EduSahara™ Learning Center Assignment

Grade : Class X, ICSE
Chapter : Chord Properties of a Circle
Name : Circle Basics

---

1. The mid-point of the diameter of a circle is called

(i) diameter (ii) centre (iii) segment (iv) semi-circle (v) chord

---

2. A line segment joining any point on the circle with its centre is called

(i) semi-circle (ii) centre (iii) segment (iv) diameter (v) radius

---

3. A line segment having its end points on the circle is called a

(i) segment (ii) circumference (iii) major segment (iv) chord (v) centre

---

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

(i) diameter (ii) segment (iii) circumference (iv) centre (v) semi-circle

---

5. A chord of a circle divides the whole circular region into two parts, each called a

(i) segment (ii) circumference (iii) semi-circle (iv) diameter (v) chord

---

6. The segment of the circle containing the centre of the circle is called

(i) major segment (ii) semi-circle (iii) circumference (iv) centre (v) radius

---

7. Half of a circle is called

(i) radius (ii) diameter (iii) centre (iv) major segment (v) semi-circle

---

8. The perimeter of a circle is called

(i) semi-circle (ii) circumference (iii) centre (iv) radius (v) diameter

---

9. Which of the following statements are true?

a) Each radius of a circle is also a chord of the circle
b) Every circle has a unique centre
c) A line can meet a circle atmost at two points
d) Every circle has a unique diameter
e) A circle consists of an infinite number of points

(i) {a,d,e} (ii) {b,c,e} (iii) {a,b,c} (iv) {d,c} (v) {a,b}

---

10. Which of the following statements are true?

a) An infinite number of chords may be drawn for a circle
b) Two semi-circles of a circle together make the whole circle
c) One and only one tangent can be drawn to a circle from a point outside it
d) Every circle has a unique diameter
e) An infinite number of diameters may be drawn for a circle

(i) {d,b} (ii) {a,b,e} (iii) {c,a,b} (iv) {c,d,e} (v) {c,a}

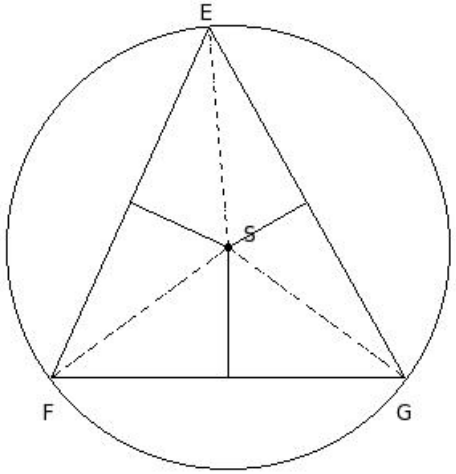
11. Which of the following statements are true?

a) Every circle has a unique diameter
b) One and only one tangent can be drawn to a circle from a point outside it
c) Diameter of a circle is a part of the semi-circle of the circle
d) A secant of a circle is a segment having its end points on the circle
e) One and only one tangent can be drawn to pass through a point on a circle

(i) {a,c} (ii) {b,e} (iii) {c,e} (iv) {b,e,c} (v) {d,a,c}

---

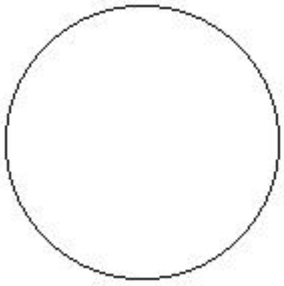
12. In the given triangle S is the circumcentre. If SE = 13.80 cm, find the circumference of the circumcircle



