

DO NOT OPEN THIS BOOKLET UNTIL ASKED TO DO SO

Name:.....

Arifinkidz Roll No:.....

Total Questions: 50

Time: 1hr



## Arifinkidz Summer Mathematics Olympiad 2023

CLASS

6

SET-A

### Guidelines for the Candidate

- You will get additional 5 minutes to fill up information about yourself on the OMR Sheet, before the start of the exam.
- Write your **Name, School** and **Arifinkidz Roll No.** clearly on the OMR Sheet.
- The Question Paper comprises four sections:  
**Logical Reasoning** (15 Questions), **Mathematical Reasoning** (20 Questions), **Everyday Mathematics** (10 Questions) and **Achievers Section** (5 Questions).  
Each question in Achiever Section carries 3 marks, whereas all other questions carry one mark each.
- All questions are compulsory. There is no negative (-) marking.
- All questions are (MCQ) types. There is only ONE correct answer. Choose only ONE option for an answer.
- To mark your choice of answer by darkening the circles on the OMR Sheet, Use **HB Pencil** or **Blue/Black ball point pen** only. E.g.

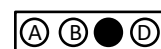
**Question:** Riya has 35 roses, which are 12 more than the number of roses Radhika has. How many roses Radhika has?

A. 20

B. 15

C. 23

D. 22



As the correct answer is option C, you must darken the circle corresponding to option C on the OMR Sheet.

- Rough work should be done in the blank space provided in the booklet.
- Return the OMR Sheet to the invigilator at the end of the exam.

## LOGICAL REASONING

1. ELFA, GLHA, ILJA, \_\_\_\_\_, MLNA  
 (A) KLLA                      (B) LLMA                      (C) OLPA                      (D) KLMA

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2. 22, 21, 23, 22, 24, 23, \_\_\_\_\_  
 (A) 26                      (B) 25                      (C) 22                      (D) 24

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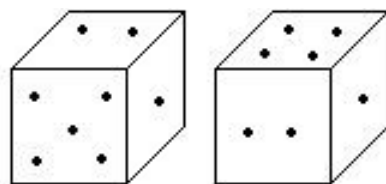
3. 664, 332, 340, 170, \_\_\_\_\_, 89  
 (A) 109                      (B) 85                      (C) 178                      (D) 97

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4. In a row of girls, Kamyra is fifth from the left and Preeti is sixth from the right. When they exchange their positions, then Kamyra becomes thirteenth from the left. What will be Preeti's position from the right?  
 (A) 7th                      (B) 11th                      (C) 14th                      (D) 18th

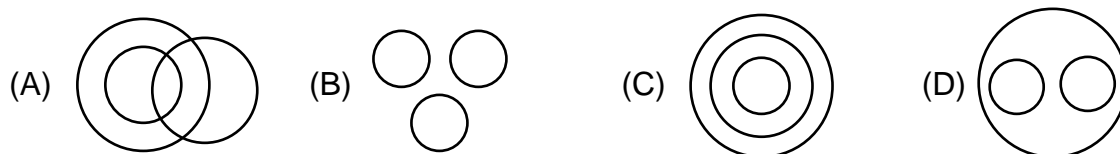
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5. Two positions of dice are shown below. How many points will appear on the opposite to the face containing 5 points?



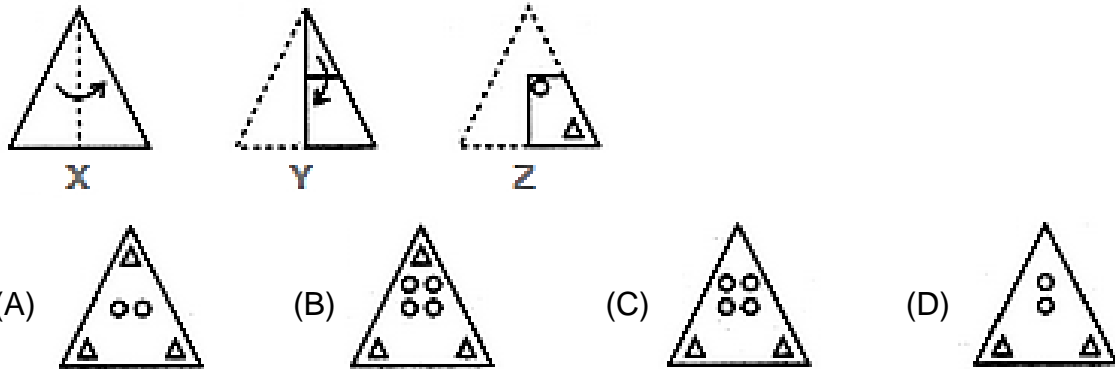
- (A) 4                      (B) 1                      (C) 3                      (D) 2

