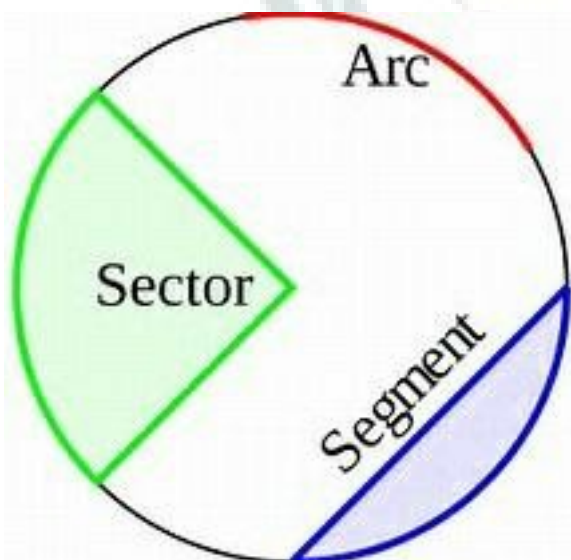# CHAPTER - 10
CIRCLES

1. **Tangent to a Circle**
2. **Number of Tangents from a Point on a Circle**
3. **Miscellaneous Questions**

- **Circle**: A circle is a collection of points in a plane which are at a constant distance from a fixed point.
- **Centre**: The fixed point is called a centre.
- **Radius**: The constant distance is called the radius.
- **Diameter**: Twice of radius is called the diameter.
- **Chord**: The line joining two points on the circumference of the circle is called a chord. The longest chord is the diameter of the circle.
- **Sector of a circle**: The region enclosed by two radii and the corresponding arc is called a sector of the circle.
- **Segment of the circle**: The region bounded by an arc and the corresponding chord is called the segment of the circle.

1. **Tangent to a Circle** : It is a line that intersects the circle at only one point.
2. **Point of contact**: The common point between the circle and the tangent is called the

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point of contact.

3. **Secant**: A line which has only two points common to a circle is called the secant.
4. There is only one tangent at a point of the circle.
5. No tangent can be drawn from a point inside the circle.
6. The tangent at any point of a circle is perpendicular to the radius through the point of contact.
7. The lengths of tangents drawn from an external point to a circle are equal.