

**Chapter: 6**

**Q.1 Choose the correct alternative. (3)**

- 1) Radius of a circle is 10 cm and distance of a chord from the centre is 6 cm. Hence the length of the chord is .....,  
a. 16 cm      b. 8 cm      c. 12 cm      d. 32 cm
- 2) A chord of length 14 cm is at a distance of 6 cm from the center of a circle. The length of another chord at a distance of 2 cm from the center of the circle is  
a. 12 cm      b. 14 cm      c. 16 cm      d. 18 cm
- 3) Circles having the same centre and different radii are called ..... circles.  
a. Congruent circles      b. Concentric circles  
c. Both a and b      d. None of there

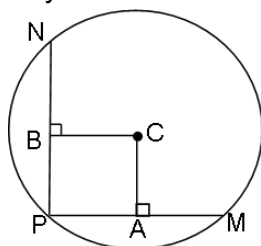
**Q.2 Solve the following questions. (Any three) (9)**

- 1) Radius of a circle is 5 cm. The length of a chord of the circle is 8 cm. Find the distance of the chord from the centre.
- 2) The radius of the circle is 20cm and the length of two parallel equal chords are 32cm each, Find the distance between the two chords.
- 3) Distance of chord AB from the centre of a circle is 8 cm. Length of the chord AB is 12 cm. Find the diameter of the circle.
- 4) Seg PM and seg PN are congruent chords of a circle with centre C. Show that the ray PC is the bisector of  $\angle NPM$ .

Given:- (1) A circle with centre 'C'

(2) chord  $PM \cong$  chord  $PN$

To prove: Ray PC bisects  $\angle NPM$



**Q.3 Solve the following questions. (Any two) (8)**

- 1) In a circle with radius 13 cm, two equal chords are at a distance of 5 cm from the centre. Find the lengths of the chords.

2)

Construct incircle and circumcircle of an equilateral  $\triangle DSP$  with side 7.5 cm. Measure the radii of both the circles and find the ratio of radius of circumcircle to the radius of incircle.

3)

Construct a  $\triangle ABC$  with  $BC = 6.5$  cm,  $AB = 5.5$  cm,  $AC = 5$ . Construct the incircle of the triangle.