6. Which of the following diagrams indicates the best relation between Women, Mothers and Engineers?



—SPACE FOR ROUGH WORK—

7. Consider the figure X, Y, and Z showing a sheet of paper folded and punched on the sheet of paper. Select a figure from the options which will most closely resemble the pattern unfolded position of figure.



8. Choose the alternative which is closely resembles the water-image of the given combination.

**A1M3b**

- (A) **∇1M3P**      (B) **∇1M3P**      (C) **∇1M3P**      (D) **∇1M3P**

9. If 'A + B' means A is the father of B, 'A - B' means A is the brother of B, 'A ÷ B' means A is the wife B and 'A x B' means A is the mother of B, then which of the following represents M is the maternal grandmother of T?

- (A)  $M \times N \div S + T$       (B)  $M \times N - S \div T$       (C)  $M \times S - N \div T$       (D)  $M \times N \times S \div T$

10. Find out the alternative figure which contains figure (X) as its part.



Figure (X)

- (A)      (B)      (C)      (D)

—SPACE FOR ROUGH WORK—

11. Select a suitable figure from the answer figure that would replace the question mark?



- (A) (B) (C) (D)

12. Choose the alternative which is closely resembles the mirror image of the given combination.

**247596**

- (A) **695742** (B) **965742** (C) **247596** (D) **695742**

13. Manoj walks a distance of 5 meters towards North, then he turns to east and walks a distance of 10 meters. Then he turns to his right and covers a distance of 15 meters. He then turns to his left and covers a distance of 15 meters. Which direction is he facing now?

- (A) North (B) East (C) West (D) South

14. If 'P' is the brother of 'Q'; 'Q' is the sister of 'R', and 'R' is the father of 'S'. Then how 'S' is related to 'P'?

