SOF INTERNATIONAL MATHEMATICS OLYMPIAD

Total Questions : 35   Time : 1 hr.

PATTERN & MARKING SCHEME				
Section	(1) Logical Reasoning	(2) Mathematical Reasoning	(3) Everyday Mathematics	(4) Achievers Section
No. of Questions	10	10	10	5
Marks per Ques.	1	1	1	2

SYLLABUS

Section – 1 : Patterns, Alphabet Test, Coding-Decoding, Ranking Test, Mirror Images, Geometrical Shapes and Solids, Embedded Figures, Direction Sense Test, Days and Dates & Possible Combinations, Analogy and Classification.

Section – 2 : Numerals and Number Names, Number Sense (more than 4-digit numbers), Computation Operations, Fractions, Length, Weight, Capacity, Time, Money, Geometry, Perimeter of Various Shapes, Symmetry, Conversions, Data Handling

Section – 3 : The Syllabus of this section will be based on the Syllabus of Mathematical Reasoning.

Section – 4 : Higher Order Thinking Questions - Syllabus as per Section–2.

LOGICAL REASONING

1. What is the rule for this number pattern?

$$1, 1, 2, 6, 24, 120, . . .$$

(A) Add 0, then add 1, then add 2, and so on
(B) Multiply by 1, then multiply by 2, then multiply by 3, and so on
(C) Multiply by 1, then add 1, and so on
(D) Multiply by 2, then subtract 1, and so on

2. There are four figures out of which three are same in some way while one is different from the rest. Find out the different figure.

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

3. Count the number of straight lines in the given figure.

(A) 17   (B) 18
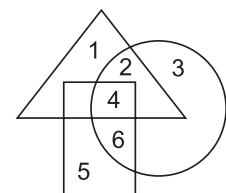(C) 19   (D) 20

4. If in a certain code language 'MONKEY' is coded as 'YEKNOM', then how will 'MONIKA' be coded in that language?

(A) KANIMO   (B) AKINOM   (C) NOMIKA   (D) AIKONM

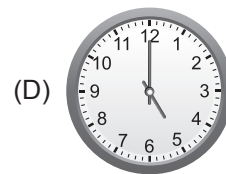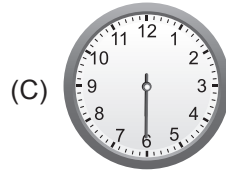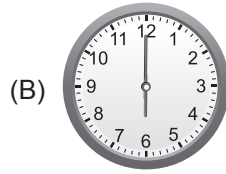**5.** Which number lies in all the three figures?

(A) 1
(B) 2
(C) 4
(D) 5

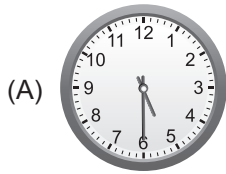## MATHEMATICAL REASONING

6. If ◇ × 4 = ☆ and ☆ – ◇ = 330, then ☆ + ◇ = _____.
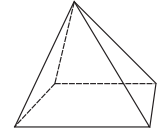
(A) 110   (B) 440   (C) 550   (D) 990

7. Mohit went for swimming at 2:30 p.m. and returned back home $3\frac{1}{2}$ hours later. The time he came back home is _____.

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

8. How many vertices does the given figure have?

(A) 4
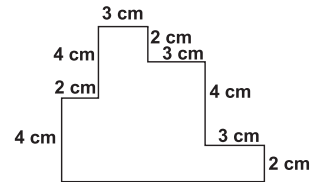
(B) 5

(C) 6

(D) 8

9. There are _____ tens in 36520.

(A) 12   (B) 36   (C) 365   (D) 3652

10. The perimeter of the given figure (not drawn to scale) is _____.

(A) 35 cm

(B) 27 cm

(C) 38 cm

(D) 42 cm

EVERYDAY MATHEMATICS

11. There are 3 rows of strawberry plants. Each row has 6 plants. How many strawberry plants are there in all?

(A) 9   (B) 18   (C) 22   (D) 24

12. Ram, Rahul and Rohit shared a bag of marbles. The bag contained 272 marbles. How many marbles were left over after the friends shared them equally?

(A) 90   (B) 91   (C) 6   (D) 2

13. There were 3856 trees in a forest. In another forest, there were 4795 trees. How many more trees were there in the second forest?

(A) 930   (B) 939   (C) 1689   (D) 1600
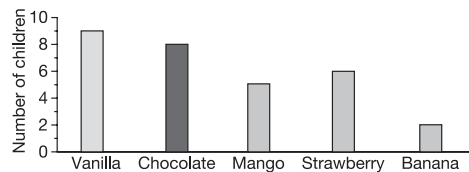
ACHIEVERS SECTION

14. Find the value of $\dfrac{P-Q+R}{S}$.

(A) 3

(B) 4

(C) 6

(D) 7

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            1 P 19
    38) 7 2 9 5 4 (
        −3 8
        ─────
          3 4 9
         −3 Q 2
         ─────
            7 5
          − 3 8
          ─────
            3 R 4
          − 3 4 2
          ─────
              S 2
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15. The given bar graph shows the favourite ice-cream flavours of a group of children. What fraction of total children prefer strawberry flavour?

(A) 1/4

(B) 1/5

(C) 1/6

(D) 4/15

ANSWERS

1. (B)   2. (D)   3. (B)   4. (B)   5. (C)   6. (C)   7. (B)   8. (B)   9. (D)   10. (C)   11. (B)   12. (D)   13. (B)   14. (B)   15. (B)