SOF NATIONAL SCIENCE OLYMPIAD
Total Questions : 50

|  | Time : 1 hr . |  |  |
| :---: | :---: | :---: | :---: |
| PATTERN \& MARKING SCHEME |  |  |  |
| No. of Questions | (1) Logical Reasoning | (2) Science | (3) Achievers Section |
| Marks per Ques. | 10 | 35 | 5 |

SYLLABUS
Section - 1 : Patterns, Analogy and Classification, Geometrical Shapes, Mirror and Water Images, Direction Sense Test, Ranking Test, Alphabet Test, Logical Sequence of Words, Puzzle Test, Coding-Decoding, Clock and Calendar.
Section - 2 : Animals, Human Body and Health, Plants, Natural Resources and Indian Heritage, Pollution and Calamities, Earth and Universe, Matter and Materials, Force and Energy.
Section - 3 : Higher Order Thinking Questions - Syllabus as per Section - 2.

## LOGICAL REASONING

1. What is the smallest number of shaded squares that must be added, so that the line MN becomes a line of symmetry?
(A) 11
(B) 12
(C) 13
(D) 10
2. $\qquad$ figures have atleast one line of symmetry.

(A) 2
(B) 1
(C) 3
(D) 4
3. If 'Book' means 'Watch', 'Watch' means 'Bag', 'Bag' means 'Pen' and 'Pen' means 'Pencil', then which is used to read time?
(A) Book
(B) Watch
(C) Bag
(D) Pen

## SCIENCE

4. If your diet is deficient in citrus fruits then you are supposed to suffer from
(A) Rickets
(B) Beri Beri
(C) Scurvy
(D) Night blindness.
5. $\qquad$ is a good conductor of electricity.
(A) Metal
(B) Rubber
(C) Plastic
(D) All of these
6. The Gateway of India is located in $\qquad$ -
(A) Mumbai
(B) New Delhi
(C) Jaipur
(D) Patna
7. Which of the following are included in first class levers?
8. 


2.

3.

4.

(A) 1, 2 and 4 only
(B) 1 and 2 only
(C) 3 and 4 only
(D) 1, 3 and 4 only
8. Look at the figure. It shows lunar eclipse. Where will be the Earth in it?

(A) a
(B) b
(C) c
(D) $d$

## ACHIEVERS SECTION

9. Three different types of plants $X, Y$ and $Z$, were selected by scientists who want to document their methods of seed dispersal. The graphs below show the approximate number of seedlings found at various distances around the parent plant.


X


Y


Z

Which option most correctly lists the methods of seed dispersal of each plant?

| $\mathbf{X}$ | Y | $\mathbf{Z}$ |
| :--- | :--- | :--- |
| (A) Water | Explosive action | Animal |
| (B) Wind | Animal | Water |
| (C) Wind | Animal | Explosion |
| (D) Explosion | Water | Animal |

10. Identify $1,3,4$ and 6 in the given pyramid and select the correct option.

|  | $\mathbf{1}$ | $\mathbf{3}$ | $\mathbf{4}$ |
| :--- | :--- | :--- | :--- |
| (A) | Fruits | Grains | Proteins |
| Sweets and fats |  |  |  |
| (B) | Grains | Fruits | Proteins |
| Sweets and fats |  |  |  |
| (C) Proteins | Fruits | Grains | Sweets and fats |
| (D) Fruits | Proteins | Fats | Grains |


8. (B)
9. (C)
10. (B)

