

KENDRIYA VIDYALAYA GACHIBOWLI , HYDERABAD - 32
SAMPLE PAPER 02 FOR SA - I (2016-17)

SUBJECT: MATHEMATICS

BLUE PRINT : SA-I CLASS VII

Unit/Topic	VSA (1 mark)	Short answer (2 marks)	Short answer (3 marks)	Long answer (4 marks)	Total
Integers	1(1)	--	1(3)	1(4)	3(8)
Fractions and Decimals	1(1)	1(2)	1(3)	--	3(6)
Data Handlings	1(1)	--	1(3)	1(4)	3(8)
Simple Equations	1(1)	1(2)	1(3)	--	3(6)
Lines and Angles	1(1)	1(2)	1(3)	1(4)	4(10)
Triangle and its properties	1(1)	1(2)	1(3)	1(4)	4(10)
Practical Geometry	--	1(2)	1(3)	--	2(5)
Exponents and Powers	2(2)	1(2)	1(3)	--	4(7)
Total	8(8)	6(12)	8(24)	4(16)	26(60)

MARKING SCHEME FOR SA – I

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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CLASS : VII

MAX. MARKS : 60
DURATION : 2½ HRS

General Instructions:

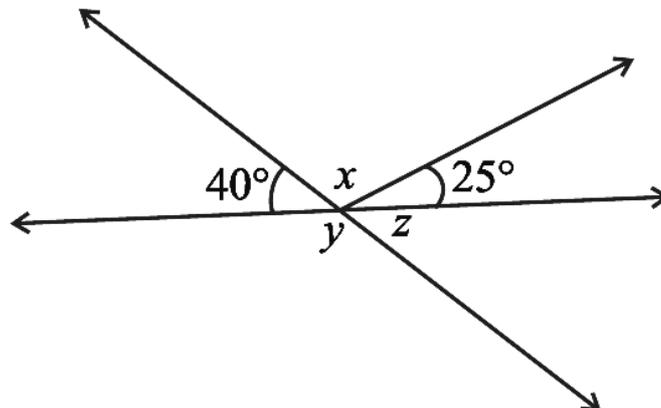
1. All questions are compulsory.
 2. Question paper is divided into four sections: Section A consists 8 questions each carry 1 marks, Sections B consists 6 questions each carry 2 marks, Sections C consists 8 questions each carry 3 marks and Sections D consists 4 questions each carry 4 marks
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SECTION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

1. Find the mean of the first five whole numbers.
2. Write equations for the statements: If you add 3 to one third of z , you get 30.
3. Evaluate: $[(-6) + 5] \div [(-2) + 1]$
4. Express 7 rupees 7 paise as rupees using decimals.
5. Write the Side opposite to the vertex Q of ΔPQR
6. Find the angle which is equal to its supplement.
7. Express 729 as a power 3.
8. Express 648 as a product of powers of prime factors

SECTION – B

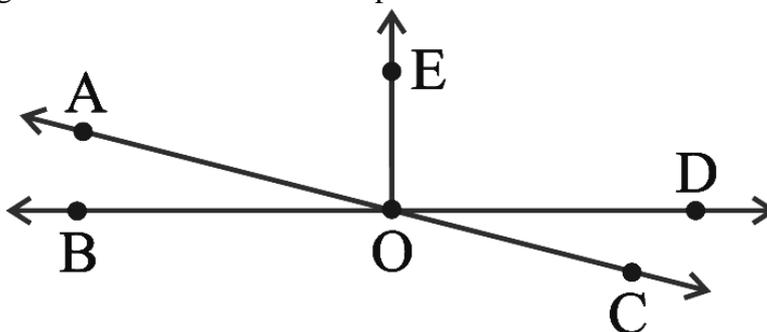
9. Solve: $3n + 7 = 25$
10. The length of a rectangle is 7.1 cm and its breadth is 2.5 cm. What is the area of the rectangle?
11. PQR is a triangle right angled at P. If $PQ = 10$ cm and $PR = 24$ cm, find QR.
12. Construct an equilateral triangle of side 5.5 cm.
13. Find the values of the angles x , y , and z in the given figure:



14. Simplify: $\frac{25 \times 5^2 \times t^8}{10^3 \times t^4}$

SECTION – C

15. The marks (out of 100) obtained by a group of students in a science test are 85, 76, 90, 85, 39, 48, 56, 95, 81 and 75. Find the:
- Range of the marks obtained.
 - Mean marks obtained by the group.
 - What you will do to get good marks?
16. In the adjoining figure, name the following pairs of angles.
- Obtuse vertically opposite angles
 - Adjacent complementary angles
 - Adjacent angles that do not form a linear pair

