



INDIAN SCHOOL AL WADI AL KABIR

Mid Term Examination (2025-26)

Class: VII

Sub: MATHEMATICS

Max Marks: 80

Date: 21-09-2025

Set- I -Marking Scheme

Time: $2\frac{1}{2}$ hours

General Instructions:

1. This question paper contains 4 sections, Sections A to D
2. All questions are compulsory.
3. Section A has 20 questions carrying 1 mark each.
4. Section B has 5 questions carrying 2 marks each.
5. Section C has 6 questions carrying 3 marks each.
6. Section D has 8 questions carrying 4 marks each.
7. This question paper contains **6** pages.

Section A: Multiple Choice Question (Q.1 to Q.15) of **1** mark each

- 1.** The runs scored in a cricket match by 11 players is as follows:
6, 15, 120, 50, 100, 80, 10, 15, 8, 10, 15. The range of this data is:

A

B

C

114

D

- 2.** Which of the following pairs of numbers make a sum of (-10)

A

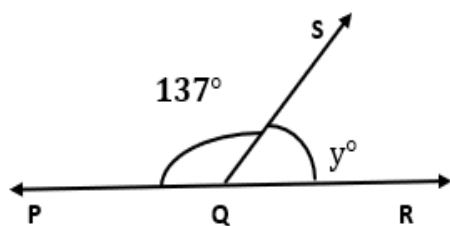
$(-15, 5)$

B

C

D

- 3.** In the adjoining figure, the value of 'y' = _____.



A

B

43°

C

D

- 4.** $\frac{1}{\square} \times \frac{3}{4} = \frac{3}{20}$. Find the missing number.

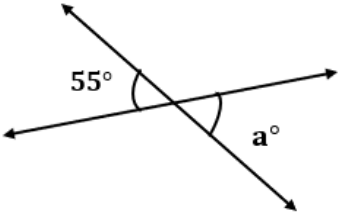
A

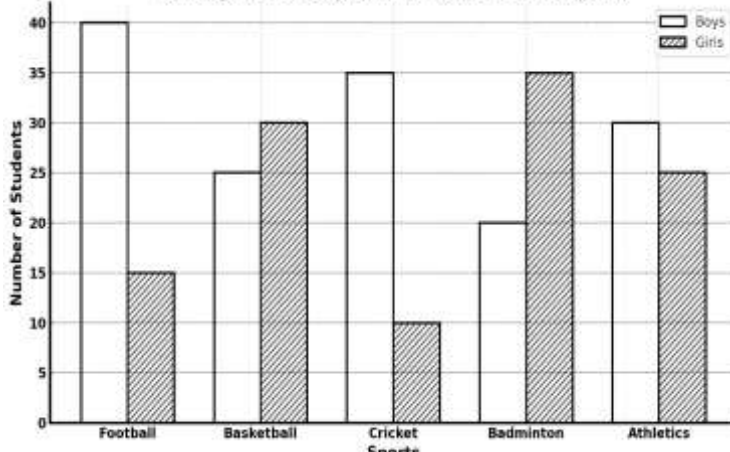
B

C

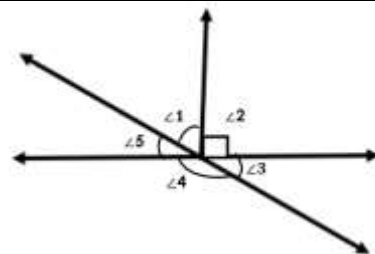
5

D

5.	Identify the equation with a variable in the following:							
	A		B		C	$3a + 1 = 14$	D	
6.	$5675.3 \div 1000 = \underline{\hspace{2cm}}$.							
	A		B	5.6753	C		D	
7.	The value of "n" in the equation $7n + 5 = 19$							
	A		B		C		D	2
8.	If two angles are complementary, then the sum of their measures is _____.							
	A	90°	B		C		D	
9.	Name the property: $-13 \times (-15 \times 12) = (-13 \times -15) \times 12$							
	A		B	Associative property	C		D	
10.	The value of 'a' in the given figure is:							
								
	A		B		C	55°	D	
11.	The marks (out of 100) obtained by a group of students in a mathematics test are 85, 76, 90, 85, 95, 81 and 75. The median of the marks obtained is:							
	A		B	85	C		D	
12.	Which of the following pairs of angles are supplementary?							
	A		B		C	110° and 70°	D	
13.	$96 \div (-3) = \underline{\hspace{2cm}}$.							
	A		B	-32	C		D	

