

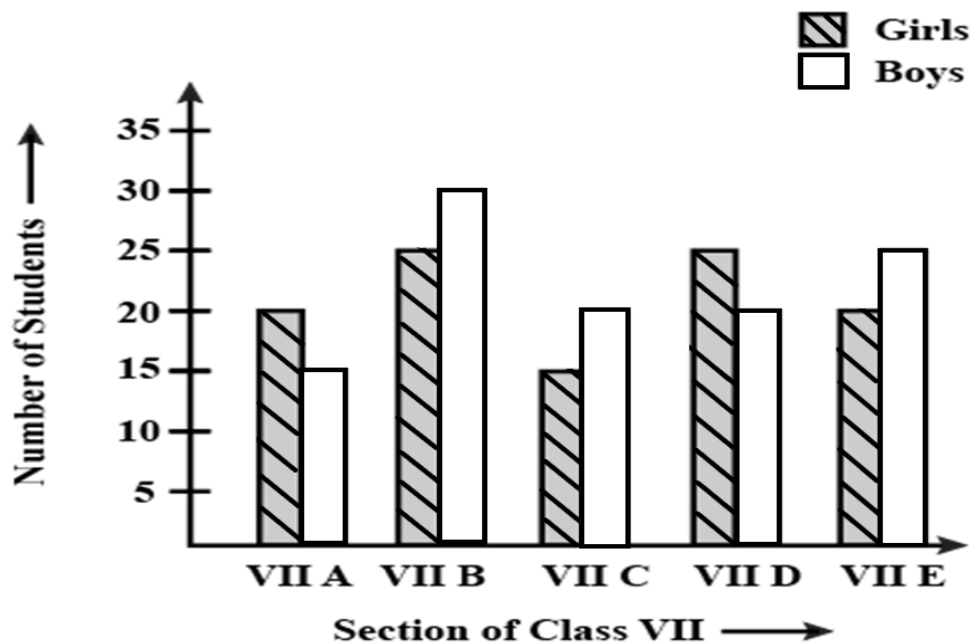
Class VII
Mid Term Exam (2023-24)
Subject : Mathematics
Set A1

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)	Which of the following is the multiplicative identity for an integer a ? a) a b) 1 c) 0 d) - 1	8 x 1
(ii)	Reciprocal of $\frac{2}{3}$ is a) $\frac{2}{3}$ b) $-\frac{2}{3}$ c) $\frac{3}{2}$ d) -1	
(iii)	The median of the data: 3, 4, 4, 6, 7, 3, 4 is a) 4 b) 3 c) 7 d) 6	
(iv)	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	
(v)	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) $6 + 6y = 60$	
(vi)	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) $179^\circ, 2^\circ$	



- i) The total number of boys in section A, B, C of Class VII is
 - a) 60
 - b) 65
 - c) 85
 - d) 80
- 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
- iii) In which section, the number of boys is the maximum?
 - a) A
 - b) B
 - c) C
 - d) D
- iv) In which section, the number of girls is the least?
 - a) A
 - b) B
 - c) C
 - d) D
- v) Mean of number of girls and boys of class VII A is
 - a) 35
 - b) 17.5
 - c) 25
 - d) 20

Section B

4.

Fill in the blanks :

(i) $(-8) + (-8) + (-8) = \underline{\hspace{2cm}} \times (-8)$

(ii) $113 \div \underline{\hspace{2cm}} = -1$

(iii) If $x - \frac{1}{2} = -\frac{1}{2}$ then $x = \underline{\hspace{2cm}}$.

(iv) A variable takes on different numerical values, its value is not fixed.

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	Multiply : $\frac{2}{5} \times 5\frac{1}{4}$	1										
7.	Write the following equation in the statement form: $2x + 3 = 7$	1										
8.	Suppose two lines are given. How many transversals can you draw for these lines?	1										
9.	State True or False : Mean of the data is always from the given data.	1										
	Section C											
	Question 10 to 14 carry two marks each.	5x2										
10.	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										
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.	Solve for x : $-2(x + 3) = 8$	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>Using an appropriate property, verify</p> $(-15) \times [(-7) - (-1)] = (-15) \times (-7) - (-15) \times (-1)$		3																		
16.	<p>In the adjoining figure, $p \parallel q$. Find the unknown angles b, a, e.</p>		3																		
Question 17 and 18 carry four marks each.			2x4																		
17.	<p>Find the perimeter of the rectangle whose length is 12 cm and a diagonal is 13 cm.</p>		4																		
18.	<p>Consider this data collected from a survey of a colony. Draw a double bar graph choosing an appropriate scale.</p> <table border="1"><thead><tr><th>Days</th><th>Mon</th><th>Tues</th><th>Wed</th><th>Thurs</th><th>Fri</th></tr></thead><tbody><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></tbody></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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