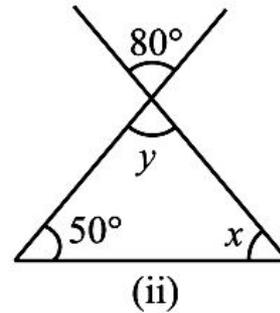
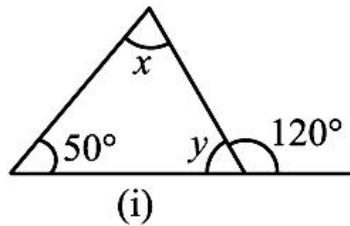


17. Maya, Madhura and Mohsina are friends studying in the same class. In a class test in geography, Maya got 16 out of 25. Madhura got 20. Their average score was 19. How much did Mohsina score?
18. The temperature at 12 noon was 10°C above zero. If it decreases at the rate of 2°C per hour until midnight, at what time would the temperature be 8°C below zero? What would be the temperature at mid-night?
19. Sushant reads $\frac{1}{3}$ part of a book in 1 hour. How much part of the book will he read in $2\frac{1}{5}$ hours?
20. Construct the right angled ΔPQR , where $m \angle Q = 90^{\circ}$, $QR = 8\text{cm}$ and $PR = 10\text{ cm}$.
21. A tree is broken at a height of 7 m from the ground and its top touches the ground at a distance of 24 m from the base of the tree. Find the original height of the tree.
22. Express the number appearing in the following statements in standard form.
- In a galaxy there are on an average 100,000,000,000 stars.
 - The universe is estimated to be about 12,000,000,000 years old.
 - The distance of the Sun from the centre of the Milky Way Galaxy is estimated to be 300,000,000,000,000,000 m.

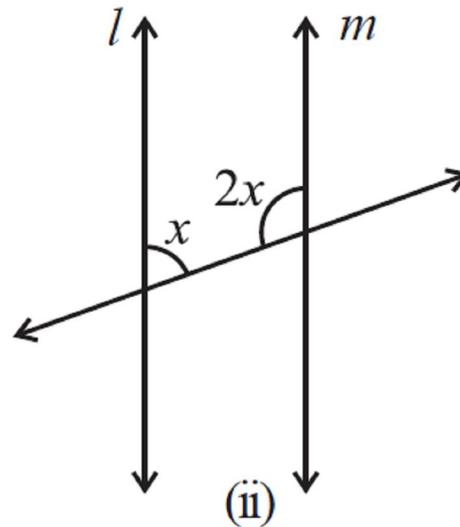
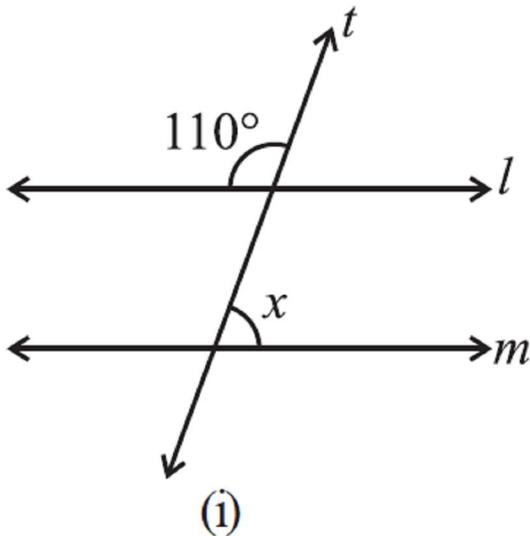
SECTION – D

23. A shopkeeper earns a profit of Re 1 by selling one pen and incurs a loss of 40 paise per pencil while selling pencils of her old stock. (i) In a particular month she incurs a loss of Rs 5. In this period, she sold 45 pens. How many pencils did she sell in this period? (ii) In the next month she earns neither profit nor loss. If she sold 70 pens, how many pencils did she sell?

24. Find the values of the unknowns x and y in the following diagrams:



25. Find the value of x in each of the following figures if $l \parallel m$.



26. Two hundred students of 6th and 7th class were asked to name their favourite colour so as to decide upon what should be the colour of their School Building. The results are shown in the following table. Represent the given data on a bar graph.

Favourite Colour	Red	Green	Blue	Yellow	Orange
Number of Students	43	19	55	49	34

Answer the following questions with the help of the bar graph:

- (i) Which is the most preferred colour and which is the least preferred?
- (ii) How many colours are there in all? What are they?

