# Class 09 Chapter – Circle   CBSE Test Paper – 03

Three marks Questions

1. Q. If the non – parallel sides of trapezium are equal, prove that sum of each pair of opposite angles is supplementary

2. Q. Prove that the line segment joining the mid-points of two equal chords of a circle makes equal angles on its same side with the chords.

3. Q. If two intersecting chords of a circle make equal angles with the diameter passing through their point of intersection, then prove that the chords are equal.

Four marks Questions

4. Q. Prove that "The angle subtended by an arc at the centre is double the angle subtended by it at any point on the remaining part of the circle".

5. Q. "If two non parallel sides of a trapezium are equal then prove that it is cyclic quadrilateral".

6. Q. Prove that the quadrilateral formed by internal angle bisectors of any quadrilateral is cyclic.

7. Q. AB is a diameter of the circle, CD is a chord equal to the radius of the circle. AC and BD when extended intersect at a point E. Prove that $< AEB = 60^0$.
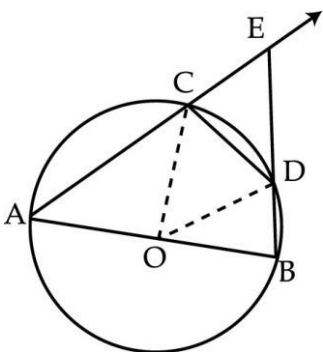
8. Q. In, the figure, if a line interacts two concentric circles with centre O at A,B,C and D, prove that AB = CD
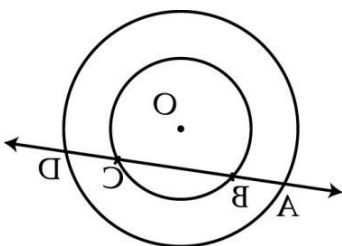
9. Q. ABCD is a cyclic quadrilateral whose diagonals interest at E. If < DBC = 70^0 , <BAC = 30, find < BCD. Further, if AB =BC, find < ECD.

10. Q. Show that angle subtended by minor arc at the centre is double the angle subtended by it at any point on the remaining part of a circle.

11.Q. Prove that the circle drawn on any equal side of an isosceles triangle as diameter bisects the third side.

12.Q. 3 girls Sapna, Mariam and Naveena are playing a game by standing on a circle of radius 5m drawn in a park. Sapna throws a ball to Mariam, Marium to Naveena, Naveena to Sapna. If the distance between Sapna and Mariam and between marium and Naveena is 6m each, what is the distance between Spna and Naveena.

13. Q. In the figure BD = DC and <DBC = 25^0 Find the measure of <BAC
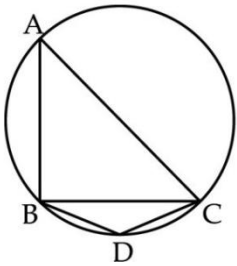
14. Q. Prove that bisectors of the opposite angle of cyclic quadrilateral intersect the corresponding circle at the end of diameter.

15.Q. If circles are drawn taking two sides of a triangle as diameters, prove that the point of intersection of these circles lie on the third side.

16. Q. In figure, PS = SR, angle RPS = 54^0 and angle PRQ= 46^0. Find the measure of angle TQR and measure of angle RTQ.