KENDRIYA VIDYALAYA GACHIBOWLI, HYDERABAD – 32

SAMPLE PAPER 03 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)	2(4)	1(3)	--	**4(8)**
Visualizing Solid Shapes	1(1)	--	--	1(4)	**2(5)**
Exponents and Powers	1(1)	--	2(6)	--	**3(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(2)	1(3)	--	**2(5)**
Factorisation	1(1)	1(2)	1(3)	1(4)	**4(10)**
Playing with Numbers	2(2)	--	1(3)	--	**3(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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SAMPLE PAPER 03 FOR SA – II (2016-17)

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. A machine in a soft drink factory fills 840 bottles in six hours. How many bottles will it fill in two hours?

2. If the division N ÷ 5 leaves a remainder of 1, what might be the one's digit of N?

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

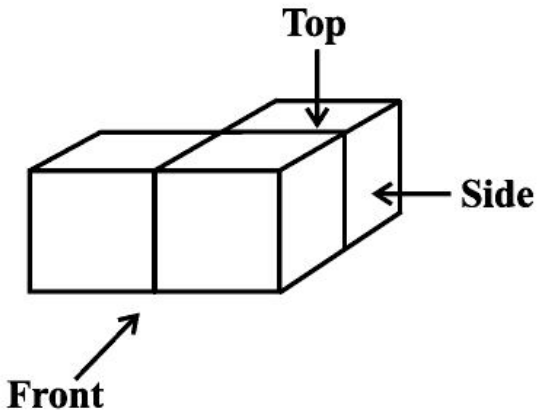
4. Find the product : $(a^2 - 9)4a$

5. Find the value of $\left(2^{-1} - 4^{-1}\right)^2$

6. Check the divisibility of 152875 by 9.

7. Factorise: $ax + bx - ay - by$

8. Draw the side view of the given solid:



SECTION – B

9. Subtract $4p^2q - 3pq + 5pq^2 - 8p + 7q - 10$ from $18 - 3p - 11q + 5pq - 2pq^2 + 5p^2q$

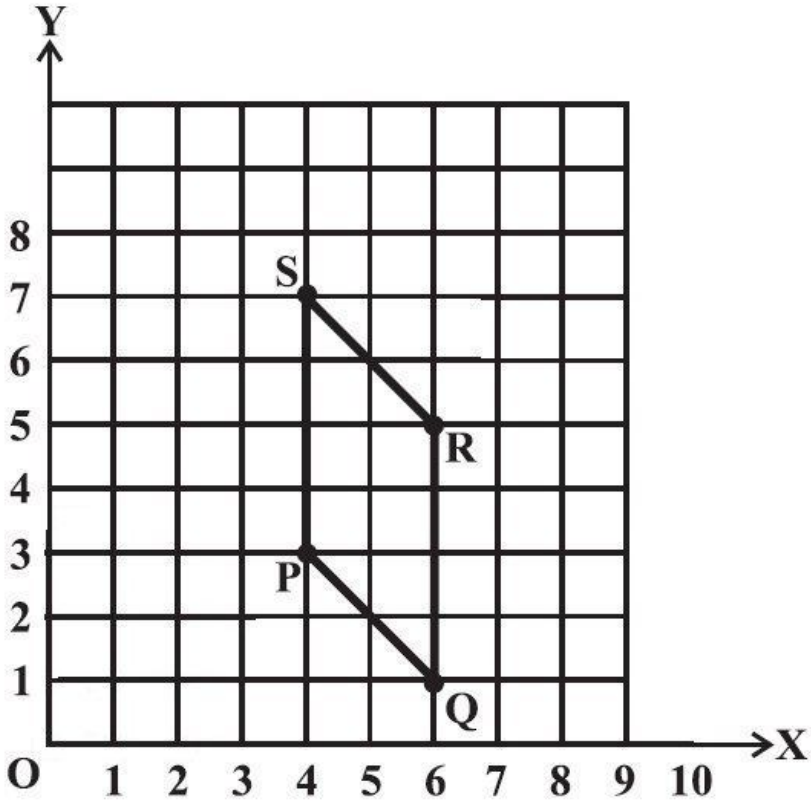
10. Find the area of a rhombus whose side is 6 cm and whose altitude is 4 cm. If one of its diagonals is 8 cm long, find the length of the other diagonal.

11. Simplify: $(a + b)(c - d) + (a - b)(c + d) + 2(ac + bd)$

12. 6 pipes are required to fill a tank in 1 hour 20 minutes. How long will it take if only 5 pipes of the same type are used?

13. Factorise: $5y^2 - 20y - 8z + 2yz$

14. Write the coordinates of the vertices of quadrilateral PQRS of below figure:



SECTION – C

15. Show that: $\left(\frac{4}{3}m-\frac{3}{4}n\right)^2+2mn=\frac{16}{9}m^2+\frac{9}{16}n^2$

16. In a building there are 24 cylindrical pillars. The radius of each pillar is 28 cm and height is 4 m. Find the total cost of painting the curved surface area of all pillars at the rate of Rs 8 per m^2.

17. Simplify: $\frac{25\times t^{-4}}{5^{-3}\times 10\times t^{-8}}(t\neq 0)$

18. The scale of a map is given as 1:30000000. Two cities are 4 cm apart on the map. Find the actual distance between them.

19. Plot the points A(4, 0), B(4, 2), C(4, 6), D(4, 2.5) on a graph sheet. Verify if they lie on a line.

20. If 31z5 is a multiple of 3, where z is a digit, what might be the values of z?

21. Factorise: $x^4 - (y + z)^4$

22. Express the number appearing in the following statements in standard form.
(i) Sun is located 300,000,000,000,000,000,000 m from the centre of our Milky Way Galaxy.
(ii) The distance between Sun and Saturn is 1,433,500,000,000 m
(iii) Size of a bacteria is 0.0000005 m

SECTION – D

23. A road roller takes 750 complete revolutions to move once over to level a road. Find the area of the road if the diameter of a road roller is 84 cm and length is 1 m.

24. A school has 8 periods a day each of 45 minutes duration. How long would each period be, if the school has 9 periods a day, assuming the number of school hours to be the same? What is the importance of Education in our society? Write any two.

25. Factorise the expressions and divide them as directed.
(i) $(5p^2 - 25p + 20) \div (p - 1)$ (ii) $4yz(z^2 + 6z - 16) \div 2y(z + 8)$

26. Using Euler's formula find the unknown.

Faces	6	5	?	20
Vertices	8	5	6	12
Edges	?	?	12	?