BCM SCHOOL, BASANT AVENUE, DUGRI, LUDHIANA.

DECEMBER ASSIGNEMENT(2025-26)

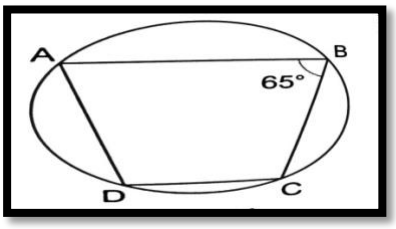
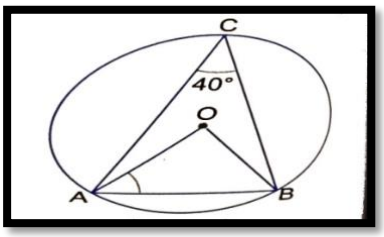
CLASS- IX (MATHEMATICS)

TOPIC:CIRCLES

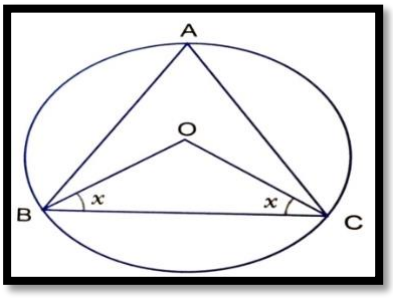
SECTION –A (MULTIPLE CHOICE QUESTIONS)

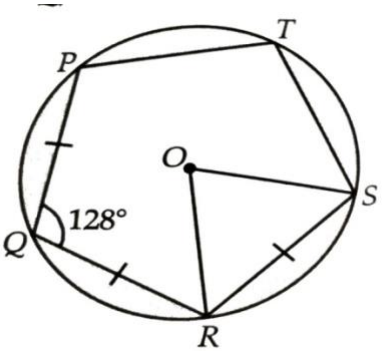
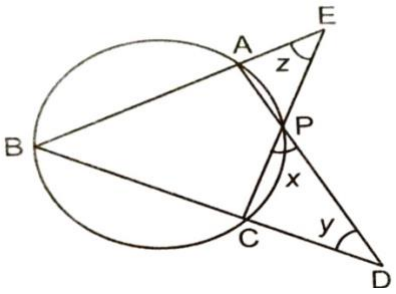
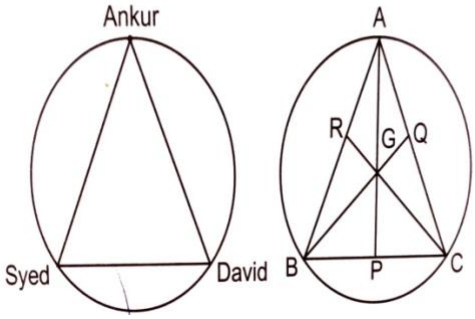
1.	The chord of a circle is equal to its radius. The angle subtended by this chord at the minor arc of the circle is (a) 60° (b) 75° (c) 120° (d) 150°
2.	If a circle is divided into eight equal parts, the angle subtended by each arc at the centre is equal to (a) 90° (b) 60° (c) 45° (d) 30°
3.	Assertion (A) : The length of a chord which is at a distance of 5 cm from the centre of a circle of radius 10 cm is 17.32 cm. Reason (R): The perpendicular from the centre of a circle to a chord bisects the chord. (a) Both Assertion (A) and Reason (R) are the true and Reason (R) is a correct explanation of Assertion (A). (b) Both Assertion (A) and Reason (R) are the true but Reason (R) is not the correct explanation of Assertion (A). (c) Assertion (A) is true but Reason (R) is false. (d) Assertion (A) is false and Reason (R) is true.

SECTION – B(2 MARKS QUESTIONS)

4.	ABCD is a cyclic quadrilateral in which AB || CD. If ∠ B = 65°, then find other angles. 
5.	In the given figure, ∠ACB = 40°. Find ∠ OAB. 

SECTION – C (3 MARKS QUESTIONS)

6.	The circumcentre of the ∆ABC is O. Prove that ∠ OBC + ∠ BAC = 90° 

7.	In the given figure, PQ = QR = RS and ∠ PQR = 128°. Find ∠PTQ, ∠PTS and ∠ROS 
SECTION – D (5 MARKS QUESTIONS)	
8.	Prove that the quadrilateral formed (if possible) by the internal bisectors of any quadrilateral is cyclic.
9.	In the given figure, if y = 32° and z = 40°, determine x. If y + z = 90°, prove that x = 45°. 
SECTION – E (4 MARK QUESTIONS)	
10.	A circular park of radius 20 m is situated in a colony. Three boys Ankur, Syed and David are sitting at equal distance on its boundry each having a toy telephone in hand to talk to each other as shown in the given figure. AP, BQ and CR are the medians of ∆ABC.  Now answer the following questions : (a) What is the length of AG? (b) What is the length of AP? (c) Find the measure of ∠ BGC and ∠ ABQ. (d) Find length AB.