- (A) brother (B) Niece (C) Nephew (D) Cannot be determined

15. If 'EARTH' is coded as 'FCUXM' in a certain code, how is 'MOON' coded ?

- (A) NQRR (B) NQRS (C) NQQR (D) LPQM

—SPACE FOR ROUGH WORK—

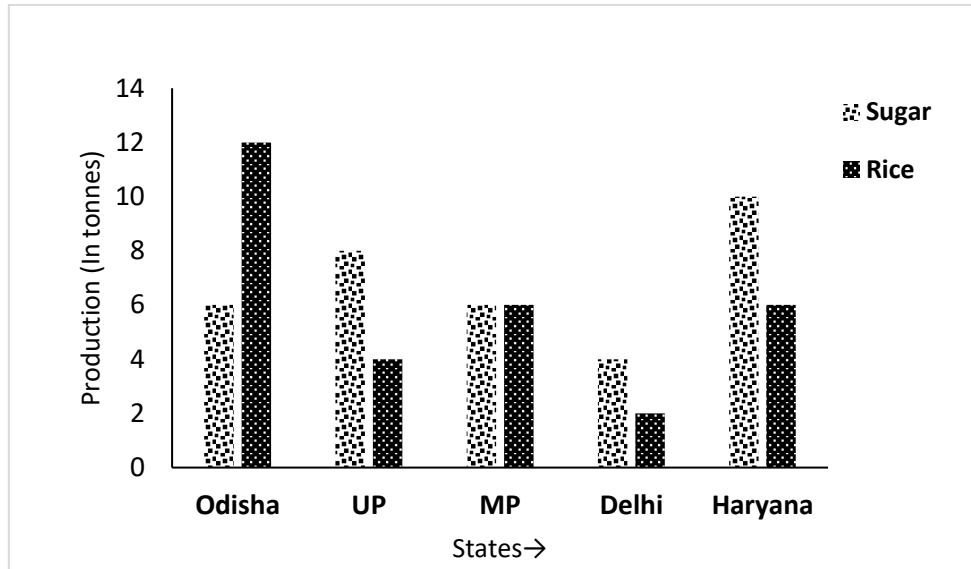
## MATHEMATICAL REASONING

16. Find the difference between the place values of two 5's in 754953?  
(A) 49000                      (B) 49900                      (C) 49950                      (D) 49056
- 
17. Identify the place for the underlined digit of the number given below.  
9,235, 725  
(A) Hundreds                      (B) Millions                      (C) Thousands                      (D) Tens
- 
18.  $(32 \times 21) \times 29 = 32 \times (21 \times 29)$  is an example of \_\_\_\_\_ property  
(A) Distributive                      (B) Closure                      (C) Commutative                      (D) Associative
- 
19. What least value should be given to '\*' so that the number  $753 * 47$  is divisible by 11?  
(A) 0                      (B) 1                      (C) 2                      (D) 4
- 
20. The HCF of co-prime numbers is?  
(A) 0                      (B) 2                      (C) product of these numbers                      (D) 1
- 
21. If  $4267 *$  is divisible by '9', then what can be the least value of \* ?  
(A) 3                      (B) 8                      (C) 2                      (D) 7
- 
22. In the given figure, lines P, Q and R called \_\_\_\_\_ lines.
- 
- (A) Co-linear                      (B) Concurrent                      (C) Parallel                      (D) Transversal
- 
23. Number of diameters that can be drawn in a circle is:  
(A) 1                      (B) 2                      (C) Infinite                      (D) None of these
- 
24. Three points on a single line are called \_\_\_\_\_ points.  
(A) Concurrent                      (B) Non-colinear                      (C) Co-linear                      (D) Concentric
- 

—SPACE FOR ROUGH WORK—

25. Sum of two integer is  $-49$ , if one of them is  $21$ , then the other one is  
 (A)  $-70$  (B)  $70$  (C)  $-68$  (D)  $68$

**Direction (26-30):** Read the following bar graph and answer the questions given below:



26. Which state is the largest producer of Sugar?  
 (A) U.P. (B) Odisha (C) Haryana (D) M.P
- 
27. Which state is the least producer of Rice?  
 (A) Delhi (B) M.P (C) Odisha (D) U.P
- 
28. Which state has the highest total production of Rice and Sugar?  
 (A) U.P. (B) Odisha (C) Delhi (D) M.P
- 
29. Which state has the lowest total production of rice and sugar?  
 (A) Odisha (B) M.P. (C) Delhi (D) U.P.
- 
30. What is the total production of rice in all the states together?  
 (A) 30 tonnes (B) 40 tonnes (C) 55 tonnes (D) None of these

—SPACE FOR ROUGH WORK—

31. Find the value of:  $-23 + 59 - (-37) - 279 + 76$   
 (A) 126 (B) -130 (C) 130 (D) 230
- 
32. The integer which is '7' units to the left of '2' on the number line is \_\_\_\_\_.  
 (A) -5 (B) -7 (C) 5 (D) 9
- 
33. Find the successor of smallest 7-digit number.  
 (A) 1000001 (B) 999999 (C) 9999999 (D) 1000000
- 
34. What is the value of  $600 + 1200 \div 6 \times 2 + 400 \times 2$  ?  
 (A) 1400 (B) 1500 (C) 1800 (D) 2000
- 
35. A piece of paper is torn. In which column did the number 1493 appear?

