

MINDATHON MATHEMATICS OLYMPIAD (MMO)

CLASS- V

SAMPLE PAPER (2024)

Time: 1 hour

Max Marks: 40

General Instructions:

- There are a total of 35 questions in this test.
- Read each question carefully and answer all of them.
- All the answers must be correctly marked in the OMR sheet provided to you.
- Questions (1-30) carry one mark. Questions in the Mindathon Challenger's Zone (31-35) are worth 2 marks each.

SECTION A

Logical Quest

1. How many different possible combinations of one colour pencil and one cap can be formed from 5 different coloured pencils and 6 different caps?

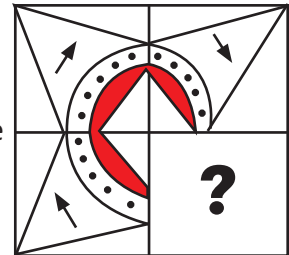


- (a) 22
 (b) 25
 (c) 36
 (d) 30
2. Rehan's final exam are starting from two days, before 3rd Wednesday of the August month in the year 2024. Which date is it?

AUGUST 2024						
SUN	MON	TUE	WED	THU	FRI	SAT
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

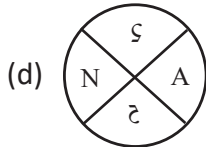
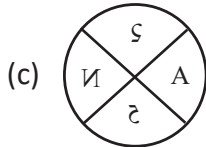
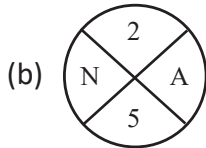
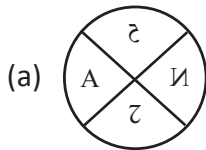
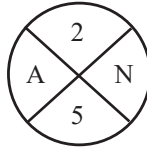
- (a) 19 August
 (b) 20 August
 (c) 23 August
 (d) 12 August

3. Which one of the following figure parts would complete the figure given below?



- (a)
- (b)
- (c)
- (d)

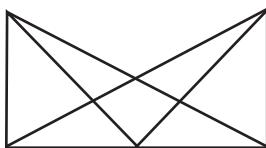
4. Find the mirror image of the given figure.



5. There is a group of 5 boys. Rahul is second in height, Amit is taller than Abhay and shorter than Rahul. Rakesh is the tallest. Prakash is shorter than Abhay. Now, who is shorter than Amit but taller than Prakash?

- (a) Rahul
- (b) Rakesh
- (c) Abhay
- (d) Both Rahul and Abhay

6. How many triangles are there in the given figure?



- (a) 12
- (b) 17
- (c) 18
- (d) 19

7. Pratima ranks 7th from the top and 26th from the bottom in a class. How many students are there in the class?

- (a) 33
- (b) 31
- (c) 35
- (d) 32

8. If 'Sugar' is called 'Book', 'Book' is called 'Salt' and 'Salt' called 'Sweet' then what do we read?

- (a) Sugar
- (b) Sweet
- (c) Book
- (d) Salt

9. Choose the correct option to complete the series.

12 V II U 9 T 6 S _____

- (a) 4
- (b) Q
- (c) 5
- (d) 2

10. Five girls are sitting in class for a group discussion, facing North. Preeti is to the left of Rekha and to the right of Shobha. Mansi is to the right of Rekha. Roma is between Rekha and Mansi. Who is second from the left?

- (a) Preeti
- (b) Rekha
- (c) Shobha
- (d) Mansi

[HINT: Arrangement is- Shobha, Preeti, Rekha, Roma, Mansi]

SECTION B
Reasoning and Aptitude

11. Round off the sum of 2687 and 4289 to nearest thousand?

- (a) 7,000
- (b) 6,000
- (c) 6,900
- (d) 6,976

12. If $\heartsuit + \heartsuit + \heartsuit = \spadesuit + \spadesuit$ and $\spadesuit - \heartsuit = 2$ then find the value of \heartsuit, \spadesuit .

- (a) 4, 6
- (b) 6, 4
- (c) 3, 4
- (d) 6, 8

13. What is the sum of the shaded part?



- (a) $\frac{41}{40}$
- (b) $\frac{31}{40}$
- (c) $\frac{35}{40}$
- (d) $\frac{92}{120}$

14. If $\frac{1}{5}$ of the whole = 30 mangoes then the whole means _____.



- (a) 600 mangoes
- (b) 150 mangoes
- (c) 300 mangoes
- (d) 450 mangoes

15. If $67.85 \times 2.9 = 196.765$ then what is 678.5×29 ?


- (a) 1967.65
- (b) 196.765
- (c) 1.96765
- (d) 19676.5

16. If  +  = 297.56

 -  = 165.32

Then find the value of  and .


(a)  = 124.56

 = 173


(b)  = 231.44

 = 66.12

(c)  = 156.44

 = 141.12

(d)  = 66.12

 = 231.44

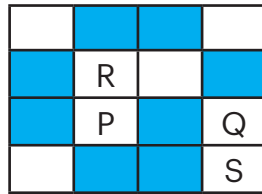
17. Tank A contains 6 times as much water as Tank B. How much water must Rohit transfer from Tank A to Tank B so that each Tank contains 70 liters of water?

