

**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 VII**

Unit/Topic	VSA (1 mark)	SA-I (2 marks)	SA-II (3 marks)	LA (4 marks)	Total
Integers	--	--	1(3)	--	<b>1(3)</b>
Congruence of Triangles	--	--	1(3)	1(4)	<b>2(7)</b>
Comparing Quantities	--	1(2)	--	1(4)	<b>2(6)</b>
Rational Numbers	1(1)	1(2)	1(3)	1(4)	<b>4(10)</b>
Practical Geometry	--	--	1(3)	1(4)	<b>2(7)</b>
Perimeter and Area	1(1)	1(2)	2(6)	1(4)	<b>5(13)</b>
Algebraic Expressions	1(1)	--	2(6)	1(4)	<b>4(11)</b>
Exponents and Powers	1(1)	1(2)	1(3)	1(4)	<b>4(10)</b>
Symmetry	1(1)	1(2)	1(3)	--	<b>3(6)</b>
Visualizing Solid Shapes	1(1)	1(2)	--	1(4)	<b>3(7)</b>
<b>Total</b>	<b>6(6)</b>	<b>6(12)</b>	<b>10(30)</b>	<b>8(32)</b>	<b>30(80)</b>

**Note:**

- 1) 20% i.e. 16 marks of 1<sup>st</sup> 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
<b>GRAND TOTAL</b>			<b>80</b>

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**SUBJECT: MATHEMATICS**  
**CLASS : VII**

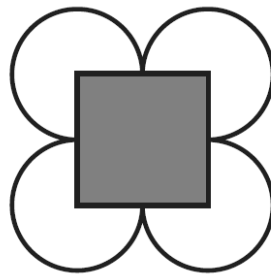
**MAX. MARKS : 80**  
**DURATION : 2½HRS**

**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. If  $p = -2$ , find the value of  $-4p + 7$
2. Express 512 using exponential notation.
3. Reduce  $\frac{-45}{30}$  to the standard form.
4. Find the area of a circle of radius 30 cm (use  $\pi = 3.14$ ).
5. What cross-sections do you get when you give a horizontal cut to the circular pipe?
6. Find the number of lines of symmetry of the given figure:



**SECTION – B**

7. Find the whole quantity if 5% of it is 600.
8. Draw a rough sketch of a quadrilateral with a rotational symmetry of order more than 1 but not line symmetry.
9. Simplify and write the answer in the exponential form:  $[(2^2)^3 \times 3^6] \times 5^6$
10. If two cubes of dimensions 2 cm by 2cm by 2cm are placed side by side, what would the dimensions of the resulting cuboid be?
11. Find the value of  $\frac{3}{13} \div \left(\frac{-4}{65}\right)$

12. The circumference of a circle is 31.4 cm. Find the radius and the area of the circle? (Take  $\pi = 3.14$ )

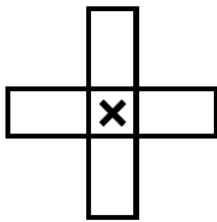
**SECTION – C**

13. Simplify:  $\frac{(2^5)^2 \times 7^3}{8^3 \times 7}$

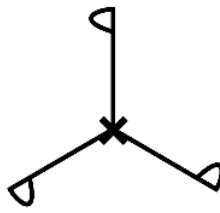
14. An elevator descends into a mine shaft at the rate of 6 m/min. If the descent starts from 10 m above the ground level, how long will it take to reach – 350 m.

15. Find any three rational numbers between  $\frac{-5}{6}$  and  $\frac{5}{8}$

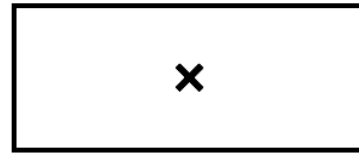
16. Give the order of the rotational symmetry of the given figures about the point marked x.



(i)



(ii)



(iii)

17. Add:

(i)  $14x + 10y - 12xy - 13$ ,  $18 - 7x - 10y + 8xy$ ,  $4xy$

(ii)  $5m - 7n$ ,  $3n - 4m + 2$ ,  $2m - 3mn - 5$

18. When  $a = 0$ ,  $b = -1$ , find the value of the given expressions: (i)  $2a^2b + 2ab^2 + ab$  (ii)  $a^2 + ab + 2$

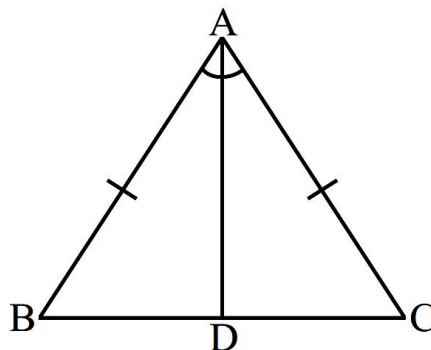
19. Construct the right angled  $\Delta PQR$ , where  $m\angle Q = 90^\circ$ ,  $QR = 8\text{cm}$  and  $PR = 10\text{cm}$ .