(i) 85.7 cm (ii) 87.7 cm (iii) 88.7 cm (iv) 86.7 cm (v) 84.7 cm

---

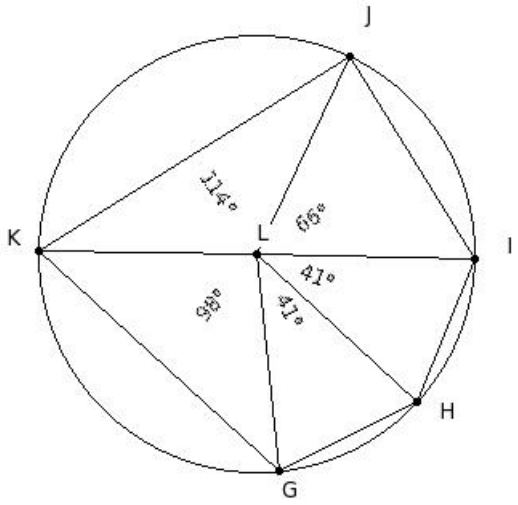
13. Identify the figure below



(i) circle (ii) triangle (iii) pentagon (iv) hexagon (v) decagon

---

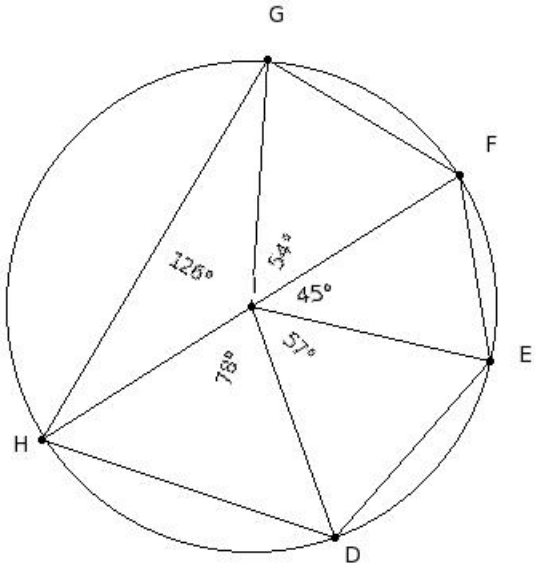
14. The centre of the circle is



(i) J (ii) I (iii) G (iv) L (v) H

---

15. The chords of the circle are



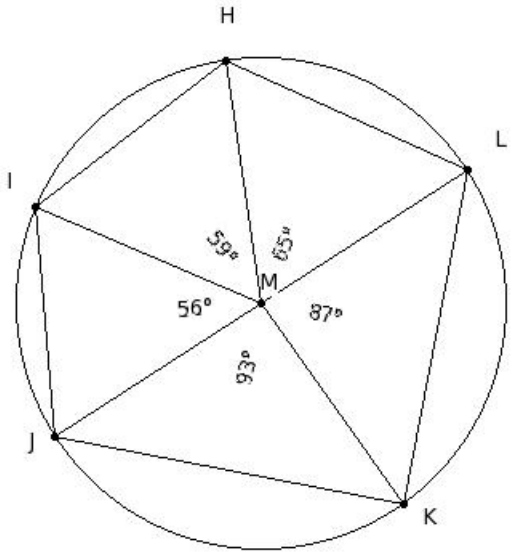
(i) $\overline{DE}$, $\overline{EF}$, $\overline{FG}$, $\overline{GH}$, $\overline{HD}$ (ii) $\overline{DE}$, $\overline{EF}$, $\overline{FG}$, $\overline{GH}$, $\overline{HD}$, $\overline{FH}$

(iii) $\overline{ID}$, $\overline{IE}$, $\overline{IF}$, $\overline{IG}$, $\overline{IH}$ (iv) $\overline{DE}$, $\overline{EF}$, $\overline{FG}$, $\overline{GH}$, $\overline{HD}$, $\overline{IF}$

