



**SOF NATIONAL
SCIENCE OLYMPIAD**

SYLLABUS

Section – 1 : Verbal and Non-Verbal Reasoning.

Section – 2 : Crop Production and Management, Microorganisms, Synthetic Fibres and Plastics, Metals and Non-metals, Coal and Petroleum, Combustion and Flame, Conservation of Plants and Animals, Cell, Reproduction and Endocrine System, Force and Pressure, Friction, Sound, Chemical Effects of Electric Current, Some Natural Phenomena, Light, Stars and the Solar System, Pollution of Air and Water.

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

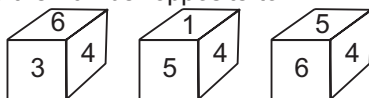
Total Questions : 50

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

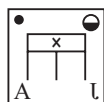
LOGICAL REASONING

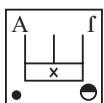
1. Three positions of a dice are shown below. What is the number opposite to 1 ?



- (A) 2 (B) 3
(C) 5 (D) 6

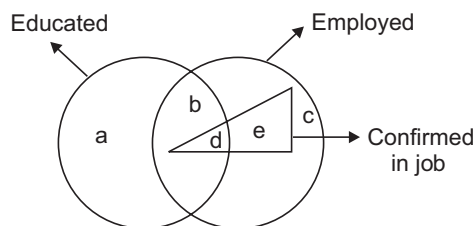
2. Select the correct water image of the given figure.



- (A)  (B) 



3. In the given Venn diagram, find the region representing persons who are educated and employed but not confirmed in job.



- (A) d (B) e
(C) b (D) a, b

SCIENCE

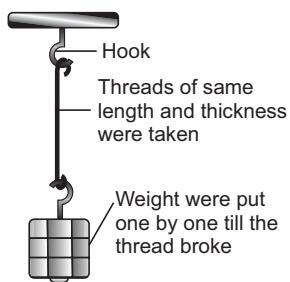
4. Bees which are not carrying honey fly with a flapping frequency of 440 Hz while those which are carrying honey fly with a flapping frequency of 300 Hz. The sound made by bees which are not carrying honey has
(A) A lower pitch (B) A higher pitch
(C) A smaller loudness (D) A greater loudness
5. The pressure of the water near the bottom of the wall forming a dam does not depend on _____.
(A) The depth of the water
(B) The cross-sectional area of the reservoir
(C) Density of water
(D) Atmospheric pressure
6. When Cu is exposed to moist air for a long time, which of the following is formed?
(A) $\text{Cu}(\text{OH})_2$
(B) CuCO_3
(C) Both (A) and (B)
(D) Cu_2O
7. Which of the following on reshuffling gives the term that refers to the process of sowing seeds manually by sprinkling them on soil by hand?
(A) INIGTIL
(B) GLNOPUIHG
(C) ATNBRDOCAIGS
(D) GIOWNWIN

8. Which of the following groups represents the bacterial diseases?
 (A) Cholera, Tuberculosis, Malaria, Measles

- (B) Small pox, Tuberculosis, Malaria, Typhoid
 (C) Cholera, Tuberculosis, Typhoid, Measles
 (D) Cholera, Anthrax, Tuberculosis, Typhoid

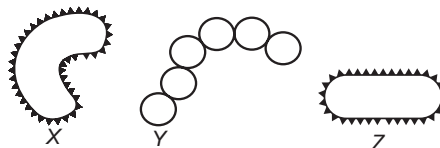
ACHIEVERS SECTION

9. Anuj performed an experiment to compare the strength of different fibres. He arranged the set-up as shown in the figure : Arrange the threads in order of their increasing strength.



- (A) Nylon < Silk < Cotton
 (B) Silk < Cotton < Nylon
 (C) Cotton < Nylon < Silk
 (D) Cotton < Silk < Nylon

10. Refer to the given figures of bacteria X, Y and Z and read the statements (i), (ii), (iii) and (iv) regarding them.



- (i) Bacterium X can be causal organism of typhoid.
 (ii) Bacterium Y can cause a disease which disrupts proper exchange of gases.
 (iii) Bacterium Z can convert lactose sugar of milk into lactic acid.
 (iv) Bacterium X can be the causal organism of cholera.

Which of these statements are incorrect?

- (A) (i) only
 (B) (i) and (ii) only
 (C) (ii), (iii) and (iv) only
 (D) (i), (ii), (iii) and (iv)

SPACE FOR ROUGH WORK

ANSWERS

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