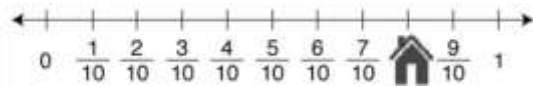
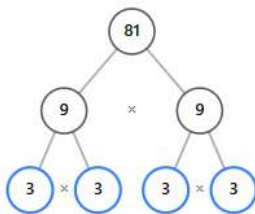




Indian School Al Wadi Al Kabir
Mid Term Examination (2026-27)

	SECTION A Multiple Choice Question (Q.1 to Q.15)											
1.	Meera is arranging prime numbers in ascending order. She starts with the smallest odd prime number. The number comes first is:						1M					
	A		B	3	C	D						
2.	The supercell in the given table is:						1M					
	<table><tr><td>2546</td><td>9878</td><td>6523</td><td>5448</td><td>2110</td></tr></table>						2546	9878	6523	5448	2110	
2546	9878	6523	5448	2110								
	A		B		C	D	9878					
3.	Choose the palindromic number.						1M					
	A	8118	B		C	D						
4.	The weight of the cake is $\frac{34}{14}$ kg. The lowest form of the fraction is:						1M					
	A		B	$\frac{17}{7}$	C	D						
5.	The tally mark  represents _____						1M					
	A		B		C	D	12					
6.	The fraction representing the position of the house is:						1M					
												
	A		B	$\frac{8}{10}$	C	D						
7.	The magic number 6174 is known as:						1M					
	A	Kaprekar constant	B		C	D						
8.	A pictograph represents data in the form of:						1M					
	A		B		C	Pictures	D					
9.	The prime factorisation of 54 is:						1M					
	A		B	$2 \times 3 \times 3 \times 3$	C	D						
10.	Choose the smallest 3 – digit number whose digit sum is 8.						1M					
	A		B		C	D	107					
11.	Meena ate $\frac{2}{6}$ of a pizza and Sara ate $\frac{3}{6}$ of the same pizza. Total fraction of the pizza they eat altogether is:						1M					
	A		B	$\frac{5}{6}$	C	D						
12.	The number divisible by both 3 and 9 is:						1M					

	A		B		C	216	D														
13.	For a Number Hunt Activity, students have to pick a pair of twin primes. The pair they selected is:								1M												
	A	(29,31)	B		C		D														
14.	For a Math activity, Neha writes multiples of 6 and multiples of 12. The number she writes in both groups is:								1M												
	A		B		C		D	48													
15.	Eight players shared 13 energy bars equally. The fraction of energy bar received by each is:								1M												
	A		B		C	$\frac{13}{8}$	D														
16.	Section B: Source based question(Q16) - 5 Marks																				
	The weather department recorded the rainfall in a city during five different months. The information is shown in the pictograph below. Study the pictograph carefully and answer the following questions.				<table><tr><th>Month</th><th>Rainfall (in mm)</th></tr><tr><td>June</td><td>    </td></tr><tr><td>July</td><td>     </td></tr><tr><td>August</td><td>  </td></tr><tr><td>September</td><td>      </td></tr><tr><td>October</td><td>   </td></tr></table> Key :  = 10 mm of rainfall				Month	Rainfall (in mm)	June	    	July	     	August	  	September	      	October	   	
Month	Rainfall (in mm)																				
June	    																				
July	     																				
August	  																				
September	      																				
October	   																				
I	In which month was the rainfall highest?								1M												
	A		B		C		D	September													
II	How much rainfall was recorded in July?								1M												
	A		B		C	60 mm	D														
III	The difference between the rainfall in June and August is:								1M												
	A		B	20 mm	C		D														
IV	The total rainfall recorded during the months August and October is:								1M												
	A	70 mm	B		C		D														
V	In which month was the rainfall lowest?								1M												
	A		D		C		D	August													
	Section B: Long Answer Questions (Q17 to Q22) – 2 marks each																				
17.	Write all the factors of 45 and 75. And find the common factors. Ans: Factors of 45 → 1, 3, 5, 9, 15, 45 ----- ($\frac{1}{2}$) Factors of 75 → 1, 3, 5, 15, 25, 75 -----($\frac{1}{2}$) Common Factors → 1, 3, 5, 15 -----(1)								2M												

