




INDIAN SCHOOL SOHAR
TERM I EXAMINATION (2023-24)
MATHEMATICS

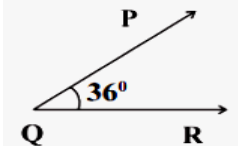
CLASS: VII
DATE: 21/09/2023

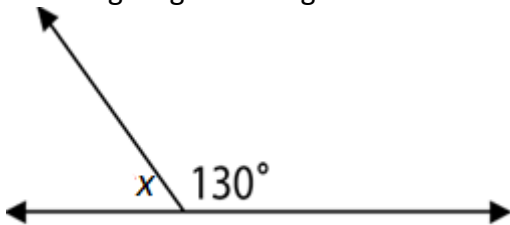
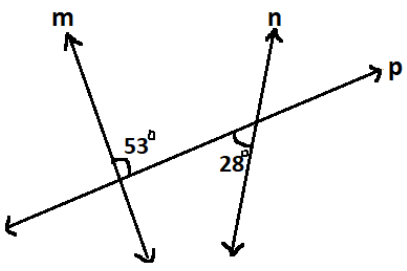
MAX. MARKS: 80
TIME: 3 HOURS

General Instructions:

1. This Question paper contains- five sections **A, B, C, D** and **E**. Each section is compulsory. However, there are internal choices in some questions.
2. Section A has 18 multiple choice questions (MCQs) and 2 Assertion - Reason based questions of 1 mark each.
3. Section B has 5 Very Short Answer (VSA) – type questions of 2 mark each.
4. Section C has 6 Short Answer (SA) – type questions of 3 mark each.
5. Section D has 4 Long Answer (LA) – type questions of 5 mark each.
6. Section E has 3 case based integrated unit of assessment of 4 marks each with sub-parts.

SECTION - A (Multiple Choice Questions) Each question carries 1 mark		
Q.No.	Questions	Marks
1.	The product of (-2), (-3) and (-4) is : (a) 24 (b) (-24) (c) 9 (d) (- 10)	1
2.	To divide a decimal number by 100, we shift the decimal point to (a) left by 1 place (b) right by 1 place (c) left by 2 places (d) same place	1
3.	The mode of the data 3, 14, 16, 12, 14, 16, 14, 12, 10, 18, 5, 14 is : (a) 12 (b) 14 (c) 16 (d) 10	1
4.	Form the equation: “The sum of one-third of y and 10 is 4” (a) $y + 10 = 4$ (b) $\frac{y+10}{3} = 4$ (c) $\frac{y}{3} + 10 = 4$ (d) $y + 4 = \frac{10}{3}$	1
5.	Two angles are called supplementary angles if the sum of their measures is : (a) 180^0 (b) 45^0 (c) 90^0 (d) 360^0	1
6.	The reciprocal of $(-\frac{7}{2})$ is : (a) 0 (b) 1 (c) $(-\frac{2}{7})$ (d) $\frac{7}{2}$	1
7.	Which of the following fractions represents the given picture? <div style="display: flex; justify-content: center; align-items: center; gap: 20px;">  </div> (a) $3 \times \frac{2}{5}$ (b) $3 \times \frac{2}{4}$ (c) $3 \times \frac{1}{4}$ (d) $3 \times \frac{1}{5}$	1
8.	The solution of $4 + m = 24$ is: (a) 20 (b) (-20) (c) 28 (d) (-28)	1
9.	The product of a rational number and its multiplicative inverse is : (a) 0 (b) 1 (c) (-1) (d) Does not exist	1

10.	The integer 5 more than (-4) is : (a) 9 (b) 1 (c) (-1) (d) 9	1
11.	The following are the number of goals scored by a team in a series of 11 football matches. 2, 4, 7, 6, 2, 3, 4, 6, 7, 6, 8. The median of the scores is: (a) 3 (b) 4 (c) 5 (d) 6	1
12.	If 2 parallel lines are intersected by a transversal, then pair of alternate interior angles are : (a) equal (b) linear pair (c) complementary (d) supplementary	1
13.	The standard form of $\frac{16}{-64}$ is : (a) $\frac{3}{4}$ (b) $\frac{1}{4}$ (c) $\frac{1}{2}$ (d) $(\frac{-1}{4})$	1
14.	The complement angle of the given figure is : (a) 54° (b) 144° (c) 90° (d) 270°	1
		
