O. P. JINDAL SCHOOL, SAVITRI NAGAR

Periodic Test-II (Round –II) 2025 – 2026

Class: IX MM: 20

Subject: Mathematics Time: 1Hrs.

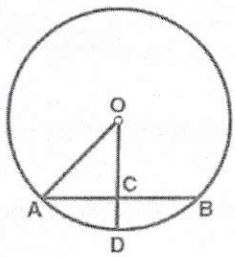
General Instructions:

1. *All questions are compulsory.*
2. *The question paper consists of 13 questions divided in three sections A, B and C.*
3. *Section A contains 8 questions of 1 mark each. Section B contains 3 questions of 2 marks each. Section C contains 2 questions of 3 marks each.*
4. *There is no overall choice. However an internal choice has been provided. You have to attempt only one of the alternatives in all questions.*
5. *Use of calculator is not permitted.*

Section A

Choose the correct answer:

Q1. In the given figure, if OA = 5 cm, AB = 8 cm and OD is perpendicular to AB, then CD is equal to:



a) 2 cm b) 3 cm c) 4 cm d) 5 cm

Q2. If chords AB and CD of congruent circles subtend equal angles at their centres, then

a) AB = CD b) AB > CD c) AB < CD d) None of these

Q3. Area of a right angle triangle is 62 cm^2 and its base is 4 cm then find its height.

a) 4 cm b) 15.5 cm c) 31 cm d) None of these

Q4. In a triangle ABC, AB = AC and BC = 8 cm, if perimeter of this triangle is 20 cm then its area is:

a) 8 cm^2 b) $4\sqrt{5}$ cm^2 c) $8\sqrt{5}$ cm^2 d) None of these

Q5. The base of a right triangle is 8 cm and the hypotenuse is 10 cm. Its area will be

a) 24 cm^2 b) 40 cm^2 c) 48 cm^2 d) 80 cm^2

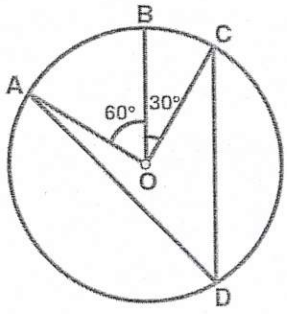
Q6. If the area of an equilateral triangle is $\sqrt{1875}$ cm^2, then its side is:

a) 25 cm b) 5 cm c) 10 cm d) 12 cm

Q7. The angle subtended by the diameter of a semi-circle is:

a) 90° b) 180° c) 45° d) 60°

Q8. In the below figure, the value of ∠ADC is:



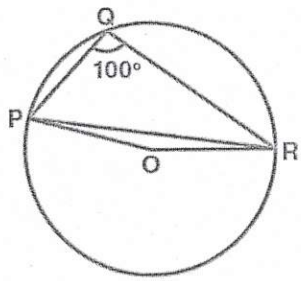
a)60° b) 30° c) 45° d) 55°

Section B

Answer the following questions:

Q9. Find the area of a triangle whose two sides are 18 cm and 10 cm and the perimeter is 42cm.

Q10. In Figure, ∠PQR = 100°, where P, Q and R are points on a circle with centre O. Find ∠OPR.



Q11. If two circles intersect at two points, prove that their centres lie on the perpendicular bisector of the common chord.

OR

Prove that if chords of congruent circles subtend equal angles at their centres, then the chords are equal.

Section C

Q12. A circular park of radius 20m is situated in a colony. Three boys Ankur, Syed and David are sitting at equal distance on its boundary each having a toy telephone in his hands to talk each other. Find the length of the string of each phone.

OR

If two equal chords of a circle intersect within the circle, prove that the segments of one chord are equal to corresponding segments of the other chord.

Q13. Find the cost of laying grass in a triangular field of sides 50 m, 65 m and 65 m at the rate of ₹7 per m^2.

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