



**Assignment**

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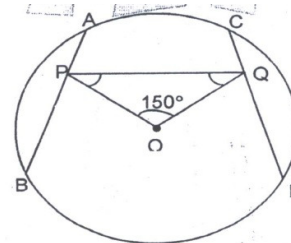
Date: \_\_ / \_\_ / \_\_

Name: \_\_\_\_\_

Max Marks: 20

Section- A (One Marks Each)

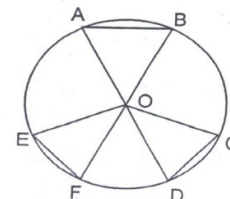
- 1 AB and CD are the chords of a circle with centre O, such that  $AB=CD$ . If  $\angle AOB = 30^\circ$ . What is the measure of  $\angle COD$ ?
- 2 In the given figure,  $AB = CD$  and  $\angle POQ = 150^\circ$ . If OP and OQ are perpendiculars on chords AB and CD, respectively, find the measured of  $\angle APQ$ .



- 3  $C_1$  and  $C_2$  are two circles with common centre O. AB is a chord of circle  $C_1$  and PQ is a chord of circle  $C_2$ . If  $AB = 4\text{cm}$  and  $PQ = 6\text{cm}$ , what is the length of AP?

Section-B (Two Marks Each)

- 4 Two chords PQ and RS are parallel to each other. AB is the perpendicular bisector of RS. Show that AB bisects PQ.
- 5 O is the center of the circle of radius 5 cm. if  $OM = 4\text{cm}$  is perpendicular to PN, find the length of PN.
- 6 Prove that equal chords of a circle subtend equal angles at the centre of the circle.
- 7 In the given figure, if O is the centre of the circle.  $\angle AOB = \angle EOF = \angle COD = 60^\circ$  and  $AB = 4\text{units}$ . Find



Section-C (Three Marks Each)

- 8 A circular park of radius 20 m is situated in a colony. Three boys Ram, Mohan and Sham are sitting at equal distance on its boundary, each having a toy telephone in his hands to talk to each other, find the length of the string of each phone?
- 9 Two circles of radii 10 cm and 17 cm intersect at two points and the distance between their centers is 21 cm. find the length of the common chord.
- 10 If two intersecting chords of a circle make equal angles with the diameter passing through their points of intersection, prove that the chords are equal.