Techior Solutions Pvt. Ltd.
Godavari Complex, Hingna T-Point, Nagpur
Contact No: 9766616435
Email Id:techior.solutions@gmail.com

Time: 2 Hour Total Marks: 45

Class : VIII
Subject : Mathematics

MCQ SINGLE CORRECT

1. The sum of first n odd natural numbers is

   (a) 2n+1 **(b)** n^2

   (c) $n^2 - 1$ **(d)** $n^2 + 1$

2. Side of a square garden is 30 m. If the scale used to draw its picture is 1cm: 5m, the perimeter of the square in the picture is

   (a) 20 cm **(b)** 24 cm

   (c) 28 cm **(d)** 30 cm

3. PQRS is a trapezium in which PQ||SR and □P=130°, □Q=110°. Then □R is equal to:

   (a) 70° **(b)** 50°

   (c) 65° **(d)** 55°

4. If x = a, then which of the following is not always true for an integer k.

   (a) kx = ak **(b)** $\frac{x}{k} = \frac{a}{k}$

   (c) x – k = a – k **(d)** x + k = a + k

5. In a solid if F = V = 5, then the number of edges in this shape is

   (a) 6 **(b)** 4

   (c) 8 **(d)** 2

TRUE/FALSE

6. $(3x + 3x^2) + 3x = 3x^2$

   (a) True **(b)** False

7. Cube roots of 8 are +2 and -2.

   (a) True **(b)** False

8. A polyhedron can have 10 faces, 20 edges and 15 vertices.

   (a) True **(b)** False

9. All angles of a trapezium are equal.

All The Best!!!

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(a) True **(b)** False

10. A rhombus can be constructed uniquely if both diagonals are given.

(a) True **(b)** False

FILL IN THE BLANKS

11. Amrita takes 18 hours to travel 720 kilometres. Time taken by her to travel 360 kilometres is _____

12.  is a closed curve entirely made up of line segments. Another name for this shape is _____.

13. The polygon in which sum of all exterior angles is equal to the sum of interior angles is called _____.

14. The representation of an expression as the product of its factors is called _____.

15. There are _____ perfect cubes between 1 and 1000.

VERY SHORT DESC

16. Find the multiplicative inverse of the following : $-1 \times \frac{-2}{5}$

17. Factorise the following expression :
$25m^2 + 30m + 9$

18. Find the value of :
$(3^0 + 4^{-1}) \times 2^2$

19. Find the multiplicative inverse of the following : $\frac{-13}{19}$

20. Factorise the following expression :
$(l + m)^2 - 4lm$

SHORT DESC - 25 WORDS

21. Find the product :
$2x\ (3x + 5xy)$

22. Represent $\frac{-2}{11}, \frac{-5}{11}, \frac{-9}{11}$ on a number line.

23. Divide the given polynomial by the given monomial.
$(3y^8 - 4y^6 + 5y^4) \div y^4$

24. Find the common factors of the given terms :
$2x, 3x^2, 4$

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25. Solve the following equation :
$\frac{x}{3} + 1 = \frac{7}{15}$

MED DESC - 50 WORDS

26. The perimeter of a rectangular swimming pool is 154 m. Its length is 2 m more than twice its breadth. What are the length and the breadth of the pool ?

27. Kamala borrowed Rs. 26400 from a bank to buy a scooter at a rate of 15% p.a. compounded yearly. What amount will she pay at the end of 2 years and 4 months to clear the loan ?

28. Find the product :
$(p^2 – q^2) (2p + q)$

29. By what percent is Rs. 2000 less than Rs. 2400 ? Is it the same as the percent by which Rs. 2400 is more than Rs. 2000 ?

30. Solve the following equation :
$\frac{7y + 4}{y + 2} = \frac{-4}{3}$

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