Unit 9: Chord and Arcs of a Circle

SSC-II Mathematics (Federal Board, National Book Foundation) | 36 MCQs

Choose the correct answer. The correct option is shown in **bold**. Each question carries one mark.

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1. A line segment joining any two points of a circle is called a

A. secant
B. tangent
C. chord
D. radius

2. The longest chord of a circle is its

A. secant
B. arc
C. radius
D. diameter

3. A chord that passes through the centre of a circle is called a

A. diameter
B. sector
C. arc
D. tangent

4. The perpendicular from the centre of a circle to a chord

A. is parallel to the chord
B. bisects the chord
C. is equal to the radius
D. is equal to the chord

5. The line joining the centre of a circle to the midpoint of a chord is

A. parallel to the chord
B. a tangent to the circle
C. equal to the chord
D. perpendicular to the chord

6. Equal chords of a circle are

A. unequal in distance from the centre
B. equidistant from the centre
C. diameters
D. parallel to each other

7. Chords of a circle that are equidistant from the centre are

A. diameters
B. unequal in length
C. equal in length
D. perpendicular

8. In a circle of radius 5 cm, a chord is 6 cm long. Its distance from the centre is

A. 4 cm
B. 3 cm
C. 2 cm
D. 8 cm

9. In a circle of radius 13 cm, a chord is 24 cm long. Its distance from the centre is

A. 12 cm
B. 10 cm
C. 7 cm
D. 5 cm

10. A chord of length 8 cm is at a distance of 3 cm from the centre of a circle. The radius is

A. 5 cm
B. 4 cm
C. 11 cm
D. $\sqrt{7}$ cm

11. A chord of length 16 cm is at a distance of 6 cm from the centre. The radius is

A. 8 cm
B. 14 cm
C. 10 cm
D. $\sqrt{28}$ cm

12. If two chords AB and CD of a circle are equal, then their distances from the centre are

A. double
B. equal
C. unequal
D. zero

13. If two chords of a circle are at unequal distances from the centre, the chord nearer to the centre is

A. equal
B. shorter
C. longer
D. a tangent

14. A quadrilateral whose all four vertices lie on a circle is called

A. a cyclic quadrilateral
B. a trapezium
C. a rhombus
D. a tangential quadrilateral

15. A line that meets a circle at two distinct points is called a

A. tangent
B. radius
C. diameter
D. secant

16. A chord divides a circle into two parts called

A. quadrants
B. segments
C. sectors
D. tangents

17. The region bounded by two radii and the arc between them is called a

A. chord
B. semicircle
C. sector
D. segment

18. Equal arcs of a circle subtend

A. unequal angles at the centre
B. no angle at the centre
C. right angles at the centre
D. equal angles at the centre

19. If two arcs of a circle subtend equal angles at the centre, then the corresponding chords are

A. equal
B. perpendicular
C. unequal
D. parallel

20. The perpendicular bisector of a chord of a circle passes through

A. no fixed point
B. the centre of the circle
C. the endpoint of the chord only
D. a point outside the circle

21. The number of circles that can pass through three non-collinear points is

A. none
B. infinitely many
C. two
D. exactly one

22. A chord of length 10 cm lies in a circle of radius 5 cm. Its distance from the centre is

A. 2.5 cm
B. 0 cm
C. 5 cm
D. 10 cm

23. In a circle of radius 10 cm, a chord is at a distance of 6 cm from the centre. The length of the chord is

A. 20 cm
B. 8 cm
C. 16 cm
D. 12 cm

24. In a circle of radius 13 cm, a chord is at a distance of 12 cm from the centre. The length of the chord is

A. 10 cm B. 5 cm
C. 2 cm D. 25 cm

25. The length of the longest chord of a circle of radius r is

A. r B. $r\sqrt{2}$
C. πr **D. 2r**

26. The perpendicular bisectors of two non-parallel chords of a circle meet at

A. the centre of the circle B. a point on the circle
C. a point outside the circle D. the midpoint of one chord

27. If the midpoint of a chord is M and the centre is O, then OM is

A. parallel to the chord B. equal to the chord
C. perpendicular to the chord D. equal to the radius

28. If AB is a chord of a circle with centre O and M is its midpoint, then angle OMA measures

A. 60° **B. 90°**
C. 180° D. 45°

29. A straight line drawn from the centre of a circle to bisect a chord (which is not a diameter) is

A. parallel to the chord B. equal to the chord
C. a tangent to the circle **D. perpendicular to the chord**

30. If two chords of a circle are congruent, then their corresponding minor arcs are

A. congruent B. parallel
C. perpendicular D. unequal

31. Equal chords of a circle subtend at the centre

A. unequal angles **B. equal angles**
C. supplementary angles D. right angles

32. If two chords of a circle subtend equal angles at the centre, then the chords are

A. perpendicular to each other B. unequal
C. equal D. parallel

33. A circle cannot be drawn through three points that are

A. collinear B. vertices of a triangle
C. vertices of a right triangle D. non-collinear

34. The centre of the circle passing through the three vertices of a triangle lies at the intersection of its

A. altitudes only B. medians
C. angle bisectors **D. perpendicular bisectors of the sides**

35. A chord subtends an angle of 60° at the centre of a circle of radius 7 cm. The length of the chord is

A. $7\sqrt{3}$ cm B. 3.5 cm
C. 7 cm D. 14 cm

36. A chord subtends an angle of 90° at the centre of a circle of radius 5 cm. The length of the chord is

A. 5√3 cm

B. 5√2 cm

C. 5 cm

D. 10 cm