

CHAPTER-10 | CIRCLES

QUIZ
PART-03

1. The length of the tangent from an external point A on a circle with center O is:
- always greater than OA
 - equal to OA
 - always less than OA
 - cannot be estimated (A)

Explanation: The tangent is always greater than the distance from the external point to the center of the circle (OA).

2. Two concentric circles have radii 5 cm and 3 cm. The length of the chord of the larger circle that touches the smaller circle is:
- 4
 - 5
 - 8
 - 10 (B)

Explanation: The length of the chord is 5 cm, calculated geometrically.

3. When the point lies inside the circle, the number of tangents is:
- 0
 - 1
 - 2
 - Infinite (A)

Explanation: A point inside the circle cannot have any tangents.

4. Tangents drawn from an external point to a circle are:
- Unequal in length
 - Equal in length
 - Form unequal angles
 - None of the above (B)

Explanation: Tangents from an external point are always equal in length.

5. When a point lies on the circle, the number of tangents is:
- 0
 - 1
 - 2
 - Infinite (B)

Explanation: There is exactly one tangent passing through a point on the circle.

6. The tangents from an external point to a circle form equal angles with the line joining the center to the external point:

- True
- False
- 90°
- 180° (A)

Explanation: The tangents are equally inclined to the line joining the external point and the center.

7. The angle between two tangents from an external point is:

- 90°
- 180°
- Dependent on the circle's radius
- None of the above (C)

Explanation: The angle between the tangents depends on the external point's position and the circle's radius.

8. In concentric circles, the chord of the larger circle touching the smaller circle is:

- Perpendicular to the line joining the centers
- Parallel to the line joining the centers
- Equal to the radius of the larger circle
- None of the above (A)

Explanation: The chord is always perpendicular to the line joining the centers of concentric circles.

9. If two tangents are parallel, the line joining their points of contact is:

- A radius
- A diameter
- A secant
- None of the above (B)

Explanation: The line joining the points of contact of parallel tangents is the diameter.

10. The tangents from an external point to a circle:

- Touch the circle at two points
- Touch the circle at one point
- Never touch the circle
- Can touch the circle at multiple points (B)

Explanation: Tangents touch the circle at exactly one point.