



Class 10 (Syllabus)

There will be 45 multiple choice questions from the below mentioned syllabus.
The time duration will be 1 hour.

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|--------------------------------------|---------------------------------|
| 1. Real Numbers | 2. Polynomials |
| 3. Linear Equations in Two Variables | 4. Quadratic Equations |
| 5. Arithmetic Progression | 6. Triangles |
| 7. Coordinate Geometry | 8. Introduction to Trigonometry |
| 9. Some Applications of Trigonometry | 10. Circles |
| 11. Constructions | 12. Area Related to Circles |
| 13. Surface Areas and Volumes | 14. Statistics |

Sample Paper

- When Vaishali divides a number Z by 5 her answer is $6Rb$, and when she divides Z by b , her answer becomes $3R0$. Find the number Z .
A. 28 B. 35 C. 33 D. 30
- Find the point where the graph intersects x-axis for the quadratic equation,
 $x^2 - 2x - 8 = 0$
A. (4,1) and (-2,0) B. (4,0) and (-2,0)
C. (4,4) and (-2,0) D. (4,0) and (-2,2)
- Rohan can row downstream 20km in 2 hours, and upstream 4km in 2 hours. His speed of rowing in still water and the speed of the current is:

- A. 4 km/h and 7 km/h B. 6 km/h and 4 km/h
 C. 5 km/h and 4 km/h D. 6 km/h and 7 km/h

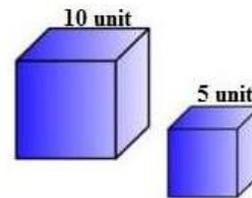
4. The base of the right triangle is 2cm more than its altitude. If the longest side of the triangle is 10cm, find the other two sides?

- A. 6cm, 8cm B. 7cm, 9cm
 C. 5cm, 13cm D. None of these

5. Find the twenty-third term of the A.P 31,25,19,13.....

- A. 127 B. 135 C. 159 D. - 101

6. These are two cubes with given edges. What is the ratio of total surface area of smaller cube to bigger cube?



- A. 4:1 B. 1:4
 C. 1:2 D. 2:3

7. What type of triangle is formed from the points (1,-3), (2,3) and (-2,0)?

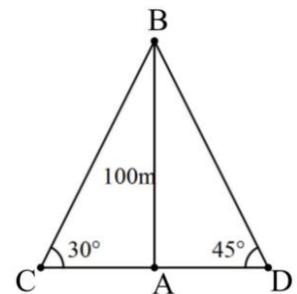
- A. right angled triangle B. isosceles triangle
 C. equilateral triangle D. scalene triangle

8. If a pole 6m high casts a shadow $2\sqrt{3}$ m long on the ground, then the sun's elevation is

- A. 30° B. 40° C. 90° D. 60°

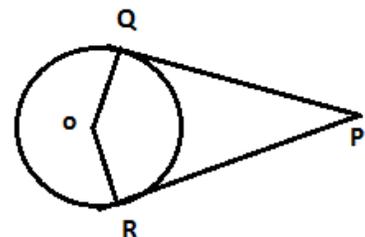
9. Two boats C and D are on opposite sides of a pole AB. What is the distance between the boats in the corresponding picture?

- A. $100(1+\sqrt{3})$ m B. $100(1-\sqrt{3})$ m
 C. $100(2+\sqrt{3})$ m D. $50(1+\sqrt{3})$ m

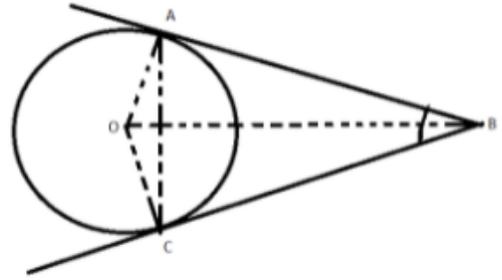


10. If PQ and PR are the two tangents to a circle with center O so that $\angle QOR=120^\circ$ then Find $\angle QPR$.

- A. 60° B. 30°
 C. 90° D. None of these



11. In the above figure, $\angle OCA = 20^\circ$. CB and AB are the tangents of the circle. Find out $\angle CBA$.
- A. $\angle 80^\circ$ B. $\angle 40^\circ$
 C. $\angle 30^\circ$ D. $\angle 50^\circ$



12. Find the area of the figure if length of straight line is 78.96m.

- A. 4898.84m^2
 B. 4898.67m^2
 C. 4898.6784^2
 D. 4898.6784m^2



13. Calculate the volume of a water cylinder with a total height of 1m, the diameter of 40cm, and whose top section is semi-spherical.

- A. $117,286.12\text{cm}^3$ B. $117,290\text{cm}^3$
 C. $118,000\text{cm}^3$ D. $119,086\text{cm}^3$

14. The mean of 10 numbers is 16. If a number is excluded then their mean becomes 15. The number excluded is:

- A. 30 B. 35 C. 20 D. 25