- (a) 50 L
- (b) 60 L
- (c) 75 L
- (d) 120 L



18. A bucket is $\frac{3}{7}$ th filled with water and 20 liters of water is needed to fill the bucket to its brim. What is the capacity of the bucket?
- (a) 45 L
 (b) 20 L
 (c) 65 L
 (d) 35 L

19. Which square must be shaded so that the figure has a line of symmetry?



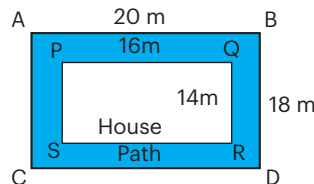
- (a) P
 (b) Q
 (c) R
 (d) S

20. How many rectangles can be drawn with 28 cm as perimeter given that the length of sides are positive integers.
- (a) 5
 (b) 6
 (c) 7
 (d) 8

SECTION C Mathematics in Action

21. Preeti has a rectangular floor of length 8m and breadth 6m. How many square tiles of side 2m can fit in it?
- (a) 10
 (b) 12
 (c) 14
 (d) 16

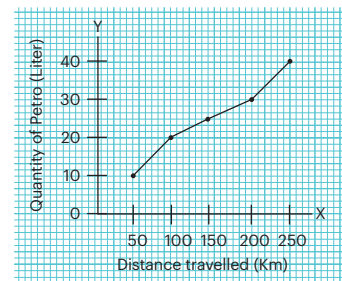
22. Jasmine has a 2m broad path, running around her house, which is 16m \times 14m, as shown in the figure.



Find the area of the path.

- (a) 162m²
 (b) 224m²
 (c) 126m²
 (d) 136m²
23. If 1 litre of petrol costs ₹85, then how much money did Dinesh spent in covering 250 km?

- (a) ₹2,500
 (b) ₹3,400
 (c) ₹3,200
 (d) ₹3,700



24. Manish spent two-fifth th of his salary. If his salary is ₹40,000 then find how much is left with him?

- (a) ₹24,000
- (b) ₹16,000
- (c) ₹22,000
- (d) ₹18,000

25. Arvind wants to make 25 fruit baskets, in which he wants a total of 195 apples, 160 oranges, 45 pamegranate to be packed equally. How many fruits are packed in each basket?

- (a) 12
- (b) 15
- (c) 16
- (d) 19

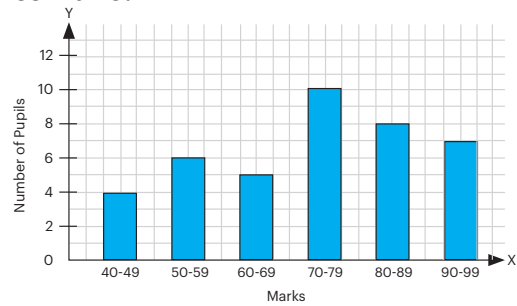
26. The population of a Town A is 24,75,350 and that of Town B is 2,485,350. Which Town has larger population?

- (a) Town A
- (b) Town B
- (c) Both have equal
- (d) Can't be compared

27. Mohit stands at a point facing towards North. If he turns by an angle of 270° clockwise, which direction will he face?

- (a) East
- (b) West
- (c) North
- (d) Wouth

28. What fraction of students scored below 60 marks?



- (a) $\frac{1}{5}$
- (b) $\frac{1}{4}$
- (c) $\frac{1}{3}$
- (d) $\frac{2}{5}$

29. Tanu had 12 kg 150 gm of rice. She consumed $\frac{1}{3}$ rd of it in a month. How much is left with her?

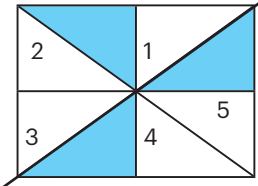
- (a) 7.9 kg
- (b) 4.05 kg
- (c) 8.10 kg
- (d) 7.5 kg

30. If the cost of 14.5 liters of oil is 1194.80, find the cost of 1 litre of oil.

- (a) 79.5
- (b) 78.2
- (c) 80
- (d) 82.4

SECTION D
Mindathon Challenger's Zone

31. The cost of tiling a rectangular floor is ₹3600 at the rate of ₹12 per m². If the length of this rectangular field is thrice the breadth, then find the length of the rectangle.
- (a) 26m
(b) 13m
(c) 10m
(d) 30m

32. Find the minimum number of triangle that must be shaded so that the given figure has a diagonal line of symmetry.
- 
- (a) 1
(b) 2
(c) 3
(d) 4

33. If # + ♣ + ♠ = 680, ♠ + ♥ = 470
♥ + # + ♣ = 650, Find the value of ♥.
- (a) 200
(b) 250
(c) 220
(d) 230

34. Find $1 + \frac{2}{1 + \frac{3}{1 + \frac{4}{5}}}$
- (a) $\frac{7}{4}$
(b) $\frac{4}{7}$
(c) $\frac{7}{5}$
(d) $\frac{3}{7}$