(v) $\overline{EF}$, $\overline{FG}$, $\overline{GH}$, $\overline{HD}$

---

16. The diameters of the circle are



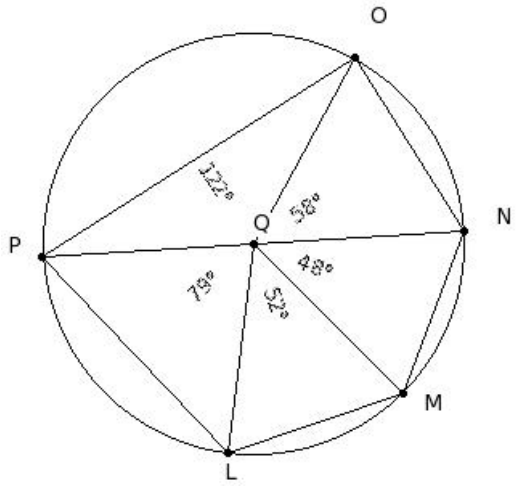
(i) $\overline{MH}$, $\overline{MI}$, $\overline{MJ}$, $\overline{MK}$, $\overline{ML}$ (ii) $\overline{JL}$

(iii) $\overline{HI}$, $\overline{IJ}$, $\overline{JK}$, $\overline{KL}$, $\overline{LH}$, $\overline{JL}$ (iv) $\overline{MH}$, $\overline{MI}$, $\overline{MJ}$, $\overline{MK}$, $\overline{ML}$, $\overline{JL}$

(v) $\overline{HI}$, $\overline{IJ}$, $\overline{JK}$, $\overline{KL}$, $\overline{LH}$

---

17. The radii of the circle are



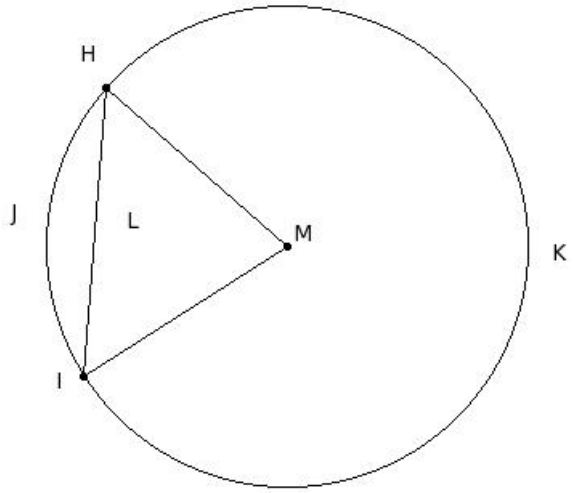
(i) $\overline{QL}$, $\overline{QM}$, $\overline{QN}$, $\overline{QO}$, $\overline{QP}$ (ii) $\overline{MN}$, $\overline{NO}$, $\overline{OP}$, $\overline{PL}$

(iii) $\overline{LM}$, $\overline{MN}$, $\overline{NO}$, $\overline{OP}$, $\overline{PL}$, $\overline{NP}$ (iv) $\overline{LM}$, $\overline{MN}$, $\overline{NO}$, $\overline{OP}$, $\overline{PL}$

(v) $\overline{LM}$, $\overline{MN}$, $\overline{NO}$, $\overline{OP}$, $\overline{PL}$, $\overline{QL}$

