

Roll No.

Code : SSMA802

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SESSION ENDING EXAMINATION- 2018-19

CLASS - VIII
MATHEMATICS

Sl. No. 2527

Time - 2½ Hrs.]

[Maximum Marks - 80

General Instructions:

- (i) Attempt all questions.
- (ii) The question paper consists of 30 questions divided into four sections A, B, C and D.
- (iii) Section -A contains 6 questions of 1 mark each.
Section - B contains 6 questions of 2 marks each.
Section - C contains 10 questions of 3 marks each.
Section - D contains 8 questions of 4 marks each.
- (iv) Use of any electronic gadget is not permitted.

SECTION - A (1 × 6 = 6)

1. Find the product of
 $a^2 \times 2a^{22} \times 4a^{26}$
2. Write the multiplicative inverse of -13.
3. The perimeter of a rectangle is 30 cm and its length is 9 cm . Find its width.
4. Find the volume of cuboid whose dimensions are 6 cm × 4cm × 3cm.
- 5- Factorize :
 $7a^2+14a$

Turn Over

6. Express the following number in standard form.

0.00000038

SECTION- B (2 × 6 = 12)

7. Factorize

$$P^2 + 6p + 8$$

8. Find any two rational numbers between $\frac{2}{3}$ and $\frac{4}{5}$.

9. Subtract :

$$4a - 7ab + 3b + 12 \text{ from } 12a - 9ab + 5b - 3$$

10. The diagonals of a rhombus are 7.5 cm and 12 cm. Find its area.

11. If 31Z5 is a multiple of 9, Where Z is a digit. What is the value of Z ?

12. Simplify :

$$(t+s^2)(t-s^2)$$

SECTION-C (3 × 10 = 30)

13. A group of 360 people were asked to vote for their favourite season from the three seasons rainy, winter and summer.

SEASON	No. of Votes
SUMMER	90
RAINY	120
WINTER	150

- (i) Find the central angle of each sector.
(ii) Draw a pie chart to show this information.

14. Two numbers are in the ratio 5:3. If they differ by 18, What are the numbers ?
15. Construct a quadrilateral MIST where MI = 3.5 cm, IS = 6.5 cm, $\angle M = 75^\circ$, $\angle I = 105^\circ$ and $\angle S = 120^\circ$.
6. Write any three rational numbers between -2 and 0.
17. Draw a bottle and show its side & Top view.
18. By using Euler's formula find
Faces = ?
Vertices = 6
Edges = 12
19. The area of a trapezium is 34 cm^2 and the length of one of the parallel sides is 10 cm and its height is 4 cm. Find the length of the other parallel sides.
20. Plot the following points in a graph paper
A (0,2), B (3,1), C (3,3)
21. Simplify : $\frac{25 \times t^{-4}}{5^{-3} \times 10 \times t^{-8}} \quad t \neq 0$
22. A machine in a soft drink factory fill 840 bottles in 6 hrs. How many bottles will it fill in five hours ?

SECTION-D (4 × 8 = 32)

23. The age of Hari and Harry are in the ratio 5:7. Four years from now the ratio of their ages will be 3:4. Find their present ages.
24. With the help of ruler and compass draw a Rhombus whose diagonals are 5.2 cm and 6.4 cm .

Turn Over

25. Find m so that

$$(-3)^{m+1} \times (-3)^5 = (-3)^7$$

26.- Show that

$$(3x + 7)^2 - 84x = (3x-7)^2$$

27. A closed cylindrical tank of radius 7 m and height 3 m is made from a sheet of metal. How much sheet of metal is required ?

28. If 15 workers can build a wall in 48 hours, how many workers will be required to do the same work in 30 hours ?

29. Draw a graph for the following :

No. of apples	1	2	3	4	5
Cost (in Rs.)	5	10	15	20	25

30. Check the divisibility of 21436587 by 9.
