

I. Choose the correct alternative for the following.

5x1=5

1) The reciprocal of -5 is

- A) 5                                      B)-1/5                                      C)1                                      D) 0

2) When a die is thrown list the outcomes of an event of getting a prime number

- A) 2,3,5                                      B)1,2,3                                      C)1,3,5                                      D) 2,5,6

3)  $\sqrt{625} = \dots\dots\dots$

- A) 1                                      B)25                                      C)5                                      D) 6

4)  $a^m \times a^n = \dots\dots\dots$

- A)  $a^{mn}$                                       B)  $a^{m+n}$                                       C)  $a^{m-n}$                                       D)  $ab^{mn}$

5) The perimeter of the given figure

- A) 10cm                                      B)20cm                                      4cm  
C) 15cm                                      D)14cm

6cm

II. Answer the following.

6x1=6

6. If  $4x+12=24$ , then x is equals.....

7. All rectangles are squares (True / False )

8. The value of  $5^3$  is.....

9. Discount = Market price - .....

10.  $x(x^3 - 3) = \dots\dots\dots$

11.  $(a + b)^2 = \dots\dots\dots$

III. Answer the following.

2x6=12

12. Find three rational numbers between  $\frac{1}{4}$  and  $\frac{1}{2}$

13. Solve  $\frac{x+1}{2x+3} = \frac{3}{8}$

14. Find the square of 35 without actual multiplication.

15. Find the cube root of 64 by prime factorisation method.

16. Find the curved surface area of this cylinder.

17. A machine in a soft drink factory fills 840 bottles in 6 hours. How many bottles will it fill in 5 hours ?

h = 10cm

IV. Answer the following.

5x3=15

18. The measure of two adjacent angles of a parallelogram are in the ratio 3:2. Find the measure of each of the angles of the parallelogram.

19. When the die is thrown list the outcomes of an event of getting

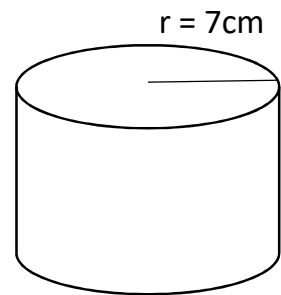
- i) Not a prime number
- ii) a number greater than 5
- iii) a square number

20. A TV was bought at a price of Rs 21000. After one year the value of the TV was depreciated by 5%. Find the value of the TV after one year.

21. Simplify the expression and evaluate them as directed.

$x(x + 3) + 2$  for  $x=1, x=2, x=-1$

22. Find the factors of  $m^2 + 7m + 10$



IV. Answer the following

3x4=12

23. The number of students in a hostel speaking different languages is given below. Display the data in a pie chart.

Language	Hindi	English	Marathi	Tamil	Bengali	Total
Number of students	40	12	9	7	4	72

24. In a building there are 24 cylindrical pillars. The radius of each pillar is 24 cm and height is 4 cm. Find the total cost of painting the curved surface area of all pillars at the rate of Rs 8 per  $m^2$ .

25. The following table gives the quantity of petrol and its cost

No of litres of petrol	10	15	20	25
Cost of petrol in Rs	500	750	1000	1250

Plot a graph to show the data.

I. Choose the correct alternative for the following.

5x1=5

1) The additive identity is.....

- A) 1                                      B)2                                      C)-1                                      D) 0

2) What is the probability of choosing a VOWEL, from the alphabet ?

- A)  $\frac{21}{26}$                                       B)  $\frac{5}{21}$                                       C)  $\frac{1}{26}$                                       D)  $\frac{5}{26}$

3)  $\sqrt{25} = \dots\dots\dots$

- A) 1                                      B)25                                      C)5                                      D) 6

4)  $a^m b^m = \dots\dots\dots$

- A)  $(ab)^m$                                       B)  $a^{m+n}$                                       C)  $a^{m-n}$                                       D)  $ab^{mn}$

5) The perimeter of the given figure

- A) 10cm                                      B)20cm                                      3cm  
C) 15cm                                      D)14cm

5cm

II. Answer the following.

6x1=6

6. If  $x+12=24$ , then x is equals.....

7. All parallelogram are squares (True / False )

8. The value of  $6^3$  is.....

9. Discount = Market price - .....

10.  $x(x^2 - 3) = \dots\dots\dots$

11.  $(a - b)^2 = \dots\dots\dots$

III. Answer the following.

2x6=12

12. Verify the associative property of multiplication for  $\frac{1}{4} \cdot \frac{1}{2}$  and  $\frac{1}{3}$

13. Solve  $\frac{x+1}{2x+3} = \frac{3}{8}$

14. Find the square of 50 with out actual multiplication.

15. Find the cube root of 125 by prime factorisation method.

16. Find the curved surface area of this cylinder.

17. A machine in a soft drink factory fills 840 bottles in 6 hours .How many bottles will it fill in 5 hours ?

h = 15cm

IV. Answer the following.

5x3=15

18. Write 3 properties of Rhombus.

19. When the die is thrown list the outcomes of an event of getting

- i) a prime number  
ii) a number greater than 2  
iii) a cube number

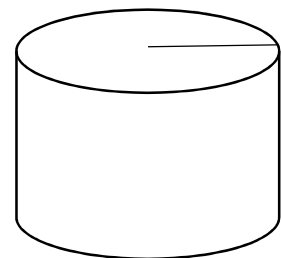
20. A TV was bought at a price of Rs 21000. After one year the value of the TV was depreciated by 5%. Find the value of the TV after one year.

21. Simplify the expression and evaluate them as directed.

$$x(x+2)+3 \text{ for } x=1, x=2, x=-1$$

22. Find the factors of  $m^2 + 5m + 6$

r = 14cm



IV. Answer the following

3x4=12

23. The number of students in a hostel speaking different languages is given below. Display the data in a pie chart.

Activity	Sleep	School	Home work	Play	Others	Total
Time ( hours )	8	6	4	4	2	24

24. In a building there are 24 cylindrical pillars. The radius of each pillar is 24cm and height is 4cm. Find the total cost of painting the curved surface area of all pillars at the rate of Rs 8 per  $m^2$ .

25. Draw a graph for the following.

Side of square (in cm)	2	3	3.5	5	6
Perimeter (in cm)	8	12	14	20	24

Is it a linear graph ?