


Class VII
Mid Term Exam (2023-24)
Subject : Mathematics
Set A2

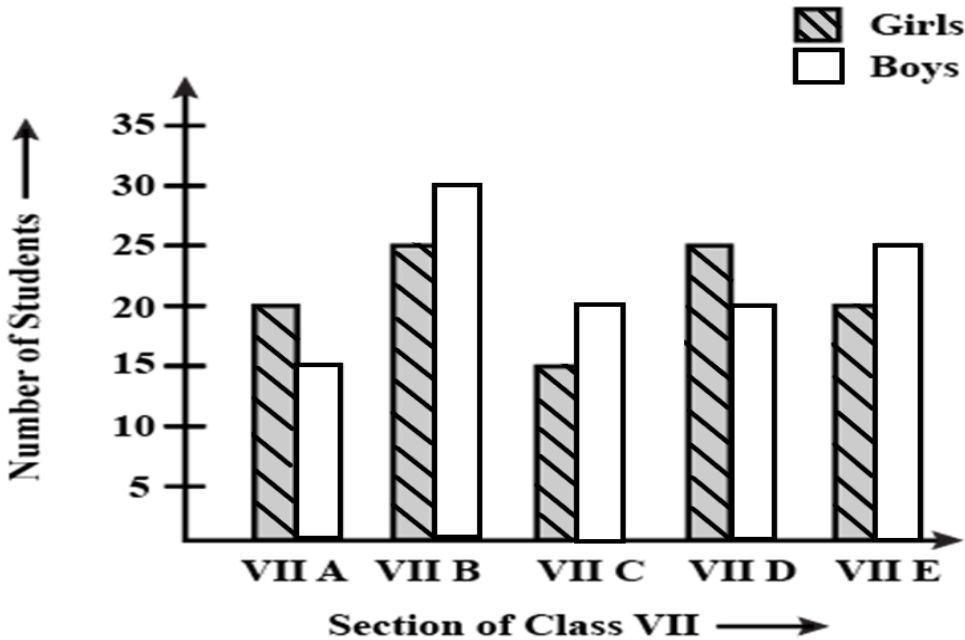
Time Allowed : 2 ½ Hours**Max. Marks : 60**

General Instructions:

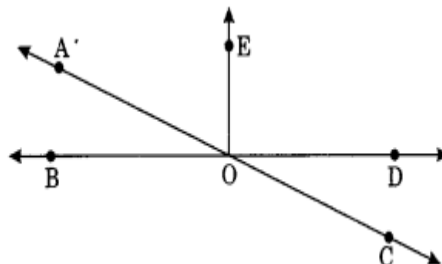
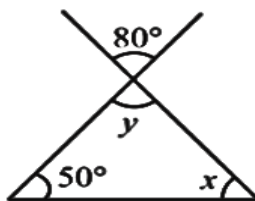
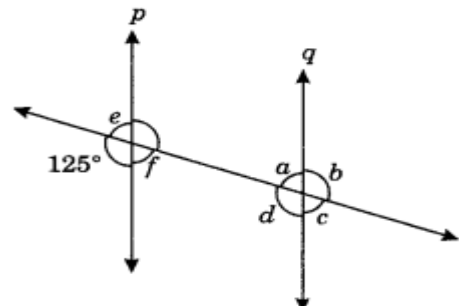
1. The question paper consists of 18 questions divided into 3 sections A, B and C.
2. Section A has 3 questions. Q1 comprises of 8 parts of 1 mark each. Q2 and Q3 are case studies which comprises of 5 parts of 2 marks each (any four to be attempted).
3. Section B has 6 questions. Q4 - Q5 are of 4 marks each, Q6-Q9 are of 1 mark each.
4. Section C has 9 questions. Q10-Q14 are of 2 marks each, Q15-Q16 are of 3 marks each and Q17-Q18 are of 4 marks each.

Section A		
Q. No.		Marks
	Question 1 has 8 multiple choice sub-parts. Choose the correct answer from (i) to (viii). Each sub-part is of 1 mark.	
1. (i)	How many altitudes does a triangle have? a) 1 b) 3 c) 6 d) 9	8 x 1
(ii)	In ΔABC , a) $AB + BC > AC$ b) $AB + BC < AC$ c) $AB + AC < BC$ d) $AC + BC < AB$	
(iii)	Which of the following pair of angles are supplementary? a) $48^\circ, 42^\circ$ b) $60^\circ, 60^\circ$ c) $75^\circ, 105^\circ$ d) $179^\circ, 2^\circ$	
(iv)	The equation for 'If you take away 6 from 6 times y, you get 60' is a) $6 - 6y = 60$ b) $6y - 6 = 60$ c) $6 = 6y + 60$ d) $6 + 6y = 60$	
(v)	Shifting one term from one side of an equation to another side with a change of sign is known as a) commutativity b) transposition c) distributivity d) associativity	
(vi)	The median of the data: 3, 4, 4, 6, 7, 3, 4 is a) 4 b) 3 c) 7 d) 6	