35. If $\frac{17.28 \div y}{3.6} \times 0.2 = 400$, then what is the value of y.
- (a) 0.24
(b) 0.024
(c) 2.4
(d) 0.0024



ANSWERS

1. D	2. A	3. D	4. D	5. C	6. B	7. D	8. D	9. D	10. A
11. A	12. A	13. B	14. B	15. D	16. B	17. A	18. D	19. B	20. B
21. B	22. D	23. B	24. A	25. C	26. B	27. B	28. B	29. C	30. D
31. D	32. C	33. C	34. A	35. D					





ANSWER SHEET
Mindathon Olympiad Foundation

Filling of all columns completely & accurately is compulsory

1. STUDENT NAME (IN ENGLISH CAPITAL LETTERS ONLY)

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IMPORTANT: PLEASE FILL IN SCHOOL CODE, CLASS & Registration NO. CORRECTLY FOR COMPUTATION OF RESULT.

PERSONAL DETAILS										
2. SCHOOL CODE					3. CLASS					
[]	[]	[]	[]	[]	[]	[]				
A	A	0	0	0	0	0				
B	B	1	1	1	1	1				
C	C	2	2	2	2	2				
D	D	3	3	3	3	3				
E	E	4	4	4	4	4				
F	F	5	5	5	5	5				
G	G	6	6	6	6	6				
H	H	7	7	7	7	7				
I	I	8	8	8	8	8				
J	J	9	9	9	9	9				

4. STUDENT REGISTRATION NUMBER									
Registration No. is the number found on your Admit Card. This is the same no. that was generated when you registered. (Write your Registration no. in the boxes and darken the circles)									
[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
A	A	0	0	0	0	1	1	1	1
B	B	1	1	1	1	2	2	2	2
C	C	2	2	2	2	3	3	3	3
D	D	3	3	3	3	4	4	4	4
E	E	4	4	4	4	5	5	5	5
F	F	5	5	5	5	6	6	6	6
G	G	6	6	6	6	7	7	7	7
H	H	7	7	7	7	8	8	8	8
I	I	8	8	8	8	9	9	9	9
J	J	9	9	9	9				
K	K								
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M	M								
N	N								
O	O								
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Q	Q								
R	R								
S	S								
T	T								
U	U								
V	V								
W	W								
X	X								
Y	Y								
Z	Z								



5. GENDER	
MALE	<input type="radio"/>
FEMALE	<input type="radio"/>

MARK YOUR ANSWERS				
1	(A)	(B)	(C)	(D)
2	(A)	(B)	(C)	(D)
3	(A)	(B)	(C)	(D)
4	(A)	(B)	(C)	(D)
5	(A)	(B)	(C)	(D)
6	(A)	(B)	(C)	(D)
7	(A)	(B)	(C)	(D)
8	(A)	(B)	(C)	(D)
9	(A)	(B)	(C)	(D)
10	(A)	(B)	(C)	(D)
11	(A)	(B)	(C)	(D)
12	(A)	(B)	(C)	(D)
13	(A)	(B)	(C)	(D)
14	(A)	(B)	(C)	(D)
15	(A)	(B)	(C)	(D)
16	(A)	(B)	(C)	(D)
17	(A)	(B)	(C)	(D)
18	(A)	(B)	(C)	(D)
19	(A)	(B)	(C)	(D)
20	(A)	(B)	(C)	(D)
21	(A)	(B)	(C)	(D)
22	(A)	(B)	(C)	(D)
23	(A)	(B)	(C)	(D)
24	(A)	(B)	(C)	(D)
25	(A)	(B)	(C)	(D)
THIS COLUMN IS FOR CLASSES 6 & ABOVE				
26	(A)	(B)	(C)	(D)
27	(A)	(B)	(C)	(D)
28	(A)	(B)	(C)	(D)
29	(A)	(B)	(C)	(D)
30	(A)	(B)	(C)	(D)
31	(A)	(B)	(C)	(D)
32	(A)	(B)	(C)	(D)
33	(A)	(B)	(C)	(D)
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35	(A)	(B)	(C)	(D)
36	(A)	(B)	(C)	(D)
37	(A)	(B)	(C)	(D)
38	(A)	(B)	(C)	(D)
39	(A)	(B)	(C)	(D)
40	(A)	(B)	(C)	(D)
41	(A)	(B)	(C)	(D)
42	(A)	(B)	(C)	(D)
43	(A)	(B)	(C)	(D)
44	(A)	(B)	(C)	(D)
45	(A)	(B)	(C)	(D)
46	(A)	(B)	(C)	(D)
47	(A)	(B)	(C)	(D)
48	(A)	(B)	(C)	(D)
49	(A)	(B)	(C)	(D)
50	(A)	(B)	(C)	(D)

Signature of the Student & Date of Examination

Signature of the Invigilator & Date of Examination