KENDRIYA VIDYALAYA SANGATHAN, LUCKNOW REGION
SESSION ENDING EXAMINATION, 2018-19

SUBJECT: MATHEMATICS | **MAX. MARKS : 80**
CLASS : VIII | **DURATION : $2\frac{1}{2}$HRS**

General Instructions:

(i). All questions are compulsory.

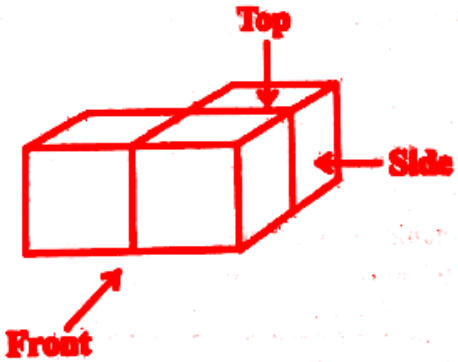
(ii). This question paper contains 30 questions divided into four Sections A, B, C and D.

(iii). Section A comprises of 6 questions of 1 mark each. Section B comprises of 6 questions of 2marks each. Section C comprises of 10 questions of 3 marks each and Section D comprises of 8questions of 4 marks each.

(iv). Use of Calculator is not permitted

SECTION – A

1. When a die is thrown, find the Probability of an event of getting a prime number.
2. How many sides does a regular polygon have if each of its interior angles is 165^0?
3. Simplify: $(2^8 + 2^3) \times 2^{-5}$
4. Find the solution of $3y - 4 = 11$.
5. How many natural numbers lie between squares of 12 and 13?
6. Draw the top view of the given solid:



SECTION – B

7. Find the smallest square number that is divisible by each of the numbers 8, 15 and 20.
8. Write a Pythagorean triplet whose one member is 14.
9. Factorise : (i) $x^2 + xy + 8x + 8y$
   (ii) $15xy - 6x + 5y - 2$
10. A machine in a soft drink factory fills 540 bottles in six hours. How many bottles will it fill in five hours?

11. Find the value of m for which $5^m \div 5^{-3} = 5^5$

12. Fill in the blanks:

I. We need pair of .....for representing a point on the Cartesian plane.

II. The horizontal and vertical line in a line graph are usually called .....and .....

SECTION – C

13. State whether True or False.

(a) All rectangles are squares.

(b) All parallelograms are trapeziums.

(c) All rhombuses are parallelograms

14. The shoppers who come to a departmental store are marked as: man (M), woman (W), boy (B) or girl (G). The following list gives the shoppers who came during the first hour in the morning:

WWWGBWWMGGMMWWWWGBMWBGGMWWMMWW

WMWBWGMWWWWGWMMWWMWGWMGWMMBGGW

Make a frequency distribution table using tally marks.

15. 7744 Students are sitting in an auditorium in such a manner that there are as many students in a row as there are rows in the auditorium. How many rows are there in the auditorium?

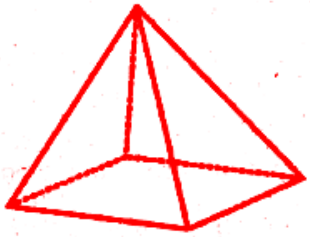
16. Simplify: $3x(4x - 5) + 3$ and find its value for (i) $x = 3$ (ii) $x = \frac{1}{2}$

17. (a) Add: $7xy + 5yz - 3zx$, $4yz + 9zx - 4y$, $-3xz + 5x - 2xy$.

(b) Subtract $5x^2 - 4y^2 + 6y - 3$ from $7x^2 - 4xy + 8y^2 + 5x - 3y$.

18. The shape of a garden is rectangular in the middle and semicircular at the ends as shown in the diagram Find the area and the perimeter of this garden

19. Verify Euler's formula for this solid:



20. A milk tank in the form of cylinder whose radius is 1.5m and length is 7m. Find the Quantity of milk in litres that can be stored in the tank.

21. Simplify $\frac{3^{-5} \times 10^{-5} \times 125}{5^{-7} \times 6^{-5}}$

22. find the values of the letters in the following:

$$\begin{array}{r} 4\,A \\ +\ 2\,8 \\ \hline C\,B\,3 \end{array}$$

SECTION – D

23. Draw a rhombus whose diagonals are 5.2 cm and 6.4 cm long.

24. 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

25. If each edge of cube is doubled,

(i) How many times will its Surface area increase?

(ii) How many times will its Volume increase?

26. Using suitable Identities, Evaluate

(i) 297×303

(ii) 71^2

27. In a hostel of 50 Girls, there are food provisions for 40 days. if 30 more girls join the hostels, how long will these provisions last.

28. The following table gives the number of apples and its cost

Number of apples	1	2	3	4	5
Cost (in Rs)	5	10	15	20	25

Plot a graph to show the Data.

29. Write the following numbers in Standard form

(i) 32450000

(ii) 0.0000375

(iii) 94200000

(iv) 0.0000029

30. (a) Factorise: $P^4 - 81$

(b) Factorise the expressions and divide as directed : $(m^2 - 10m + 21) \div (m - 3)$