(vii)	Reciprocal of $\frac{2}{3}$ is a) $\frac{2}{3}$ b) $-\frac{2}{3}$ c) $\frac{3}{2}$ d) -1	
(viii)	Which of the following is the multiplicative identity for an integer a ? a) a b) 1 c) 0 d) -1	
	Q 2 and Q 3 are Case Study Based questions and each case study based question has 5 sub-parts. You have to attempt only 4 sub-parts out of these 5 sub-parts. Each sub-part is of 2 marks.	
2.	<p>On the occasion of Diwali ,Reshma and Rohan bought apples and sweets . Reshma purchased 56.5kg sweets at the rate of Rs 8 per kg. Rohan purchased 25.75 kg apples at the rate of Rs 100 per kg.</p>  <p>i) Money to be paid by Reshma for sweets is a) Rs 565 b) Rs 45.2 c) Rs 452 d) Rs 5650</p> <p>ii) Money to be paid by Rohan for apples is a) Rs 257.5 b) Rs 25.75 c) Rs 25750 d) Rs 2575</p> <p>iii) Reshma distributed sweets to 10 of her neighbours. Sweets received by each neighbour is a) 0.565kg b) 5.65kg c) 0.0565kg d) 56.05kg</p> <p>iv) Rohan distributed apples to 5 of his friends.Apples received by each friend is a) 5.15kg b) 2.575kg c) 5.65kg d) 0.2575kg</p> <p>v) To divide a decimal number by 1000, shift the digits in the decimal number a) to the right by as many places as there are zeros over 1, to get the quotient. b) to the right by as many places as there are in the divisor, to get the quotient c) to the left by as many places as there are zeros over 1, to get the remainder d) to the left by as many places as there are zeros over 1, to get the quotient</p>	4 x 2

3.	<p>In S. S. Public School, number of students enrolled in different sections of class VII are shown in the double bar graph given below. Study the double bar graph and answer the questions that follow.</p>  <p>i) The total number of boys in section A, B, C of Class VII is a) 60 b) 65 c) 85 d) 80</p> <p>ii) In which sections, the number of girls is greater than the number of boys? a) A and B b) B c) C d) D and A</p> <p>iii) In which section, the number of boys is the maximum? a) A b) B c) C d) D</p> <p>iv) In which section, the number of girls is the least? a) A b) B c) C d) D</p> <p>v) Mean of number of girls and boys of class VII A is a) 35 b) 17.5 c) 25 d) 20</p>	4 x 2
	Section B	
4.	<p>Fill in the blanks :</p> <p>(i) $(-8) + (-8) + (-8) = \underline{\hspace{2cm}} \times (-8)$</p> <p>(ii) $113 \div \underline{\hspace{2cm}} = -1$</p> <p>(iii) If $x - \frac{1}{2} = -\frac{1}{2}$ then $x = \underline{\hspace{2cm}}$.</p> <p>(iv) A <u> </u> takes on different numerical values, its value is not fixed.</p>	4 x 1

5.	Match the following:	4 x 1										
	<table><tr><th>Type of angles</th><th>Measure</th></tr><tr><td>(i) In a triangle, exterior angle is</td><td>(a) longest side</td></tr><tr><td>(ii) In a right triangle, hypotenuse is</td><td>(b) are equal</td></tr><tr><td>(iii) supplementary angles</td><td>(c) sum of interior opposite angles</td></tr><tr><td>(iv) vertically opposite angles</td><td>(d) sum is 180^0</td></tr></table>	Type of angles	Measure	(i) In a triangle, exterior angle is	(a) longest side	(ii) In a right triangle, hypotenuse is	(b) are equal	(iii) supplementary angles	(c) sum of interior opposite angles	(iv) vertically opposite angles	(d) sum is 180^0	
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	Question 6 to 9 are Very Short Answer type questions carrying one mark each.	4 x 1										
6	Suppose two lines are given. How many transversals can you draw for these lines?											
7.	Write the following equation in the statement form: $2x + 3 = 8$											
8.	Multiply : $\frac{2}{5} \times 5\frac{1}{4}$											
9.	State True or False : Mean of the data is always from the given data.											
	Section C											
	Question 10 to 14 carry two marks each.	5x2										
10.	Solve for x : $-2(x + 3) = 10$	2										
11	In a class test containing 20 questions, (+ 4) marks are given for every correct answer and (–1) marks are given for every incorrect answer and no marks for not attempting any question. Rohan gets four correct and six incorrect answers. What is his score?	2										
12.	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?	2										

13.	<p>In the given figure, name the following pair of angles.</p> <p>(i) Obtuse vertically opposite angles</p> <p>(ii) Adjacent complementary angles</p> 	2																		
14.	<p>Find the values of the unknowns x and y in the given diagram.</p> 	2																		
	Question 15 and 16 carry three marks each.	2x3																		
15.	<p>In the adjoining figure, $p \parallel q$. Find the unknown angles b, a, e.</p> 	3																		
16.	<p>Using an appropriate property, verify</p> $(-25) \times [(-7) - (-1)] = (-25) \times (-7) - (-25) \times (-1)$	3																		
	Question 17 and 18 carry four marks each.	2x4																		
17.	<p>Consider this data collected from a survey of a colony. Draw a double bar graph choosing an appropriate scale.</p> <table border="1" data-bbox="380 1572 1110 1740"><tr><th>Days</th><th>Mon</th><th>Tues</th><th>Wed</th><th>Thurs</th><th>Fri</th></tr><tr><td>Newspaper Readers</td><td>400</td><td>600</td><td>350</td><td>550</td><td>500</td></tr><tr><td>Magazine Readers</td><td>150</td><td>100</td><td>200</td><td>300</td><td>250</td></tr></table>	Days	Mon	Tues	Wed	Thurs	Fri	Newspaper Readers	400	600	350	550	500	Magazine Readers	150	100	200	300	250	4
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Newspaper Readers	400	600	350	550	500															
Magazine Readers	150	100	200	300	250															
18.	<p>Find the perimeter of the rectangle whose length is 12 cm and a diagonal is 13 cm.</p>	4																		