18.	During a school art exhibition, $\frac{1}{10}$ of the paintings were landscapes, $\frac{2}{5}$ were portraits, and $\frac{5}{10}$ were abstract paintings. Arrange these fractions in ascending order. LCM = 10-----($\frac{1}{2}$) $\frac{2}{5} = \frac{4}{10}$ -----($\frac{1}{2}$) Ascending order: $\frac{1}{10}, \frac{2}{5}, \frac{5}{10}$ -----(1)	2M															
19.	Write any two palindromic time. 11:11, 10:01----- (1mark for each)	2M															
20.	Observe the given frequency distribution table and find the value of A and B. Ans: A is 4 -----(1) B is 10-----(1) <table border="1" data-bbox="965 571 1423 757"> <thead> <tr> <th>Age</th><th>Tally marks</th><th>Frequency</th></tr> </thead> <tbody> <tr> <td>14</td><td> </td><td>A</td></tr> <tr> <td>15</td><td> </td><td>8</td></tr> <tr> <td>16</td><td> </td><td>B</td></tr> <tr> <td>17</td><td> </td><td>3</td></tr> </tbody> </table>	Age	Tally marks	Frequency	14		A	15		8	16		B	17		3	2M
Age	Tally marks	Frequency															
14		A															
15		8															
16		B															
17		3															
21.	The prime factorisation of a number has two 2s, one 3 and one 5. Find the number. Number is $2 \times 2 \times 3 \times 5$ -----(1) $= 60$-----(1)	2M															
Section C: Long Answer Questions (Type – 1) of 3 marks each (Q.22 to Q.27)																	
22.	Draw the factor tree for 81.  First step ----(1) Second step -----(1+1)	3M															
23.	Form a Collatz sequence starting with 24 $24 \div 2 = 12$ $3 \times 3 + 1 = 10$ $12 \div 2 = 6$ $10 \div 2 = 5$ $6 \div 2 = 3$ $5 \times 3 + 1 = 16$ -----(1+1) $16 \div 2 = 8$ $8 \div 2 = 4$ So, the Collatz sequence starting with 24 is: $4 \div 2 = 2$ 24, 12, 6, 3, 10, 5, 16, 8, 4, 2, 1. -----($\frac{1}{2} + \frac{1}{2}$) $2 \div 2 = 1$	3M															
24.	Represent the following fractions on a number line: $\frac{1}{9}, \frac{5}{9}, \frac{7}{9}, 1$ Number line – 1M, Each fractions $\frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2}$	3M															
25.	A farmer has 45 animals. 20 are cows, 15 are goats, and the remaining animals are sheep. Find: i) The fraction of cows $= \frac{20}{45} = \frac{4}{9}$	3M															

- ii) The fraction of goats = $\frac{15}{45} = \frac{1}{3}$
 iii) The fraction of sheep = $\frac{10}{45} = \frac{2}{9}$ -----(1 + 1 + 1)

26. The following data shows the favourite musical instruments of 20 students:
 Draw a frequency distribution table using tally marks.

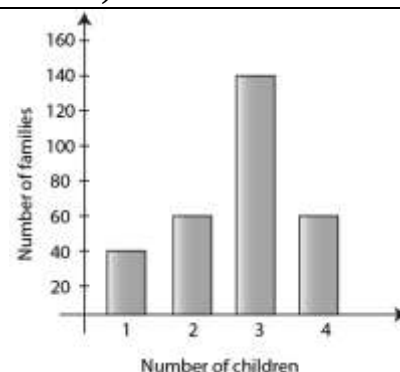
Guitar	Flute	Piano	Drums	Guitar
Piano	Drums	Guitar	Flute	Guitar
Drums	Guitar	Piano	Flute	Piano
Piano	Guitar	Drums	Guitar	Flute

Favourite instruments	Tally Marks	Frequency
Guitar		7
Flute		4
Piano		5
Drums		4

------(1 + 1 + 1)

27. Observe the bar graph and answer the following questions

- i. How many families have two children?
 60 -----(1)
 ii. How many families have three children?
 140------(1)
 iii. Find the total number of children in the village.
 $(1 \times 40) + (2 \times 60) + (3 \times 140) + (4 \times 60) = 820$
 -----(1)



Section D: Long Answer Questions (Type – 2) (Q.28 to Q.33)
 & Case study (Q.34 &35) of 4 marks each

28. The number of customers who came to a juice centre during one week is given in the table below. Make two different bar graphs to show this data.

Type of Juice	Mango	Pineapple	Orange	Apple
Number of Customer	50	100	70	30

------(Each bars carries 1M)

29. Three children are decorating a large cake. Anu decorates $\frac{2}{5}$ of the cake, Meera decorates $\frac{1}{4}$ of it, and Riya decorates $\frac{3}{10}$ of it.

1. Find the total part of the cake decorated by them.

LCM of 5, 4 and 10 is 20-----($\frac{1}{2}$)

$$\frac{2}{5} = \frac{8}{20}, \frac{1}{4} = \frac{5}{20}, \frac{3}{10} = \frac{6}{20} \text{-----} \left(\frac{1}{2}\right)$$

$$\frac{8}{20} + \frac{5}{20} + \frac{6}{20} = \frac{19}{20} \text{-----} \left(\frac{1}{2} + \frac{1}{2}\right)$$

2. Who decorated the greatest portion? Anu -----(1)

3. Who decorated the least portion? Meera -----(1)

30.

