

Section-A

Multiple Choice Questions (MCQ's)

Q.1 Choose the correct answer for each from the given options.

- (i) For two sets A and B, if $O(A) = O(B)$ then
 (a) $A = B$ (b) $B = A$ (c) $A \cap B$ (d) $A \cup B$
- (ii) $((A')) =$ _____
 (a) $(A)'$ (b) A' (c) A (d) B
- (iii) Which operation is not commutative
 (a) Symmetric difference (b) Union (c) Difference (d) Intersection
- (iv) Which one is subset of N
 (a) Z (b) Q (c) E (d) P
- (v) Tabular form of $A = \{x \mid x \in Z \wedge x = 25\}$ is
 (a) $\{1,5\}$ (b) $\{-5,5\}$ (c) $\{1,5,25\}$ (d) $\{-5\}$
- (vi) One and only one circle passes through three points.
 (a) collinear (b) non-collinear (c) disjoint (d) none of these
- (vii) The hypothesis of the enunciation "If two chords of a circle are congruent, then they are equidistant from the centre" is:
 (a) two chords of a circle are equidistant from the centre.
 (b) two chords of a circle are congruent.
 (c) a circle has two chords.
 (d) the centre of circle is equidistant from chords.
- (viii) The hypothesis of the enunciation "One and only one circle can pass through three non-collinear points" is:
 (a) three points are non-collinear.
 (b) one and only one circle passes through three points.
 (c) two circles pass through three points.
 (d) three points are collinear.
- (ix) The conclusion of the enunciation "One and only one circle can pass through three non-collinear points" is:
 (a) three points are non-collinear.
 (b) one and only one circle passes through three points.
 (c) two circles pass through three points.
 (d) three points are collinear.
- (x) A circle is an example of a curve.
 (a) simple and closed (b) simple and open
 (c) non-simple and closed (d) non-simple and open
- (xi) The conclusion of the enunciation "If two chords of a circle are congruent, then they are equidistant from the centre." is:
 (a) two chords of the circle are equidistant from the centre.
 (b) two chords of a circle are congruent.
 (c) a circle has two chords.
 (d) the centre of circle is equidistant from chords.
- (xii) In the adjacent figure, the point of tangency is
 (a) A (b) B (c) C (d) D
- (xiii) Tangents drawn at end points of a diameter of a circle are _____ to each other
 (a) parallel (b) perpendicular (c) intersecting (d) both (b) and (c)
- (xiv) The maximum number of common tangents between two circles touching internally _____ is
 (a) 0 (b) 1 (c) 2 (d) 3
- (xv) The maximum number of common tangents between two circles touching externally is
 (a) 0 (b) 1 (c) 2 (d) 3
- (xvi) If a point is outside the circle then from this point we can draw tangent(s) to the circle.
 (a) one (b) two (c) three (d) none
- (xvii) Angle between the radial segment and tangent at its outer end point is
 (a) 45° (b) 60° (c) 90° (d) 120°
- (xviii) In the adjacent figure, circles with centres E and C
 (a) touch internally (b) touch externally
 (c) do not touch (d) are congruent
- (xix) In the adjacent figure, circles with centres B and C have _____ point(s) of contact.
 (a) no (b) one (c) two (d) none of these
- (xx) In the adjacent figure, circles with centres E and C have point(s) of contact.
 (a) no (b) one (c) two (d) none of these
- (xxi) In the adjacent figure, AB is
 (a) tangent (b) secant (c) chord (d) none of these