---

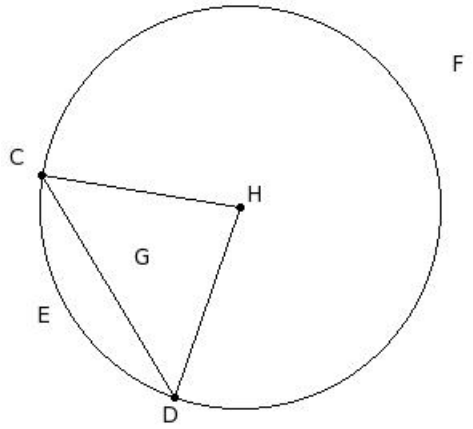
18. The minor sector of the circle is



(i) MHKIM (ii) MHJIM (iii) HJI (iv) HKI (v) HJILH

---

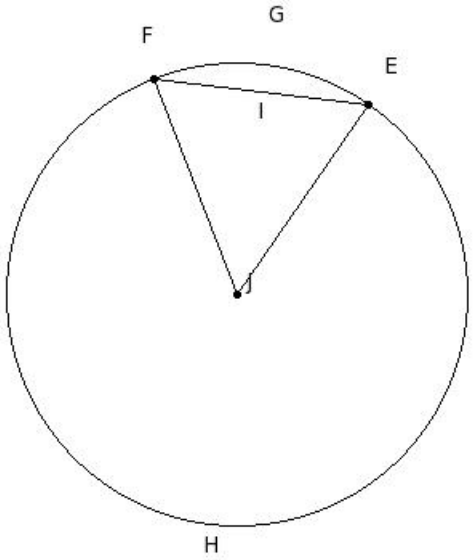
19. The major sector of the circle is



(i) CFDGC (ii) CEDGC (iii) CED (iv) HCEDH (v) HCFDH

---

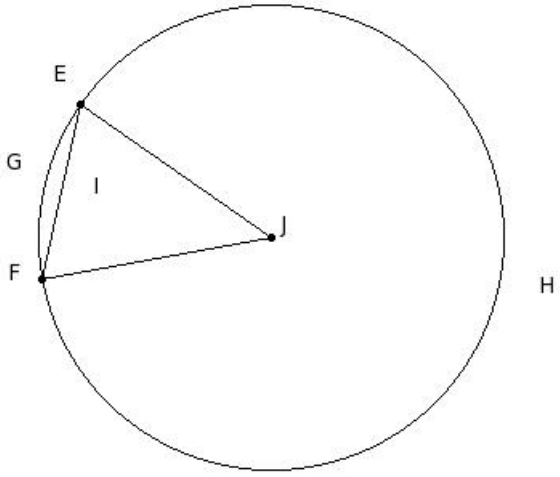
20. The minor arc of the circle is



(i) JEGFJ (ii) EGF (iii) EHF (iv) JEHFJ (v) EHFIE

---

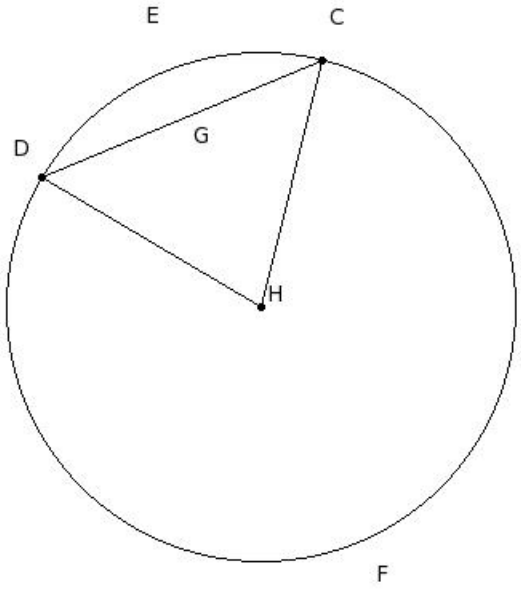
21. The major arc of the circle is



(i) EHFIE (ii) EGFIE (iii) EGF (iv) EHF (v) JEGFJ

---

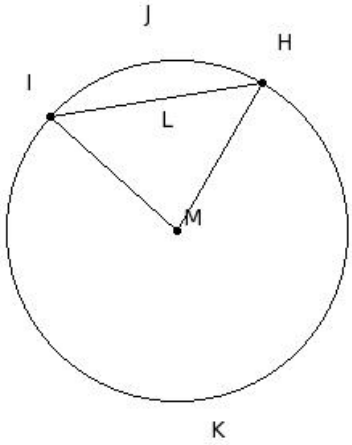
22. The minor segment of the circle is



(i) HCEDH (ii) CFD (iii) CEDGC (iv) CED (v) CFDGC

---

23. The major segment of the circle is



(i) HJILH (ii) HJI (iii) HKI (iv) HKILH (v) MHKIM

---

24. The distance around the circle is called

(i) circumference (ii) radius (iii) diameter (iv) chord (v) arc

---

25. A line which intersects the circle at two distinct points is called a

(i) secant (ii) chord (iii) tangent (iv) segment (v) radius

---

26. A line which touches a circle at only one point is called a

(i) quadrant (ii) centre (iii) chord (iv) tangent (v) secant

---

27. If the two radii OP and OQ of a circle are at right angles to each other, then the sector OPQ is called a

(i) major segment (ii) quadrant (iii) secant (iv) diameter (v) radius

---

28. Which of the following statements are true?

a) The diameter is the longest chord
b) A chord divides a circle into two segments
c) The radius is the shortest chord

d) A chord divides a circle into two sectors
e) Atmost one chord can be drawn on a circle with a certain length