14.	An equation for “The sum of three times a number and 17 is 62”																								
	A		B		C	D	$3x + 17 = 62$																		
15.	$(-25) \times 0 \times (-18) = \underline{\hspace{2cm}}$.																								
	A		B		C	D	0																		
16.	Source based Question (5 Marks): A school conducted a sport meet in which the number of students who participated in various events is given. Observe the graph and answer the following questions:			Participation of Boys and Girls in Different Sports  <table><thead><tr><th>Sports</th><th>Boys</th><th>Girls</th></tr></thead><tbody><tr><td>Football</td><td>40</td><td>15</td></tr><tr><td>Basketball</td><td>25</td><td>30</td></tr><tr><td>Cricket</td><td>35</td><td>10</td></tr><tr><td>Badminton</td><td>20</td><td>35</td></tr><tr><td>Athletics</td><td>30</td><td>25</td></tr></tbody></table>				Sports	Boys	Girls	Football	40	15	Basketball	25	30	Cricket	35	10	Badminton	20	35	Athletics	30	25
Sports	Boys	Girls																							
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Athletics	30	25																							
I	Which sport had the highest number of boys participating?																								
	A		B		C	D	Foot ball																		
II	What is the total number of students who participated in athletics?																								
	A		B		C	D	55																		
III	Which sport had the highest number of girls participating?																								
	A		B		C	D	Badminton																		
IV	How many more girls than boys participated in basketball?																								
	A		B		C	D	5																		
V	How many students in all took part in the sports meet?																								
	A		B		C	D	265																		
Section B: Short Answer Questions (Type – 1) of 2 marks each (Q.17 to Q.21)																									
17.	Solve: $3x + 12 = 54$																								

Ans:	$3x = 54 - 12 \text{-----} \frac{1}{2} \text{ marks}$ $3x = 42 \text{-----} \frac{1}{2} \text{ marks}$ $x = \frac{42}{3} \text{-----} \frac{1}{2} \text{ marks}$ $x = 14 \text{-----} \frac{1}{2} \text{ marks}$
18.	A player got the following points in a game: (-5) , 75 , (-50) and 15 . What is the final score of the player?
Ans:	$(-5), 75, (-50) \text{ and } 15$ $\{(-5) + (-50)\} + \{75 + 15\} \text{-----} \frac{1}{2} \text{ marks}$ $\{(-55)\} + \{90\} \text{-----} 1 \text{ mark}$ $= 35 \text{-----} \frac{1}{2} \text{ marks}$
19.	Babu purchased 4.5 kg of sugar at the rate of ₹ 24 per kg. How much money should he pay?
Ans:	Amount of sugar= 4.5 kg ----- $\frac{1}{2}$ marks Cost per kg=₹ 24 Amount to pay= ₹ 24×4.5 kg ----- 1 mark $= ₹ 108 \text{-----} \frac{1}{2} \text{ marks}$
20.	Heights (in cm) of 5 children are given as follows: $156, 137, 163, 150, 144$. What is the mean of their heights?
Ans:	Mean= $\frac{\text{Sum of all observation}}{\text{total number of observation}} \text{-----} \frac{1}{2} \text{ marks}$ $= \frac{156 + 137 + 163 + 150 + 144}{5} \text{-----} \frac{1}{2} \text{ marks}$ $= \frac{750}{5} \text{-----} \frac{1}{2} \text{ marks}$ $= 150 \text{-----} \frac{1}{2} \text{ marks}$
21.	In the adjoining figure, a) Name one pair of adjacent complementary angles b) If the measure of $\angle 4 = 160^\circ$, then the measure of $\angle 3 = \underline{\hspace{2cm}}$.
Ans:	a) Adjacent complementary angles=$\angle 5$ and $\angle 1 \text{-----} 1 \text{ mark}$ b) $\angle 3 = 180 - 160 = 20^\circ \text{-----} 1 \text{ mark}$



Section C: Long Answer Questions (Type – 1) of **3** marks each (Q.22 to Q.27)

- 22.** Following are the Shoe size of students in class VII. Prepare a frequency table for the data given. Also find the **mode** of the data:

7, 6, 8, 5, 7, 5, 6, 8, 5, 8,
8, 8, 5, 7, 8, 5, 7, 7, 8, 6,
8, 6, 5, 6, 8, 7, 7, 5, 8, 7
5, 6, 5, 8, 6, 8, 5, 8, 7, 8.

