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 : Syllabus as per Section–2.

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

LOGICAL REASONING

1. How many triangles are there in the given figure?
(A) 11
(B) 12
(C) 10
(D) 14
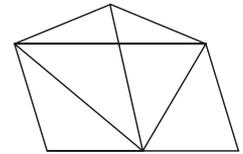
2. There is a certain relationship between Fig. (i) and (ii). Establish a similar relationship between Fig. (iii) and (iv) by selecting a suitable figure from the options which will replace the (?) in Fig. (iv).

(i)   (ii)   (iii)   (iv)
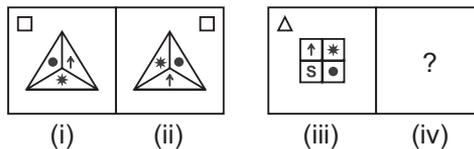
(A)   (B)   (C)   (D)

3. Some letters are given which are numbered 1, 2, 3, 4, 5 and 6 followed by four options containing combinations of these numbers. Find the combination of numbers so that letters are arranged accordingly to form a meaningful English word.

N O L E D G
1 2 3 4 5 6

(A) 6, 2, 3, 5, 4, 1   (B) 5, 4, 1, 6, 2, 3   (C) 3, 4, 1, 6, 5, 2   (D) 1, 6, 5, 4, 3, 2

MATHEMATICAL REASONING

4. Difference between the place values of 4 and 5 in the number given below is _____.

409500

(A) 1   (B) 399500   (C) 39500   (D) 39590

5. The given figure is made up of three rectangles.
Find the length of CD.

(A) 10 cm
(B) 7 cm
(C) 8 cm
(D) 13 cm
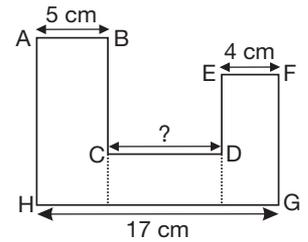
6. How many multiples of 10 are there from 20 to 150?

(A) 13　　　　(B) 14　　　　(C) 15　　　　(D) 12

EVERYDAY MATHEMATICS

7. The flight from Chennai to Dubai took off at 4:45 hours. It landed in Dubai at 9:15 hours. How long was the flight?

(A) 4 hrs 50 mins　　(B) 3 hrs 55 mins　　(C) 4 hrs 30 mins　　(D) 4 hrs 10 mins

8. The total number of children in a class is 40. 7 children were absent on Monday. What fraction of total children were present on Monday?

(A) $\dfrac{7}{40}$　　　(B) $\dfrac{33}{40}$　　　(C) $\dfrac{40}{7}$　　　(D) $\dfrac{40}{33}$

ACHIEVERS SECTION

9. Pinku, Ravi, Brijesh and Raghu are friends. The graph shows the number of toy cars each of them have. What can we conclude from the given graph?

(A) Brijesh has one-third the number of toy cars Pinku has.

(B) Three children have more than 20 toy cars.

(C) Ravi has twice as many toy cars as Brijesh has.

(D) Brijesh has 1 toy car less than Raghu.
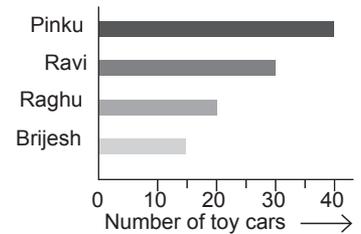
10. Sanchi thinks of two numbers.

> • The difference between the numbers is 8.
> • The product of the numbers is 128.
> • Both the numbers are even numbers.

What is the sum of the value of numbers and value of smaller number?

(A) 28, 4　　　(B) 24, 8　　　(C) 32, 8　　　(D) 24, 16

SPACE FOR ROUGH WORK

ANSWERS

IMO – 1. (C)　2. (D)　3. (A)　4. (B)　5. (C)　6. (B)　7. (C)　8. (B)　9. (C)　10. (B)