KENDRIYA VIDYALAYA GACHIBOWLI, HYDERABAD – 32
SAMPLE PAPER 01 FOR SA – II (2016-17)

SUBJECT: MATHEMATICS

BLUE PRINT : SA–II CLASS VIII

Unit/Topic	VSA (1 mark)	Short answer (2 marks)	Short answer (3 marks)	Long answer (4 marks)	Total
Algebraic Expression	1(1)	--	1(3)	1(4)	**3(8)**
Visualizing Solid Shapes	1(1)	2(4)	--	--	**3(5)**
Exponents and Powers	2(2)	1(2)	1(3)	--	**4(7)**
Mensuration	1(1)	1(2)	1(3)	1(4)	**4(10)**
Direct and Inverse Proportion	1(1)	1(2)	1(3)	1(4)	**4(10)**
Introduction to Graphs	1(1)	--	--	1(4)	**2(5)**
Factorisation	1(1)	--	3(9)	--	**4(10)**
Playing with Numbers	--	1(2)	1(3)	--	**2(5)**
Total	**8(8)**	**6(12)**	**8(24)**	**4(16)**	**26(60)**

MARKING SCHEME FOR SA – II

SECTION	MARKS	NO. OF QUESTIONS	TOTAL
VSA	1	8	08
SA – I	2	6	12
SA – II	3	8	24
LA	4	4	16
GRAND TOTAL			**60**

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SUBJECT: MATHEMATICS   **MAX. MARKS : 60**

CLASS : VIII   **DURATION : 2½ HRS**

General Instructions:
1. All questions are compulsory.
2. Question paper is divided into four sections: Section A consists 8 questions each carry 1 marks, Sections B consists 6 questions each carry 2 marks, Sections C consists 8 questions each carry 3 marks and Sections D consists 4 questions each carry 4 marks

SECTION – A

1. Find the product : $a^2(2ab – 5c)$

2. Find the area of a rhombus whose diagonals are of lengths 20 cm and 4.5 cm.

3. Find the value of $\left(6^{-1} – 8^{-1}\right)^{-1}$

4. Express Charge of an electron is 0.000,000,000,000,000,000,16 coulomb in standard form.

5. A machine in a soft drink factory fills 600 bottles in six hours. How many bottles will it fill in five hours?

6. Factorise: $14pq + 35pqr$

7. Draw the top view of the given solid:
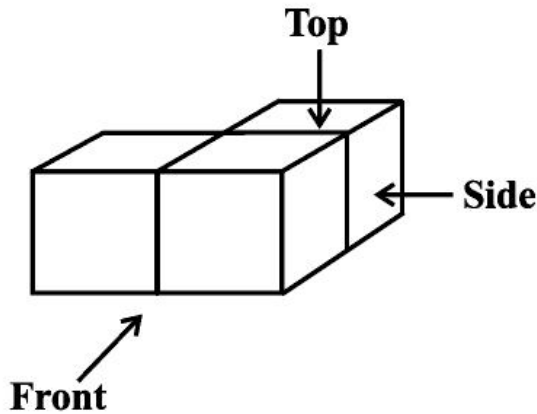

8. Write the coordinate of point A in the given graph:
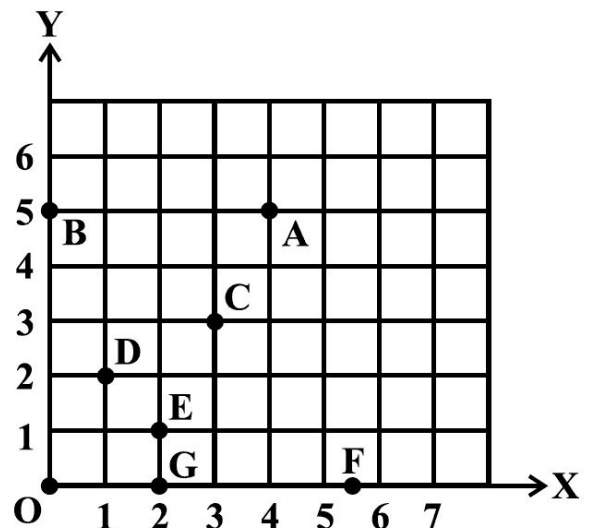
SECTION – B

9. Find m so that $(–3)^{m+1} \times (–3)^5 = (–3)^7$

10. The area of a trapezium shaped field is 480 m2, the distance between two parallel sides is 15 m and one of the parallel side is 20 m. Find the other parallel side.

11. An electric pole, 14 metres high, casts a shadow of 10 metres. Find the height of a tree that casts a shadow of 15 metres under similar conditions.

12. Draw the front view and top view of the below given object:

A military tent
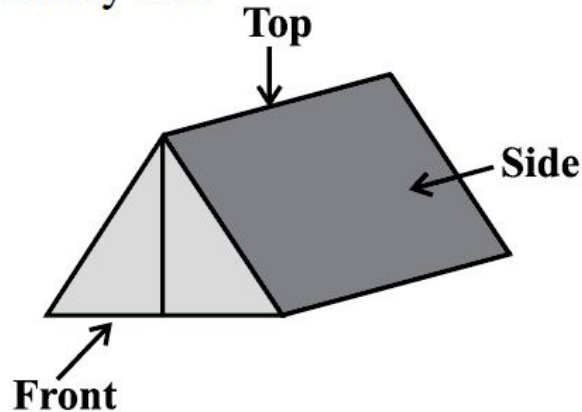
13. Using Euler's formula find the unknown.

Faces	?	5
Vertices	6	?
Edges	12	9

14. If $21y5$ is a multiple of 9, where y is a digit, what is the value of $y?$

SECTION – C

15. (a) Add: $p (p - q)$, $q (q - r)$ and $r (r - p)$
(b) Subtract: $3a (a + b + c) - 2 b (a - b + c)$ from $4c (- a + b + c)$

16. Simplify: $\dfrac{25 \times x^{-4}}{5^{-3} \times 10 \times x^{-8}}$

17. Daniel is painting the walls and ceiling of a cuboidal hall with length, breadth and height of 15 m, 10 m and 7 m respectively. From each can of paint 100 m^2 of area is painted. How many cans of paint will she need to paint the room?

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

19. Divide $z(5z^2 - 80)$ by $5z(z + 4)$

20. Factorise the expressions and divide as directed: $(y^2 + 7y + 10) \div (y + 5)$

21. Factorise (i) $6xy - 4y + 6 - 9x$ (ii) $x^2 + x y + 8x + 8y$

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

$$\begin{array}{r} 4\,A \\ +\ 9\,8 \\ \hline C\,B\,3 \end{array}$$

23. Use the Identity $(x + a)(x + b) = x^2 + (a + b)x + ab$ to find the following:
(i) 501×502
(ii) 95×103

24. Water is pouring into a cuboidal reservoir at the rate of 60 litres per minute. If the volume of reservoir is 108 m^3, find the number of hours it will take to fill the reservoir. What are the advantages of reservoir for farmer?

25. A train is moving at a uniform speed of 75 km/hour. (i) How far will it travel in 20 minutes? (ii) Find the time required to cover a distance of 250 km.

26. 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.

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