



DAV BORL PUBLIC SCHOOL, BINA

Class -VIII Subject - MATHS.

Practice Paper for SA-II (2015-2016)

General Instructions :

1. The question paper consists of four sections – A, B, C and D. Section – A consists of 8 questions of 1 mark each; Section –B consists of 6 questions of 2 marks each; Section-C consists of 10 questions of 3 marks each and Section –D consists of 10 questions of 4 marks each. Question No 1 to 8 are multiple Choice Questions where you are to select only one correct option out of four given options.
2. All questions are compulsory.
3. In questions on construction, the drawing should be neat and

SECTION – A

(Question number 1 to 8 carries 1 mark each)

1. The value of $[6^2 + 8^2]^{1/2}$ is-
(a) 10 (b) 71 (c) 225 (d) 64
2. The compound interest is always (except first year)-
(a) Less than S.I. (b) Greater than S.I. (c) Same (d) None of these
3. The degree of a polynomial $x^2 + 5$ is-
(a) 1 (b) 2 (c) 0 (d) 3
4. The degree of the polynomial $x(x + 1)$ is
(a) 1 (b) 2 (c) 0 (d) None of these
5. Sum of the measures of the exterior angles of any polygon is-
(a) 180° (b) 360° (c) 540° (d) 270°
6. The lateral surface area of a cuboid is-
(a) $2(l + b)$ (b) $2(lb + bh + lh)$ (c) $6l^2$ (d) $4l^2$
7. The angle of rotation of a square is-
(a) 180° (b) 90° (c) 360° (d) 270°

8. The order of rotation of a regular Hexagon is-
(a) 4 (b) 5 (c) 6 (d) 7

SECTION – B

(Question numbers 9 to 14 carry 2 marks each.)

9. Evaluate:- $27^{1/3} \times 16^{-1/4}$
10. Evaluate:- $(0.04)^{3/2}$
11. $\frac{p+7}{p-6} = \frac{1}{3}$

OR

The present ages of A and B are in the ratio 7 : 5. Ten years later, their ages will be in the ratio 9 : 7. Find their present ages.

12. One of the angles of a parallelogram is 75° . Find the measures of the remaining angles of the parallelogram.
13. Find the volume and total surface area of a cube whose edge is 5 cm.
14. Write the order of rotation and angle of rotation of the following
(a) Square (b) Equilateral triangle

SECTION – C

(Question numbers 15 to 24 carry 3 marks each.)

15. Find the value of x if $7^x = 343$
16. Find the compound interest on Rs 25,000 at the rate of 12% per annum for 3 years.
17. At what rate percent will a sum of Rs 64,000 be compounded to Rs 68,921 in 3 years.
18. Divide $y^2 + 12y + 35$ by $y + 7$.

OR

Divide $12x^3 - 2x^2 + x + 1$ by $3x + 1$ and write remainder.

19. Divide $x^3 - 3x^2 + 3x - 1$ by $x - 1$ by long division method.
20. The sum of three consecutive multiples of 7 is 777. Find these multiples.
21. Find the positive value of x for which the given equation is satisfied.
 $\frac{1-x^2}{1+x^2} = \frac{-4}{5}$
22. Two adjacent sides of a parallelogram are in the ratio 3 : 8 and its perimeter is 110 cm. Find the sides of the parallelogram.
23. Find the area of a trapezium whose parallel sides are 57 cm and 33 cm and the distance between them is 13 cm.
24. Construct a quadrilateral ABCD in which AB = BC = 5 cm, CD = 6 cm, diagonals are 7 cm each.

SECTION – D

(Question numbers 25 to 34 carry 4 marks each.)

25. Solve the exponential equation $2^{2x+1} = 4^{2x-1}$
26. Find the compound interest on Rs 11,200 at $17\frac{1}{2}\%$ per annum for 2 years.

27. In how many years will Rs 8,000 amount to Rs 9,261 at 5% per annum compounded annually.
28. Divide $4x^3 - 37x^2 + 52x - 5$ by $4x - 5$ and verify your answer.

29. The denominator of a rational number is greater than its numerator by 7. If 3 is subtracted from the numerator and 2 is added to its denominator, the new number becomes $\frac{1}{5}$. Find the rational number.
30. ABCD is a rhombus whose diagonals intersect at O. Show that $\triangle AOB \cong \triangle COD$
31. The diagonals of a rhombus are in the ratio 3:4. If its perimeter is 40 cm, find the lengths of the sides and diagonals of the rhombus.
32. Construct a quadrilateral ABCD in Which each side is 4.5 cm and one diagonal AC is 6 cm
33. Find the curved surface area and total surface area of a right circular cylinder whose height is 15 cm and the radius of the base is 7 cm.
34. The radius and height of a cylinder are in the ratio 5 : 7 and its volume is 550 cm^3 . Find its total surface area.