Ans:

Shoe Size	Tally Marks	Frequency
5		10
6		7
7		9
8		14

----- $2\frac{1}{2}$ marks

Mode= 8(14 times) ----- $\frac{1}{2}$ marks

- 23** Verify the following: $30 \times [13 + (-3)] = [30 \times 13] + [30 \times (-3)]$

Ans

$$\text{LHS} = 30 \times [13 + (-3)]$$

$$= 30 \times [10] = 300 \text{ -----} 1\frac{1}{2} \text{ marks}$$

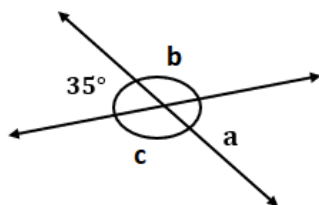
$$\text{RHS} = [30 \times 13] + [30 \times (-3)]$$

$$= [390] + [(-90)] = 300 \text{ -----} 1 \text{ marks}$$

$$\text{LHS} = \text{RHS}$$

Hence verified ----- $\frac{1}{2}$ marks

- 24.** Find the value of a , b and c from the given figure:



Ans:

$$a = 35^\circ \text{ -----} 1 \text{ marks}$$

$$b = 180 - 35^\circ = 145^\circ \text{ -----} 1 \text{ marks}$$

$$c = 145^\circ \text{ -----} 1 \text{ marks}$$

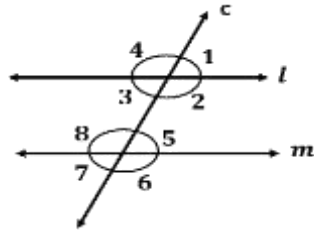
- 25.** Reshma uses $\frac{3}{4} m$ of cloth to stitch a shirt. How many shirts can she make with $2\frac{1}{4} m$ cloth?

Ans:

$$\text{Length of for one shirt} = \frac{3}{4} m$$

$$\text{Total length of cloth} = 2\frac{1}{4} m$$

$$\text{Number of shirts can be stitched} = 2\frac{1}{4} m \div \frac{3}{4} m \text{ -----} 1 \text{ marks}$$

	$= \frac{9}{4} m \div \frac{3}{4} m \text{ -----1marks}$ $= \frac{9}{4} \times \frac{4}{3} \text{ -----}\frac{1}{2}\text{marks}$ $= 3 \text{ shirts -----}\frac{1}{2}\text{marks}$
26.	A group of people visited the carnival, including both children and adults. If the number of children is taken as x, answer the following: (a) Write an expression for the statement: “The number of adults who visited the carnival is 5 more than twice the number of children.” (b) If the number of adults who visited the carnival is 275, find the number of children.
Ans:	Let the number of children = x -----$\frac{1}{2}$marks The number of adults = $2x+5$-----$\frac{1}{2}$marks Total number of adults =275-----$\frac{1}{2}$marks $(2x+5) = 275$ -----$\frac{1}{2}$marks $2x=270$-----$\frac{1}{2}$marks Number of children = $x=135$-----$\frac{1}{2}$marks
27.	State the property that is used in each of the following statements: i) If $l \parallel m$, then $\angle 1 = \angle 5$ ii) If $\angle 3 = \angle 5$ then, $l \parallel m$ iii) If $\angle 3 + \angle 8 = 180^\circ$ then, $l \parallel m$ 
Ans:	i) $\angle 1 = \angle 5$ Corresponding angles ii) $\angle 3 = \angle 5$ Alternative angles iii) $\angle 3 + \angle 8 = 180^\circ$ Co interior angles(Angles on the same side of the transversal)
Section D: Long Answer Questions (Type – 2) (Q.28 to Q.33) & Case study (Q.34 &35) of 4 marks each	
28.	The temperature at 12 noon was 10°C above zero. If it decreases at the rate of 2°C per hour until midnight. i) Draw temperature-time line and mark the points. ii) At what time would the temperature be 4°C below zero? iii) What would be the temperature at mid-night?
Ans:	i) Temperature-time line and mark the points. -----2marks ii) The temperature be 4°C below zero=At 7 pm -----1mark iii) The temperature at mid-night= (-14°C)-----1mark