20. In the below figure,  $AB = AC$  and  $AD$  is the bisector of  $\angle BAC$ .

(i) State three pairs of equal parts in triangles  $ADB$  and  $ADC$ .

(ii) Is  $\Delta ADB \cong \Delta ADC$ ? Give reasons.

(iii) Is  $\angle B = \angle C$ ? Give reasons.

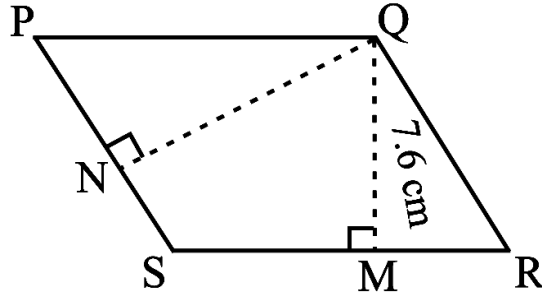


21. A path 1 m wide is built along the border and inside a square garden of side 30 m. Find:

(i) the area of the path

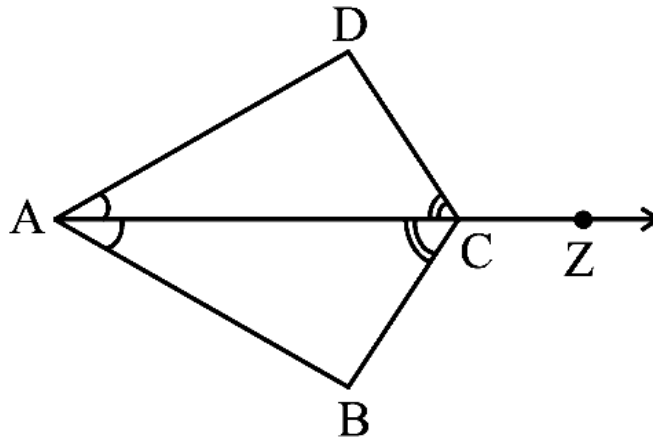
(ii) the cost of planting grass in the remaining portion of the garden at the rate of Rs 40 per  $\text{m}^2$ .

22. PQRS is a parallelogram (see the below). QM is the height from Q to SR and QN is the height from Q to PS. If SR = 12 cm and QM = 7.6 cm. Find: (a) the area of the parallelogram PQRS (b) QN, if PS = 8 cm



### SECTION – D

23. In the below figure, ray AZ bisects  $\angle DAB$  as well as  $\angle DCB$ .
- State the three pairs of equal parts in triangles BAC and DAC.
  - Is  $\triangle BAC \cong \triangle DAC$ ? Give reasons.
  - Is  $AB = AD$ ? Justify your answer.
  - Is  $CD = CB$ ? Give reasons.



24. Anita takes a loan of Rs 5,000 for donating books to the poor, at 15% per year as rate of interest. Find the interest she has to pay at end of three years.
25. (a) From the sum of  $3x - y + 11$  and  $-y - 11$ , subtract  $3x - y - 11$ .  
 (b) What should be taken away from  $3x^2 - 4y^2 + 5xy + 20$  to obtain  $-x^2 - y^2 + 6xy + 20$ ?
26. Represent these numbers on the number line. (i)  $\frac{7}{4}$  (ii)  $-\frac{5}{6}$  (iii)  $\frac{4}{7}$  (iv)  $-\frac{6}{9}$
27. Construct  $\triangle ABC$ , given  $m\angle A = 60^\circ$ ,  $m\angle B = 30^\circ$  and  $AB = 5.8$  cm.
28. Two cross roads, each of width 5 m, run at right angles through the centre of a rectangular park of length 70 m and breadth 45 m and parallel to its sides. Find the area of the roads. Also find the cost of constructing the roads at the rate of Rs 105 per  $m^2$ .
29. Express the number appearing in the following statements in standard form.
- The distance between Earth and Moon is 384,000,000 m.
  - Speed of light in vacuum is 300,000,000 m/s.
  - Diameter of the Earth is 1,27,56,000 m.
  - Diameter of the Sun is 1,400,000,000 m.

30. For given solid, draw the top view, front view and side view.

