

CHOITHRAM SCHOOL MANIKBAGH INDORE

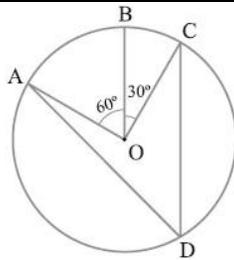
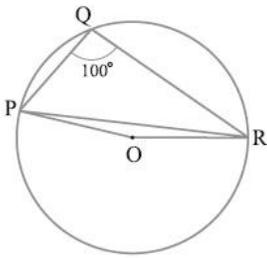
CLASS: IX Session: 2018-19

Subject: Mathematics

Allotment Date: 25/01/2019

Assignment No: 4

Submission Date: 30 /01/2019

S.No	QUESTION	MARKS	LEVEL
OBJECTIVE TYPE			
1	In given figure, A,B and C are three points on a circle with centre O such that $\angle BOC = 30^\circ$ and $\angle AOB = 60^\circ$. If D is a point on the circle other than the arc ABC, find $\angle ADC$	1	Knowledge
			
2	An isosceles triangle has perimeter 30 cm and each of the equal sides is 12 cm. find the length of third side	1	Understanding
3	In given figure, $\angle PQR = 100^\circ$, where P, Q and R are points on a circle with centre O. Find $\angle POR$.	1	H.O.T.S.
			
SHORT ANSWER TYPE I			
4	If diagonals of a cyclic quadrilateral are diameters of the circle through the vertices of the quadrilateral, prove that it is a rectangle.	2	Knowledge
5	Prove that if chords of congruent circles subtend equal angles at their centres, then the chords are equal.	2	Understanding
6	A chord of a circle is equal to the radius of the circle. Find the angle subtended by the chord at a point on the minor arc	2	Logic
7	A traffic signal board, indicating 'HOSPITAL AHEAD', is an equilateral triangle with side 'a'. Find the area of the signal board, using Heron's formula.	2	H.O.T.S.
SHORT ANSWER TYPE II			
8	If two equal chords of a circle intersect within the circle, prove that the line joining the point of intersection to the centre makes equal angles with the chords.	3	Understanding
9	A triangle and a parallelogram have the same base and the same area. If the sides of the triangle are 26 cm, 28 cm and 30 cm, and the parallelogram stands on the base 28 cm, find the height of the parallelogram.	3	Multi-Conceptual
10	Prove that a cyclic parallelogram is a rectangle.	3	
11	Prove that the quadrilateral formed (if possible) by the internal angle bisectors of any quadrilateral is cyclic.	5	H.O.T.S.
12	A field is in the shape of a trapezium whose parallel sides are 25 m and 10 m. The non-parallel sides are 14 m and 13 m. Find the area of the field.	5	Logic