{base} \times \text{height}$
- Area of a triangle = $\frac{1}{2}$ (area of the parallelogram generated from it)
 $= \frac{1}{2} \times \text{base} \times \text{height}$

- Area of equilateral triangle = $\frac{\sqrt{3}}{4} \times (\text{side})^2$

- The distance around a circular region is known as its circumference.
- The ratio of circumference and diameter of a circle is a constant is denoted by π (pi).
- Circumference of a circle = πd , where d is the diameter of a circle and $\pi = \frac{22}{7}$ or 3.14 (approximately).
- Area of a circle = πr^2 , where r is the radius of the circle.
- Based on the conversion of units for lengths, studied earlier, the units of areas can also be converted:

$$1 \text{ cm}^2 = 100 \text{ mm}^2$$

$$1 \text{ m}^2 = 10000 \text{ cm}^2,$$

$$1 \text{ hectare} = 10000 \text{ m}^2$$