(i) {c,a} (ii) {e,c,a} (iii) {a,b} (iv) {d,b,a} (v) {d,b}

---

29. Which of the following statements are true?

a) Equal length chords are equidistant from the centre of the circle
b) Equal length chords subtend equal angles at the centre of the circle
c) The longest chord of the circle passes through the centre of the circle
d) No two chords bisects each other
e) The farther the chord is from the centre, the larger the angle it subtends at the centre

(i) {d,a,b} (ii) {a,b,c} (iii) {d,e,c} (iv) {e,b} (v) {d,a}

---

30. Which of the following statements are true?

a) The diameter divides the circle into two unequal parts
b) The area enclosed by a chord and its major arc is called major segment
c) The area enclosed by a chord and its minor arc is called minor segment
d) A circle divides the plane on which it lies into three parts
e) A sector is the area enclosed by two radii and a chord

(i) {a,b,c} (ii) {b,c,d} (iii) {a,b} (iv) {e,c} (v) {a,e,d}

---

31. Which of the following statements are true?

a) The diameter divides the circle into two unequal parts
b) The midpoint of any diameter of a circle is its centre
c) A sector is the area enclosed by two radii and a chord
d) Two chords bisect each other
e) The longest of all chords of a circle is called diameter

(i) {d,a,b} (ii) {c,e,b} (iii) {c,e} (iv) {a,b} (v) {b,e}

---

32. Which of the following statements are true?

a) If a parallelogram is cyclic, it is a rectangle
b) If a rhombus is cyclic, it is a square
c) If a trapezium is cyclic, it is a rectangle
d) If a kite is cyclic, it is a square
e) A cyclic quadrilateral is a regular polygon

(i) {c,a} (ii) {d,b,a} (iii) {a,b} (iv) {e,c,a} (v) {d,b}

---

33. Which of the following statements are true?

a) Atmost one circle can be drawn passing through three non-collinear points
b) Infinite circles can be drawn passing through three collinear points
c) Exactly two tangents can be drawn parallel to a secant
d) Only one circle can be drawn with a centre
e) Only one circle can be drawn passing through two points

(i) {d,c} (ii) {e,b,a} (iii) {d,c,a} (iv) {b,a} (v) {a,c}

---

34. Which of the following statements are true?

a) A radius is a limiting case of a diameter
b) A secant has two end points

c) A tangent is the limiting case of a secant
d) A secant and a chord are same
e) A diameter is a limiting case of a chord

(i) {b,e} (ii) {b,e,c} (iii) {a,c} (iv) {d,a,c} (v) {c,e}

---

35. The point of intersection of the angular bisectors of a triangle is

(i) incentre (ii) centroid (iii) circumcentre (iv) excentre (v) orthocentre

---

36. BC , DE , FG , HI are chords of a circle with BC = 5 cm , DE = 3 cm , FG = 6.4 cm and HI = 6.08 cm. The chord farthest from the centre of the circle is

(i) HI = 6.08 cm (ii) DE = 3 cm (iii) FG = 6.4 cm (iv) BC = 5 cm

---

37. Circles having common centre are called

(i) congruent circles
(ii) similar circles
(iii) concentric circles
(iv) intersecting circles

---

38. If two circles are concentric, then

(i) their radii are same
(ii) their diameters are same
(iii) their centres are same
(iv) their perimeters are same

