

MINDATHON MATHEMATICS OLYMPIAD (MMO)
CLASS- IV

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

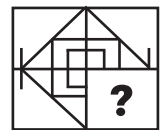
1. Study the pattern below and find out the missing number, if the same pattern is followed everywhere.

4	7	8	16	?	18
9	12	15	23	19	15

- (a) 22
(b) 20
(c) 18
(d) 15
2. Roma travels 2 km towards west, then she takes a right turn, again she travels 2 km in that direction and then takes a left turn. In which direction she will be facing now?
- (a) East
(b) West
(c) North
(d) South

3. If a clock is 45 minutes slow and the current time on the clock is 5:15 pm, then what is the actual time after half an hour?
- (a) 6:00 pm
(b) 6:30 pm
(c) 7:00 pm
(d) 5:30 pm

4. Which answer figure will complete the pattern in the question figure?



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

5. In a certain language, GOING is coded as IQKPI, then how is the word ALONG coded in that language?
 (a) CNQPI
 (b) BMPOH
 (c) DORQJ
 (d) GNOLA
6. If 'Sun' is called 'Blue', 'Blue' is called 'Moon' is called 'Rose' and 'Rose' is called 'Lizard', then the colour of the water is drawn as _____.
 (a) Blue
 (b) Moon
 (c) Rose
 (d) Lizard
7. A class of boys stand in a single line, one boy is 19th in order from both the ends. How many boys are there in the class?
 (a) 39
 (b) 27
 (c) 38
 (d) 37
8. In a certain code TREE is written as \$★22 and NOSE is written as %#62.

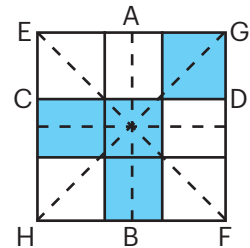
- How will TEN be written in that code?
 (a) \$2%
 (b) \$26
 (c) \$★%
 (d) \$6%

9. The cube shown here was cut into three pieces. Which of the following groups cannot be the three pieces of the cube?



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

10. Which of the following dotted lines represents the line of symmetry?
- (a) AB
 (b) CD
 (c) EF
 (d) GH

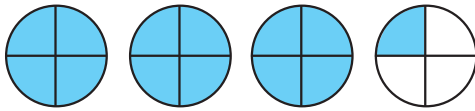


SECTION B

Reasoning and Aptitude

11. The successor of a number is 200 more than the successor of 480. Find the number.
 (a) 281
 (b) 481
 (c) 681
 (d) 680
12. If $2★ = 3♥$ and $★ + ★ + ★ = 18$, then find $★ + ♥$.
 (a) 12
 (b) 4
 (c) 6
 (d) 10

13. What is the fractional representation of the shaded part?

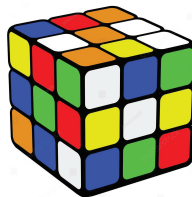


- (a) $3\frac{3}{4}$
 (b) $3\frac{1}{4}$
 (c) $3\frac{4}{1}$
 (d) $\frac{13}{16}$

14. If the day before yesterday was 30th May, then what is the date tomorrow?

- (a) 1st June
 (b) 3rd June
 (c) 2nd June
 (d) 31st May

15. How many cubes are needed to make a 3x3 magic cube?



- (a) 17
 (b) 12
 (c) 27
 (d) 18

16. If we interchange the place of symbols in the roman numeral CD, by how much value the numeral will increase?

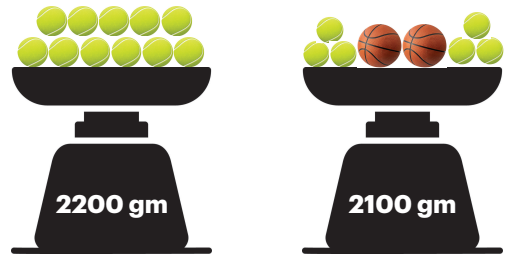
- (a) 50
 (b) 100
 (c) 200
 (d) 500

17. Find the value of P, Q, R in the given problem.

$$\begin{array}{r}
 \begin{array}{|c|c|c|c|}
 \hline
 2 & Q & 6 & P \\
 \hline
 \hline
 \hline
 \hline
 \hline
 \end{array} \\
 + \begin{array}{|c|c|c|c|}
 \hline
 R & 4 & 8 & 9 \\
 \hline
 \hline
 \hline
 \hline
 \hline
 \end{array} \\
 \hline
 \begin{array}{|c|c|c|c|}
 \hline
 7 & 6 & 5 & 5 \\
 \hline
 \hline
 \hline
 \hline
 \hline
 \end{array}
 \end{array}$$

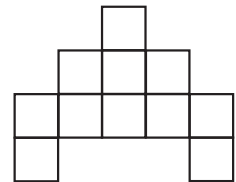
- (a) 5, 1, 6
 (b) 1, 6, 5
 (c) 6, 5, 1
 (d) 6, 1, 5

18. Weight of 11 cricket balls is 2 kg 200 gm and weight of 6 balls and 2 basket balls is 2 kg 100 gm. What is the weight of 1 basket ball?



