

BCM SCHOOL, BASANT AVENUE DUGRI, LUDHIANA

CLASS IX

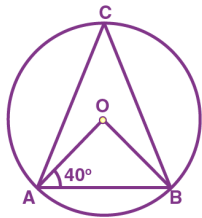
SUBJECT: MATHEMATICS

ASSIGNMENT - CIRCLES

Q1 The distance of the chord of length 16 cm from the center of the circle of diameter 20 cm is

- a) 3cm    b) 6cm    c) 5cm    d) 4cm

Q2 In the given figure, if  $\angle OAB = 40^\circ$ , then  $\angle ACB$  is equal to



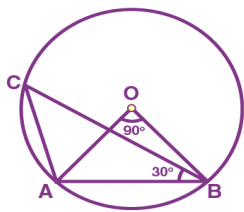
- a)  $40^\circ$     b)  $50^\circ$     c)  $60^\circ$     d)  $70^\circ$

Q3 Assertion:- The angle made by diameter of a circle on circumference is an obtuse angle.

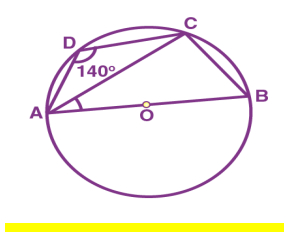
Reason:- Angle in a semi-circle is a right angle.

- a) Both Assertion and reason are correct and reason is correct explanation for Assertion.  
b) Both Assertion and reason are correct but reason is not correct explanation for Assertion.  
c) Assertion is true but reason is false.  
d) Assertion is false but reason is true.

Q4 In the given figure,  $\angle AOB = 90^\circ$  and  $\angle ABC = 30^\circ$ , then  $\angle CAO$  is equal to:

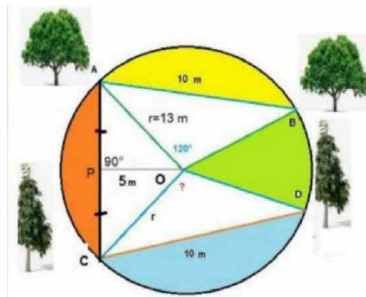


Q5 ABCD is a cyclic quadrilateral such that AB is a diameter of the circle circumscribing it and  $\angle ADC = 140^\circ$ , then find  $\angle BAC$



Q6 Two chords AB and CD of lengths 5 cm and 11 cm respectively of a circle are parallel to each other and are on opposite sides of its centre. If the distance between AB and CD is 6 cm, find the radius of the circle.

Q7. A farmer has a circular garden as shown in the picture above . He has a different type of tree ,plants and flower plants in his garden. In the garden, there are two mango trees A and B at a distance of  $AB=10\text{m}$ . Similarly has two Ashok trees at the same distance of 10m as shown at C and D AB subtends  $\angle AOB=120^\circ$  at the center O, The perpendicular distance of AC from center is 5m the radius of the circle is 13m.



NOW ANSWER THE FOLLOWING QUESTIONS.

- 1) What is the value of  $\angle COD$  ?
- 2) What is the distance between mango tree A and Ashok tree C ?
- 3) What is the value of angle  $\angle OCD$  ?