---

39. Which of the following figures represent a chord ?

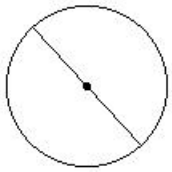


fig I

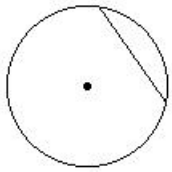


fig II

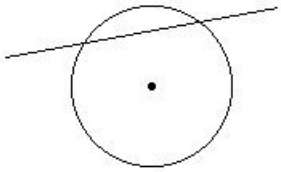


fig III

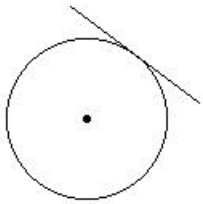


fig IV

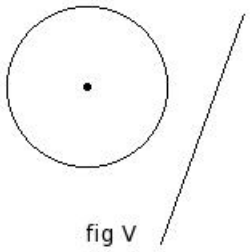


fig V

(i) fig II (ii) fig III (iii) fig IV (iv) fig I (v) fig V

---

40. Which of the following figures represent a diameter ?

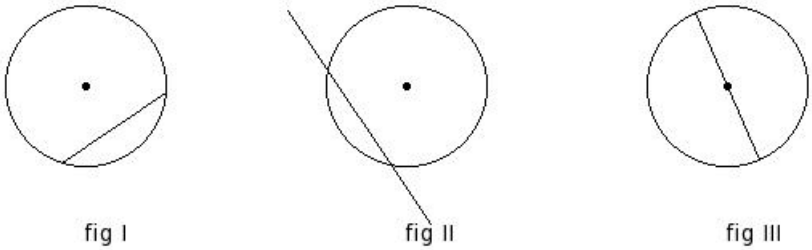


fig I fig II fig III

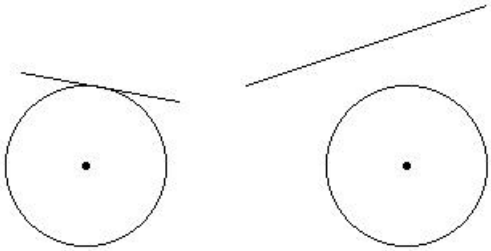


fig IV fig V

(i) fig III (ii) fig I (iii) fig II (iv) fig IV (v) fig V

---

41. Which of the following figures represent a secant ?

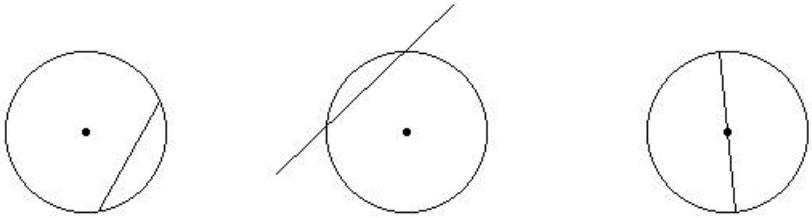


fig I fig II fig III

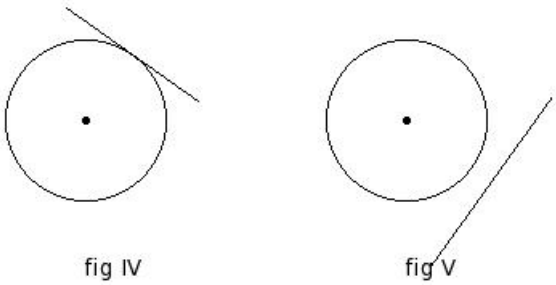
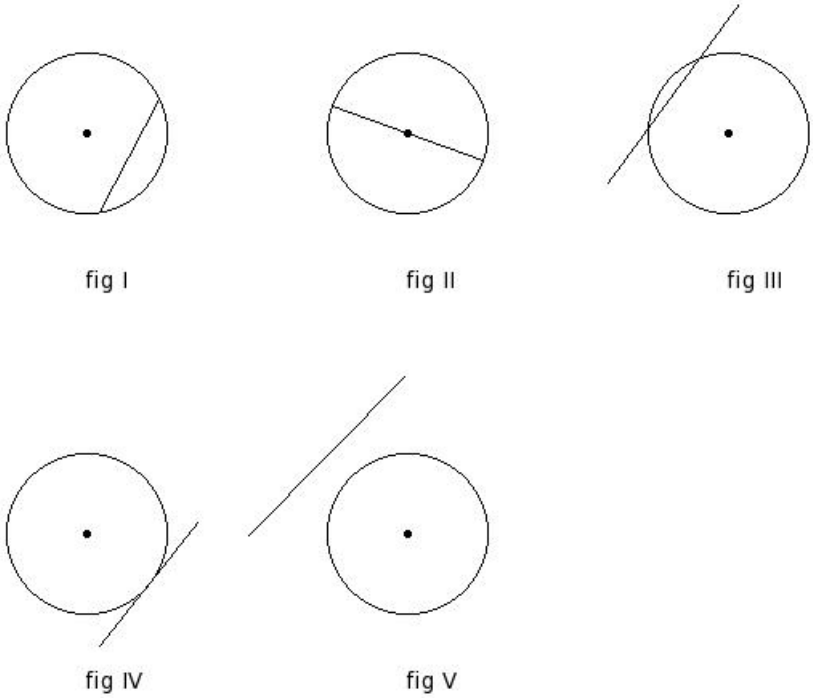