- (a) 200 gms
 (b) 400 gms
 (c) 250 gms
 (d) 450 gms

19. Find the perimeter of the given figure, where all small units are squares of side 1 cm each.



- (a) 20 cm
 (b) 18 cm
 (c) 44 cm
 (d) 22 cm

20. The current time in India is 8 pm. What is the current time in Canada, if it is 9 hrs 30 min behind.

- (a) 10:30 pm
 (b) 10:30 am
 (c) 11:30 pm
 (d) 11:30 am

SECTION C
Mathematics in Action

21. Where should the symbol 'I' be placed in the Roman Numeral DCLXX so that it represents 669?

- (a) Between C and D
- (b) Between C and L
- (c) Between X and X
- (d) Between L and X

22. The cost of a laptop, after rounding off to hundred's place was ₹64,000. What could be the actual price of the laptop?

- (a) ₹63,899
- (b) ₹64,782
- (c) ₹64,035
- (d) ₹64,985

23. In a parking lot, presently 2,195 cars are parked. There



is capacity of total 3,540 cars in that parking lot. How many more cars can be parked there?

- (a) 1,534
- (b) 1,345
- (c) 2,345
- (d) 1,435

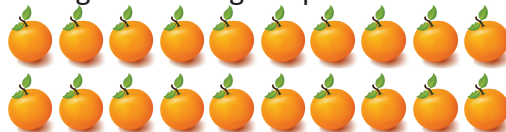
24. A blue line metro comes after every 10 min and a red line metro comes after every 4 min. If both the metros arrived together at 9 am, then minimum after how many minutes, both the metros arrive together again?



- (a) 40 min.
- (b) 10 min.
- (c) 15 min.
- (d) 20 min.

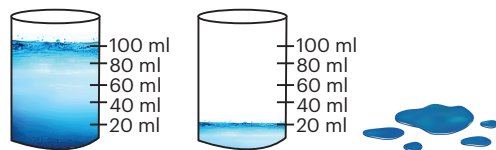
25. Mohit had 20 oranges. But $\frac{3}{5}$ of

oranges got spoiled. How many oranges are in a good position to eat.



- (a) 10 oranges
- (b) 15 oranges
- (c) 12 oranges
- (d) 8 oranges

26. A beaker had 100 ml of water. Some water got spilled and now only 20 ml of water is left. What fraction of water got spilled?



- (a) $\frac{80}{100}$
- (b) $\frac{20}{100}$
- (c) $\frac{10}{100}$
- (d) $\frac{20}{80}$

27. Ram wants to shade $\frac{2}{3}$ of flowers as red. How many flowers should he colour as red?

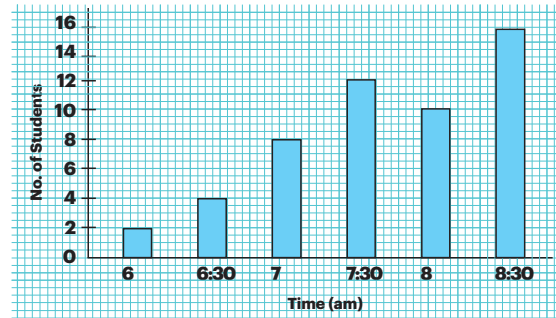


- (a) 10
 (b) 12
 (c) 18
 (d) 16
28. Rohan leaves for his office at half past eight in the morning and reaches at 9:50 am. How much time was taken by him?
 (a) 1 hr 10 min
 (b) 2 hr 20 min
 (c) 2 hr 10 min
 (d) 1 hr 20 min
29. Pinki walks around a square field of side 180 m while Rohan walks around squares a rectangular park of length

200m and breadth 150 m. Who walks more and by how much.

- (a) Pinki, 70 m
 (b) Pinki, 20 m
 (c) Rohan, 20 m
 (d) Rohan, 30 m

30. How many students wake up before 7:30 am?



- (a) 12
 (b) 14
 (c) 10
 (d) 26

SECTION D

Mindathon Challenger's Zone

31. A wire is bent to form a triangle of side 8 cm each. Then it is rebent to form a square. What is the side of the square hence formed?
 (a) 10 cm
 (b) 16 cm
 (c) 6 cm
 (d) 8cm
32. Keshav wants to plant trees, on one side of the road, after every 50 m. If the whole road is 800 m long, then how

many trees were planted, assuming that both at the beginning and at the end of the road, a tree was planted?



- (a) 17
 (b) 16
 (c) 15
 (d) 18

33. Find the value of '*' and '⊗' if

$$* + * = \otimes$$

$$\otimes \otimes \otimes = 1$$

(a) $* = \frac{1}{4}$ $\otimes = \frac{1}{2}$

(b) $* = \frac{1}{3}$ $\otimes = \frac{1}{2}$

(c) $* = \frac{1}{6}$ $\otimes = \frac{1}{3}$

(d) $* = \frac{1}{2}$ $\otimes = \frac{1}{3}$

34. Ramit and Arjun jointly won 30 pens in a game. But they did not divide the pens equally between themselves. Ramit keeps 10 pens and Arjun keeps 20 pens. In return, Arjun pays Ramit ₹80. What is the cost of each pen?

(a) ₹10

(b) ₹16

(c) ₹8

(d) ₹15

35. There are 32 beads on a string. If three-fourth of the total beads are white, 2 are red and the rest are golden. What fraction of the beads are golden?

(a) $\frac{3}{16}$

(b) $\frac{1}{4}$

(c) $\frac{8}{32}$

(d) $\frac{30}{32}$



ANSWERS

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



