KENDRIYA VIDYALAYA GACHIBOWLI, GPRA CAMPUS, HYD–32

SAMPLE PAPER 01 FOR SESSION ENDING EXAM (2018-19)

SUBJECT: MATHEMATICS

BLUE PRINT FOR SESSION ENDING EXAM: CLASS VIII

Unit/Topic	VSA (1 mark)	SA-I (2 marks)	SA-II (3 marks)	LA (4 marks)	Total
Linear equations in one variable	1(1)	--		1(4)	**2(5)**
Understanding Quadrilaterals	1(1)	1(2)	1(3)	--	**3(6)**
Data Handlings	--	--	1(3)	1(4)	**2(7)**
Squares and Square Roots	1(1)	1(2)	1(3)	--	**3(6)**
Algebraic Expression	1(1)	--	1(3)	1(4)	**3(8)**
Visualizing Solid Shapes	--	1(2)	1(3)	--	**2(5)**
Mensuration	1(1)	--	2(6)	1(4)	**4(11)**
Exponents and Powers	1(1)	1(2)	--	1(4)	**3(7)**
Direct and Inverse Proportion	--	1(2)	1(3)	1(4)	**3(9)**
Factorisation	--	1(2)	1(3)	1(4)	**3(9)**
Introduction to Graphs	--	--	--	1(4)	**1(4)**
Playing with Numbers	--	--	1(3)	--	**1(3)**
Total	**6(6)**	**6(12)**	**10(30)**	**8(32)**	**30(80)**

Note:

1) 30% i.e. 24 marks of 1st term syllabus covering significant topics/chapters have taken as per CBSE guidelines.

2) Numerals inside the bracket indicate marks and outside the bracket indicate the number of questions

MARKING SCHEME FOR SESSION ENDING EXAM

SECTION	MARKS	NO. OF QUESTIONS	TOTAL
VSA	1	6	06
SA – I	2	6	12
SA – II	3	10	30
LA	4	8	32
GRAND TOTAL			**80**

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SUBJECT: MATHEMATICS **MAX. MARKS : 80**

CLASS : VIII **DURATION : 2½HRS**

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 **2 marks** each. **Section C** comprises of 10 questions of **3 marks** each and **Section D** comprises of 8 questions of **4 marks** each.

(iv). Use of Calculators is not permitted

SECTION – A

1. Solve: $5t - 3 = 3t - 5$

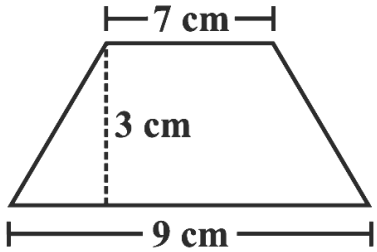
2. If three angles of a quadrilateral are each equal to 75°, then find the fourth angle.

3. Find the square of the number 42.

4. Find the product : $a^2(2ab - 5c)$

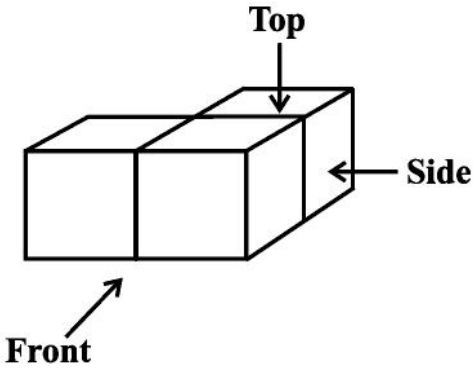
5. Find the value of $\left(6^{-1} - 8^{-1}\right)^{-1}$

6. Find the area of the below trapezium.



SECTION – B

7. Draw the top view of the given solid:



8. 2025 plants are to be planted in a garden in such a way that each row contains as many plants as the number of rows. Find the number of rows and the number of plants in each row.

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

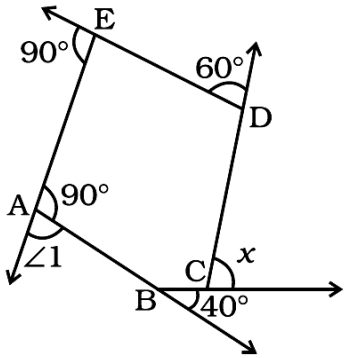
10. An electric pole, 14 metres high, casts a shadow of 10 metres. Find the height of a tree that casts a shadow of 15 metres under similar conditions.

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

12. The ratio of exterior angle to interior angle of a regular polygon is 1 : 4. Find the number of sides of the polygon.

SECTION – C

13. Find x in the following figure.

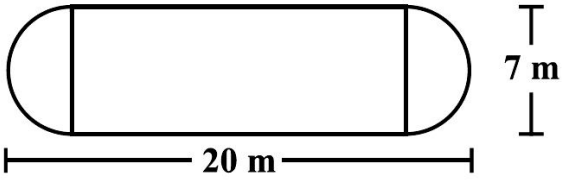


14. What is the least number that should be added to 6200 to make it a perfect square?

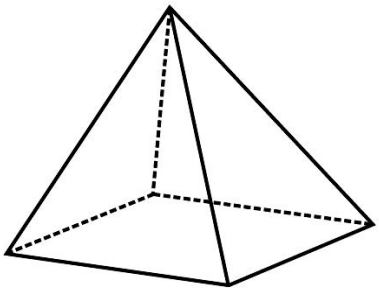
15. Factorise: (i) $4p^2 - 9q^2$ (ii) $a^4 + 2a^2b^2 + b^4$.

16. Simplify: (i) $(x^2 - 5)(x + 5) + 25$ (ii) $(a^2 + 5)(b^3 + 3) + 5$

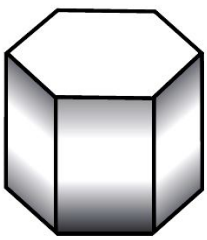
17. The shape of a garden is rectangular in the middle and semi circular at the ends as shown in the diagram. Find the area and the perimeter of this garden



18. Verify Euler's formula for these solids:



(i)



(ii)

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

20. Numbers 1 to 20 are written on ten separate slips (one number on one slip), kept in a box and mixed well. One slip is chosen from the box without looking into it. What is the probability of
(i) getting a number less than 6?
(ii) getting a number greater than 6?
(iii) getting a 1-digit number?

21. The internal measures of a cuboidal room are 12 m × 8 m × 4 m. Find the total cost of white washing all four walls of a room, if the cost of white washing is Rs 5 per m^2. What will be the cost of white washing if the ceiling of the room is also white washed.

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

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

SECTION – D

23. Present ages of Anu and Raj are in the ratio 4:5. Eight years from now the ratio of their ages will be 5:6. Find their present ages.

24. Draw a pie chart of the data given below. The time spent by a child during a day.

Sleep	– 8 hours
School	– 6 hours
Home work	– 4 hours
Play	– 4 hours
Others	– 2 hours

25. Use suitable Identity to find the following:
(i) 501 × 502 (ii) 99^2

26. 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?

27. 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.

28. 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.

29. Write the following numbers in standard form.
(i) 0.000000564
(ii) 0.0000021
(iii) 21600000
(iv) 15240000

30. (a) Divide $z(5z^2 - 80)$ by $5z(z + 4)$
(b) Factorise the expressions and divide as directed: $(y^2 + 7y + 10) \div (y + 5)$