



**SOF NATIONAL  
SCIENCE OLYMPIAD**

Total Questions : 50

Time : 1 hr.

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

**SYLLABUS**

**Section – 1 :** Patterns, Analogy and Classification, Coding-Decoding, Geometrical Shapes, Mirror Images, Water Images, Embedded Figures, Direction Sense Test, Ranking Test, Alphabet Test and Logical Sequence of Words, Puzzle Test.

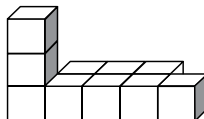
**Section – 2 :** Animals, Human Body and Health, Plants, Natural Resources, Pollution and Calamities, Earth and Universe, Matter, Force, Work and Energy.

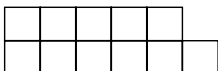
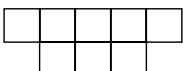
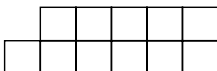
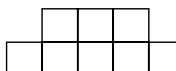
**Section – 3 :** Higher Order Thinking Questions - Syllabus as per Section – 2.

**LOGICAL REASONING**

1. If you are eleventh in a queue starting either end, then how many are there in the queue?  
 (A) 11                      (B) 21                      (C) 20                      (D) 24

2. Choose the 2-dimensional figure that represents the 3-dimensional figure when viewed from top.



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

3. The mirror image of SON, if the mirror is placed vertically to the left is \_\_\_\_\_.  
 (A) NOS                      (B) 2ON                      (C) 2OI                      (D) IO2

**SCIENCE**

4. The term 'Reduce' is one of the three R's (reduce, reuse and recycle) to save the environment. An example of the opposite of reducing is over-packaging which is an anti-environment activity. Which of the following packaging activities is anti-environment?

- (A) Filling a cereal box completely  
 (B) Putting an item in a cardboard box, then putting that box in another box  
 (C) Putting foam packing material around a fragile item  
 (D) Packing an item in the smallest possible box

5. If your diet is deficient in sour fruits then you are supposed to suffer from  
 (A) Rickets                      (B) Beri Beri                      (C) Scurvy                      (D) Night blindness.

6. \_\_\_\_\_ is a good conductor of electricity.  
 (A) Metal                      (B) Rubber                      (C) Plastic                      (D) All of these

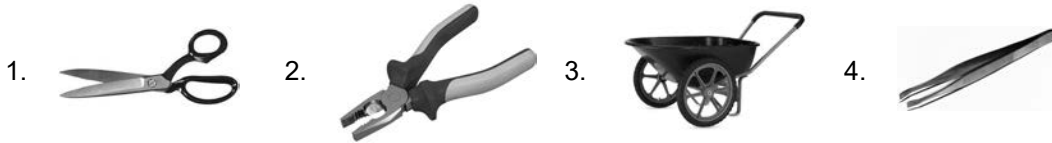
7. A small baby plant coming out of a seed is called \_\_\_\_\_.  
 (A) Grain                      (B) Root                      (C) Dispersal                      (D) Seedling.

8. Which of these is needed to measure the mass of a rock?  
 (A) A balance                      (B) A barometer                      (C) A metric ruler                      (D) A thermometer

9. Burning of garbage leads to \_\_\_(i)\_\_. (i) can cause deadly diseases such as \_\_\_(ii)\_\_\_ and asthma. Which of the following options correctly fills the blanks (i) and (ii)?  
 (A) (i)-Air pollution, (ii)-Lung cancer (B) (i)-Water pollution, (ii)-Lung cancer  
 (C) (i)-Soil pollution, (ii)-Cholera (D) (i)-Water pollution, (ii)-Typhoid

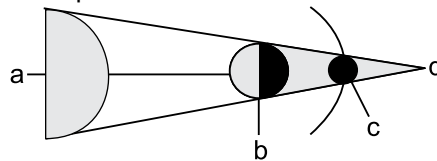
10. The substance that imparts green colour to the plants is known as  
 (A) Water (B) Chlorophyll (C) Carbon dioxide (D) Calcium.

11. Which of the following are included in first class levers?



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

12. Look at the figure. It shows lunar eclipse. Where will be the Earth in it ?

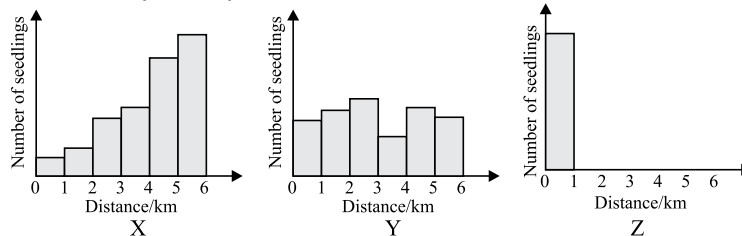


- (A) a (B) b (C) c (D) d

13. If there is no rain, crops fail to grow. This condition will lead to  
 (A) Flood (B) Drought (C) Famine (D) Both (B) and (C).

### ACHIEVERS SECTION

14. 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.

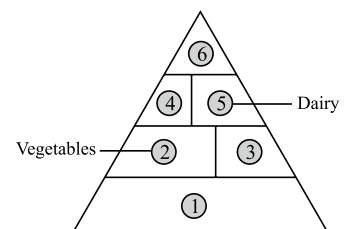


Which option most correctly lists the methods of seed dispersal of each plant?

- | X                    | Y                | Z                |
|----------------------|------------------|------------------|
| (A) Water            | Explosive action | Animal           |
| (B) Wind             | Animal           | Water            |
| (C) Wind             | Animal           | Explosive action |
| (D) Explosive action | Water            | Animal           |

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

- | 1            | 3        | 4        | 6               |
|--------------|----------|----------|-----------------|
| (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          |



### ANSWERS

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