- (A) I (B) II  
 (C) III (D) IV

I	II	III	IV
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18		

—SPACE FOR ROUGH WORK—

## EVERYDAY MATHEMATICS

36. There are 2930 students in a college. If each student pays Rs.650/- for a trip, then how much money will be collected by the college?  
(A) Rs.4230000      (B) Rs.1904500      (C) Rs.1905400      (D) Rs.2430000
- 
37. Find the cost of cultivating a rectangular field 32 m long and 19 m wide at Rs.3.50 per square meter?  
(A) Rs.2138      (B) Rs.1238      (C) Rs.2198      (D) Rs.2128
- 
38. Ram bought 6 pair of socks and 5 belts. A pair of socks cost half as much as a belt. If each belt cost Rs.28.50, then how much did Ram spend together?  
(A) Rs.229      (B) Rs.227      (C) Rs.228      (D) Rs.230
- 
39. In a set of 15 questions, 3 marks are awarded for each correct answer and -1 mark for each wrong answer. Ram gave nine correct and 6 wrong answers. What is his score?  
(A) 21 mark      (B) 27 mark      (C) 31 mark      (D) 33 mark
- 
40. On one day the temperature in a city at 8 p.m. was  $3^{\circ}\text{C}$ . But at mid-night, it fell down to  $-5^{\circ}\text{C}$ . By how many degrees did the temperature fall?  
(A)  $2^{\circ}\text{C}$       (B)  $8^{\circ}\text{C}$       (C)  $3^{\circ}\text{C}$       (D)  $7^{\circ}\text{C}$
- 
41. Sita has  $\frac{3}{4}$  L. of milk, she used  $\frac{2}{5}$  L to make a cup of tea. How much milk she has left with?  
(A)  $\frac{7}{20}$  L      (B)  $\frac{3}{20}$  L      (C)  $\frac{6}{20}$  L      (D)  $\frac{1}{2}$  L
- 

—SPACE FOR ROUGH WORK—

42. The cost of 97 notebooks is Rs.5048.85. What is the cost of 1 such note book?  
(A) 50.05                      (B) 58.15                      (C) 54.85                      (D) 52.05
- 
43. Ranjan had Rs.937.95. He bought goods for Rs.593.89. The amount left with Ranjan is \_\_\_\_\_?  
(A) 344.06                      (B) 244.96                      (C) 341.06                      (D) 354.06
- 
44. Sweta travelled  $7x$  km distance by walk,  $11y$  km by bus and 9 km by truck. The total distance covered by Sweta (in km) is \_\_\_\_\_.  
(A)  $7x - 11y + 9$               (B)  $7x - 11y - 9$               (C)  $7x + 11y + 9$               (D)  $7x + 11y - 9$
- 
45. The price of a shirt and trouser is in the ratio 9:5. If a shirt costs Rs.240 more than the trouser, then the price of the trouser is \_\_\_\_\_.  
(A) Rs.540                      (B) Rs.300                      (C) Rs. 840                      (D) Rs.450
- 

—SPACE FOR ROUGH WORK—

## ACHIEVERS SECTION

46. Consider the following addition of two 2-digits numbers, where the sum is a 3-digit number.

$$\begin{array}{r} \phantom{+} B \phantom{0} 2 \\ + \phantom{0} 2 \phantom{0} A \\ \hline = D \phantom{0} 2 \phantom{0} C \end{array}$$

A, B, C and D represent 4 different digits. Which of the following is not a value of A, B, C or D?

- (A) 8                                      (B) 1                                      (C) 6                                      (D) 0

47. Sunil's school bus is facing North when it reaches his school. After starting from Sunil's house, it turned right twice and then left before reaching the school. What direction the bus was facing when it left the bus stop in front of Sunil's house?

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

48. The value of  $2\frac{1}{12} - \left[1\frac{2}{3} + \left\{3\frac{1}{2} - \left(1\frac{1}{2} - \frac{1}{3}\right)\right\}\right]$

- (A)  $-\frac{21}{12}$                                       (B)  $\frac{1}{12}$                                       (C)  $\frac{27}{12}$                                       (D)  $-\frac{23}{12}$

49. Find the value of  $P + Q + R$ , if 474P is divisible by 9, 473Q is divisible by 11 and 581R is divisible by 6?

- (A) 0                                      (B) 7                                      (C) 9                                      (D) 11

50. Which of the following equation does not have a solution in integer?

- (A)  $x + 3 = 5$                                       (B)  $x + 2 = 1$                                       (C)  $1 - x = 9$                                       (D)  $3x + 1 = 3$

—SPACE FOR ROUGH WORK—

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