29.	The table below shows the sales of bicycles in two different shops. Represent the data by drawing a double bar graph:					
		Sale of bicycles	April	May	June	July
		Shop A	800	650	900	700
		Shop B	600	800	500	950
Pair of bars-----1mark each						
30.	If $p \parallel q$, and 't' is a transversal, then find measures of the angles a, b, c, d, e and f .					
Ans:	$\angle a = 45^\circ$ $\angle d = 135^\circ$ -----2marks $\angle b = 135^\circ$ $\angle e = 135^\circ$ -----1mark $\angle c = 45^\circ$ $\angle f = 45^\circ$ -----1mark					
31.	Jimmy bought a land of length $15\frac{1}{3}m$ and breadth $6\frac{3}{5}m$. Find the area of the land. Also find the cost of leveling the land at the rate of ₹ 20 per square metre					
Ans:	$\text{Area of the land} = l \times b$ $\text{Area} = 15\frac{1}{3}m \times 6\frac{3}{5}m$ $\frac{46}{3} \times \frac{33}{5}$ -----1mark $\frac{46}{1} \times \frac{11}{5} = \frac{506}{5} \text{ sq.m}$ -----1mark $\text{Cost of levelling} = ₹ 20 \times \frac{506}{5} = 4 \times 506 = ₹ 2024$ -----2marks					
32.	Nina bought 7.5kg of tomatoes and 9.6kg pumpkin. Uma bought 3.250kg of cauliflower and potatoes 9.8kg. Who bought more vegetables and by how much?					
Ans:	Quantity of vegetables Nina bought= 7.5kg + 9.6kg =17.1kg-----1mark Quantity of vegetables Uma bought=3.250kg+9.8kg=13.05kg-----1mark Nina bought more vegetables. -----1mark 17.1kg–13.05kg=4.05kg-----1mark					
33.	Ravi went to a food stall. He spent some money for a pizza, ice- cream and a bottle of juice. If the cost of a bottle of juice is ‘₹ x’, answer the following questions:					

	a) Expression for statement: ‘The cost of a pizza is 50 more than three times of the cost of a bottle of juice’ is: b) Write an expression for: ‘The cost of an ice-cream is 2 times the cost of juice’ c) If the cost of one pizza ₹ 350, how much money he spent on the juice?
Ans:	Let the cost of juice = x a) Cost of a pizza = $3x + 50$-----1mark b) Cost of an ice-cream = $2x$-----1mark c) Cost of pizza = $3x + 50 = 350$-----$\frac{1}{2}$marks $3x = 350 - 50$-----$\frac{1}{2}$marks $3x = 300$-----$\frac{1}{2}$marks juice = $x = ₹100$ -----$\frac{1}{2}$marks
34.	Case Study-1 A magazine has 60 pages of which $\frac{7}{12}$ are for advertising, $\frac{4}{15}$ have only photographs on them and the rest are for articles and stories. a) How many pages have advertisement on them. b) Find the number of pages have photographs on them. c) How many pages have articles and stories on them. 
Ans:	a) Advertisement = $\frac{7}{12} \times 60 = 7 \times 5 = 35$ pages-----$1\frac{1}{2}$marks b) Photographs = $\frac{4}{15} \times 60 = 4 \times 4 = 16$ pages-----$1\frac{1}{2}$marks c) articles and stories = $60 - (35 + 16)$ -----$\frac{1}{2}$marks $= 60 - 51 = 9$-----$\frac{1}{2}$marks
35.	Case Study-2 Reesha and her family went to her grandmother’s house in a village for a holiday. After the lunch, they all sat together and started playing a game related to their ages using variables. At this context, answer the following questions: a) Reesha told, my father is 3 times as old as my brother. If the brother’s age is x years, the father’s age is: b) If my mother is 5 years younger than my father, then the mother’s age is: c) Reesha’s age is 5 years more than twice her brother’s age. If Reesha is 19 years old, find her brother’s age.  
Ans:	a) The father’s age = $3x$ years -----1marks b) The mother’s age is = $3x - 5$ years-----1marks c) Reesha’s age is, $2x + 5 = 19$ -----1marks Brothers age is, $2x = 19 - 5 = 14$ $x = 14 \div 2 = 7$ years -----1marks