15.	The sum of $3p$ and $5p$ is (-40) , the value of p is : (a) 5 (b) (-5) (c) 8 (d) (-8)	1
16.	The value that occurs most frequently in a given data is called its : (a) mode (b) mean (c) median (d) range	1
17.	$2.7 \times 12 =$ (a) 44.8 (b) 5.13 (c) 32.4 (d) 25.54	1
18.	Which of the following integers give their sum as (-7) ? (a) 10, (-3) (b) (-5) , (-2) (c) 8, 0 (d) (-8) , (-1)	1
	Assertion - Reason Based Questions In the following questions, a statement of Assertion(A) is followed by a statement of Reason (R) . Choose the correct answer out of the following choices. (a) Both Assertion (A) and Reason (R) are true and Reason(R) is the correct explanation of Assertion(A) . (b) Both Assertion(A) and Reason(R) are true and Reason(R) is not the correct explanation of Assertion(A) . (c) Assertion (A) is true but the Reason(R) is false. (d) Assertion(A) is false but Reason (R) is true.	
19.	Assertion (A): The complement of 15° is 75° . Reason (R): Two angles are said to be complementary if the sum of their measures is 90° .	1
20.	Assertion (A): Closure property is not applicable to division operation of integers. Reason (R): $(-5) \times (-7) = (-7) \times (-5)$ is a closure property.	1
SECTION B [This section comprises of very short answer type questions (VSA) of 2 marks each]		
21.	The temperature of Delhi which was 45°C fell by 2°C each day for a week. What is the temperature after one week?	2
22.	Find $\frac{5}{9} \times 2\frac{7}{10}$	2

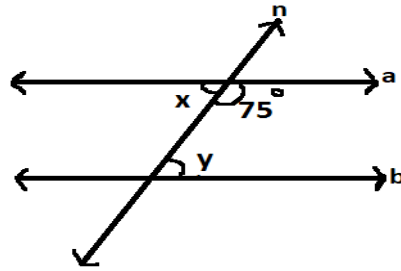
23.	Reyansh, a batsman scored following runs in 7 matches: $36, 35, 50, 46, 60, 55, 48$ Calculate the range of Reyansh's score. <p style="text-align: center;">(OR)</p> Tarun, a batsman scored following runs in 5 matches: $40, 32, 46, 50, 55$ Calculate the median of Tarun's score.	2
24.	Check whether the value given in the brackets is a solution to the equation or not $5p + 2 = 17$ for $(p = 3)$	2
25.	Find the value of $\angle x$ in the following diagram and give reason. <div style="text-align: center;">  </div> <p style="text-align: center;">(OR)</p> In the given below figure, check whether m is parallel to n and justify your answer. <div style="text-align: center;">  </div>	2

SECTION C

[This section comprises of short answer type questions (SA) of 3 marks each]

26.	Find : (i) $\frac{5}{4} - \left(\frac{-3}{5}\right)$ (ii) $\frac{3}{-11} \times \frac{2}{3}$ <p style="text-align: center;">(OR)</p> Represent the rational numbers $\frac{-5}{3}, \frac{2}{3}$ on a number line.	3
27.	In a class of 40 students, $\frac{1}{5}$ of the total number of students like to eat only rice, $\frac{2}{5}$ of the total number of students like to eat only chapati and the remaining students like to eat both. Find the number of students who like to eat both. <p style="text-align: center;">(OR)</p> Solve the following: (i) $\frac{35}{4} \div \frac{7}{8}$ (ii) 0.987×1000 (iii) $0.73 \div 10$	3

28.	Solve the equation $\frac{t}{4} + 3 = 27$ (OR) Priyal studied for 5 hours, 3 hours and 7 hours respectively on 3 consecutive days. Calculate the mean hours that she studies daily on an average?	3
29.	The monthly income of eight families in a village are ₹1500, ₹1300, ₹1200, ₹1000, ₹1600, ₹1000, ₹2000 and ₹1500. Find the median income of the families.	3
30.	The monthly consumption of rice by a family is 12.5kg. How much rice is consumed by the family in two years?	3
31.	If a and b are parallel lines and n is a transversal, find the measure of X and Y from the following figure and also give the reason.	3

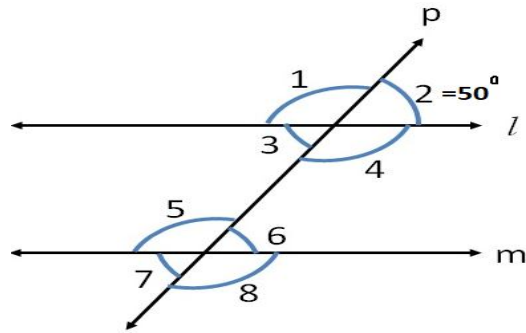


SECTION D

[This section comprises of long answer type questions (LA) of 5 marks each]