The table shows the number of bicycles sold by Ayush. Draw a pictograph using the scale  = 50 bicycles. (Each row carries 1M)

Month	Number of bicycles	
January	100	 
February	50	
March	150	  
April	200	   

4M

31.

Using prime factorisation, answer the following:

a) Check whether 84 and 25 are co-prime numbers. Show your working.

$$84 = 2 \times 2 \times 3 \times 7 \text{-----} (1)$$

$$25 = 5 \times 5 \text{-----} \left(\frac{1}{2}\right)$$

They have no common prime factor.

Therefore, 84 and 25 are co-prime

numbers. ----- $\left(\frac{1}{2}\right)$

b) Check whether 50 is divisible by 15. Show your working.

Prime factorisation:

$$50 = 2 \times 5 \times 5 \text{-----} (1)$$

$$15 = 3 \times 5 \text{-----} \left(\frac{1}{2}\right)$$

Since 3 is not a factor of 50, 15 cannot divide 50 exactly.

Therefore, 50 is not divisible by 15. ----- $\left(\frac{1}{2}\right)$

4M

32.

Meera is solving a Number Puzzle. She is given the digits 1, 2, 4, and 5 and must use each digit exactly once.

a) What is the greatest 4-digit number she can make? 5421 -----(1)

b) What is the smallest 4-digit number she can make? 1245 -----(1)

c) Starting with the greatest number, use the Kaprekar routine to reach 6174. (Show your working)

$$\text{Step 1} \rightarrow 5421 - 1245 = 4176 \text{-----} (1)$$

$$\text{Step 2} \rightarrow 7641 - 1467 = 6174 \text{-----} (1)$$

$$5421 \rightarrow 4176 \rightarrow 6174$$

4M

33.

A school is preparing kits for an educational trip. The number of items available in three categories is 5472, 6300 and 6848. The teacher wants to divide the items equally into groups of 2, 5, or 8.

a) Which numbers are divisible by 2?

5472, 6300 and 6848 -----(1)

b) Which numbers are divisible by 4? Justify your answer.

5472 $\rightarrow$ Not divisible by 5

6300 $\rightarrow$ 00 is divisible by 5

6848 $\rightarrow$ Not divisible by 5 ----- $\left(\frac{1}{2} + \frac{1}{2} + \frac{1}{2}\right)$

c) Which numbers are divisible by 8? Justify your answer.

4M

	5472 → 472 is divisible by 8 6300 → 300 is not divisible by 8 6848 → 848 is divisible by 8 -----($\frac{1}{2} + \frac{1}{2} + \frac{1}{2}$)	
34.	CASE STUDY -1:Cycling is a fun and healthy way to stay fit and active. To improve their fitness and enjoy the outdoors, three friends decided to go cycling around their neighborhood. Aisha cycled $1\frac{3}{4}$ km to the park, Zoya cycled $2\frac{1}{3}$ km to the library, Maya cycled $\frac{10}{4}$ km to the sports centre. a) Convert the distances travelled by Aisha and Zoya into improper fractions. Distance travelled by Aisha = $1\frac{3}{4} = \frac{7}{4}$ km-----($\frac{1}{2}$) Distance travelled by Zoya = $2\frac{1}{3} = \frac{7}{3}$ km -----($\frac{1}{2}$) b) Express the distances travelled by Aisha and Zoya as equivalent fractions with denominator 12. Equivalent fraction for distance travelled by Aisha is $\frac{21}{12}$ -----($\frac{1}{2}$) Equivalent fraction for distance travelled by Zoya is $\frac{28}{12}$ -----($\frac{1}{2}$) c) Calculate the total distance covered by the three friends. LCM of 4,3,4 is 12 -----($\frac{1}{2}$) $\frac{7}{4} + \frac{7}{3} + \frac{10}{4} = \frac{21 + 28 + 30}{12} = \frac{79}{12} = 6\frac{7}{12}$ km -----($1 + \frac{1}{2}$)	4M
35.	CASE STUDY – 2:During a birthday party, children sit in a circle and play a counting game. The first child says 1, the second says 2, and so on. When the number is a multiple of 4, the child says ‘Cake’ instead of the number. For multiples of 6, the child says ‘Candles’. If a number is a multiple of both 4 and 6, the child says ‘Cake-Candles’. (i) At what number will “Cake-Candles” be said for the first time? 12 -----(1) (ii) Find the next two numbers at which ‘Cake-Candles’ will be said. 24, 36 -----(1) (iii) List the first four multiples of 6. 6, 12, 18, 24 -----(1) (iv) Will the child say ‘Cake-Candles’ at 16? Give a reason. No, 16 is a multiple of 4 but not a multiple of 6 -----(1)	4M