fig IV fig V

(i) fig II (ii) fig IV (iii) fig V (iv) fig I (v) fig III

---

42. Which of the following figures represent a tangent ?



(i) fig V (ii) fig IV (iii) fig I (iv) fig II (v) fig III

---

43. Which of the following statements are true?

a) π is a rational number

b) $\frac{22}{7}$ is a rational number

c) A circle divides the plane into three mutually disjoint sets of points

d) All diameters of a circle are chords

e) All chords of a circle are diameters

(i) {a,b,c} (ii) {a,b} (iii) {b,c,d} (iv) {a,e,d} (v) {e,c}

---

44. Points which lie on the circumference of the circle are called

(i) Similar points

(ii) Concurrent points

(iii) Coincident points

(iv) Cyclic points

(v) Concyclic points

---

45. The angle subtended by the semicircle at the centre is

(i) 190° (ii) 180° (iii) 195° (iv) 185° (v) 210°

---

46. The angle subtended by the diameter at any point on the circle is

(i) 120° (ii) 90° (iii) 100° (iv) 95° (v) 105°

---

47. If the radius of the circumcircle is half the length of a side of the triangle, then the triangle is

(i) acute angled triangle

(ii) equilateral triangle

(iii) right angle triangle

(iv) obtuse angled triangle

48. Which of the following statements are true?

a) Angle subtended by the major arc in its alternate segment is obtuse
b) Angle subtended by the major arc at the centre is acute
c) If two chords are equal, then they are equidistant from the centre of the circle
d) Angle subtended in the major segment is obtuse
e) The angle subtended in a semicircle is a right angle

(i) {b,a,c} (ii) {a,c,e} (iii) {d,c} (iv) {b,a} (v) {b,d,e}

---

49. In triangle CDE, if a circle is drawn with DE as diameter and if it passes through C it is a

(i) equilateral triangle
(ii) right angle triangle
(iii) acute angled triangle
(iv) obtuse angled triangle

Assignment Key

1) (ii)
2) (v)
3) (iv)
4) (i)
5) (i)
6) (i)
7) (v)
8) (ii)
9) (ii)
10) (ii)
11) (iii)
12) (iv)
13) (i)
14) (iv)
15) (i)
16) (ii)
17) (i)
18) (ii)
19) (v)
20) (ii)
21) (iv)
22) (iii)
23) (iv)
24) (i)
25) (i)
26) (iv)
27) (ii)
28) (iii)
29) (ii)
30) (ii)
31) (v)
32) (iii)
33) (v)
34) (v)
35) (i)
36) (ii)
37) (iii)
38) (iii)
39) (i)
40) (i)
41) (i)
42) (ii)
43) (iii)
44) (v)
45) (ii)
46) (ii)
47) (iii)
48) (ii)
49) (ii)