32.	<p>Draw a double bar graph for the list of number of students of class VI and class VII playing different sports given below:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Name of the Sport</th> <th>Cricket</th> <th>Badminton</th> <th>Basketball</th> <th>Football</th> </tr> </thead> <tbody> <tr> <td>Class VI</td> <td>20</td> <td>10</td> <td>16</td> <td>15</td> </tr> <tr> <td>Class VII</td> <td>16</td> <td>13</td> <td>14</td> <td>12</td> </tr> </tbody> </table> <p align="center">(OR)</p> <p>The different colours of balloons used for a stage decoration are given below. Represent the given data on a bar graph and answer the following questions:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Colour</th> <th>Red</th> <th>Green</th> <th>Blue</th> <th>Yellow</th> <th>Orange</th> </tr> </thead> <tbody> <tr> <td>Number of balloons</td> <td>40</td> <td>20</td> <td>55</td> <td>50</td> <td>35</td> </tr> </tbody> </table> <p>(i) Which is the most preferred colour? (ii) How many more Blue colour balloons are used than Orange colour balloons?</p>	Name of the Sport	Cricket	Badminton	Basketball	Football	Class VI	20	10	16	15	Class VII	16	13	14	12	Colour	Red	Green	Blue	Yellow	Orange	Number of balloons	40	20	55	50	35	5
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Class VII	16	13	14	12																									
Colour	Red	Green	Blue	Yellow	Orange																								
Number of balloons	40	20	55	50	35																								
33.	<p>The length of a rectangular field is twice its breadth. If the perimeter of the field is 228 m.</p> <p>(i) Find Length and breadth of the field. (ii) Find the perimeter of the rectangular field if the breadth remains same and the length is increased by 2 meters.</p> <p align="center">(OR)</p> <p>Write statements for the following equations and solve:</p> <p>(i) $\frac{3z-5}{2} = 14$ (ii) $4(m + 3) = 16$</p>	5																											

34. In the given figure line 'l' is parallel to line 'm' ($l \parallel m$) and 'p' is a transversal. If $\angle 2 = 50^\circ$, find the measure of the remaining angles and also give the reason for each angle.



5

35. Name the property of integers used in each of the following:

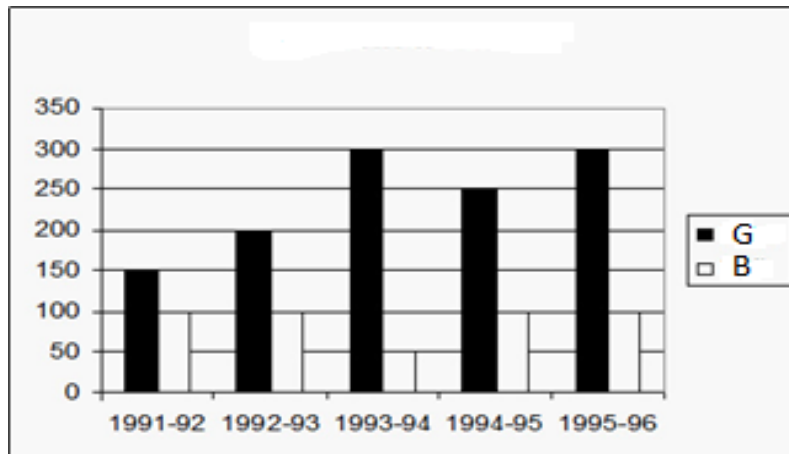
- (a) $(-6) \times 5 = (-30)$
 (b) $5 + (-3) = (-3) + 5$
 (c) $(-5) + (3 + 2) = (-5 + 3) + 2$
 (d) $16 \times (10 + 2) = (16 \times 10) + (16 \times 2)$
 (e) $-19 \times 1 = -19$

5

SECTION E

[This section comprises of 3 case based integrated unit of assessment of 4 marks each with sub-parts. The first two case study questions have three sub parts (i), (ii) (iii) of marks 1,1,2 respectively. The third part (iii) has internal choice. The third case study question has two sub parts (i),(ii) of 2 marks each]

36. Study the following graph carefully and answer the questions that follow. The graph shows the number of boys and girls of class VI in a school.



- (i) How many boys are there in the academic year 1991-92?
 (ii) In how many years number of girls is the same?
 (iii) In which year the difference of number of boys to the number of girls is minimum and by how much?

1

1

2

(OR)

- (iii) In which year the difference of number of girls to the number of boys is maximum and by how much?

37. Study the following table carefully which shows the account of a shopkeeper profit and loss from the sale of certain items and answer the questions that follow.

Name of Items	Profit (₹)	Loss (₹)
Mustard oil	150	
Rice		250
Black pepper	225	
Wheat	200	
Groundnut oil		330

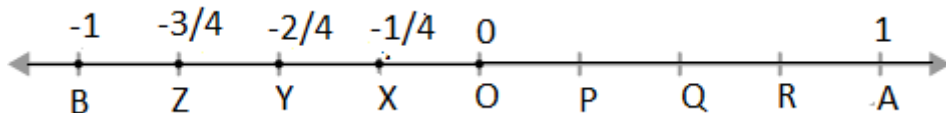
- (i) Write the amount of profit for mustard oil with appropriate sign.
 (ii) Write the amount of loss for groundnut oil with appropriate sign.
 Find profit or loss from the sale of above listed items and by how much?

(OR)

- (iii) Arrange the items in ascending order according to the amount of profit or loss.

1
1
2

38. A quiz is conducted for 9 students in a class and Priya has recorded their scores as rational numbers and represented on a number line. Observe the following number line and answer the questions that follow.



- (i) Find the sum of scores of students R and B.
 (ii) Find the value of $(Q + Y) \div (Q - Y)$

2
2

****THE END****