CLASS

9

SCIENCE OLYMPIAD FOUNDATION

SAMPLE PAPER 2026-27

(Formerly SOF NSO)

SOF INTERNATIONAL 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 : Verbal and Non-Verbal Reasoning.

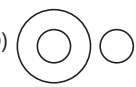
Section – 2 : Motion, Force and Laws of Motion, Gravitation, Work and Energy, Sound, Matter in Our Surroundings, Is Matter Around Us Pure? Atoms and Molecules, Structure of the Atom, Cell-The Fundamental Unit of Life, Tissues, Diversity in Living Organisms, Human Health and Diseases, Improvement in Food Resources.

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

**For latest syllabus, keep visiting www.sofworld.org*

LOGICAL REASONING

1. Which of the following Venn diagrams best represents the relationship amongst, "Soldiers, Women and Indians"?

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

2. Select the odd one out.

(A) FQKV (B) MDQH (C) TPXS (D) CJGN

3. Select the correct water image of the given word.

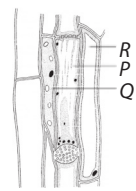
INSTRUMENTS

(A)  (B) 

(C)  (D) 

SCIENCE

4. Identify the labelled parts *P*, *Q* and *R* in the given figure and select the incorrect statement regarding them.



(A) The end wall of *P* is perforated with numerous pores and it does not have nucleus.

(B) *Q* is metabolically active cell that helps in conduction of food material.

(C) *R* is living parenchymatous cell that helps in the storage of food.

(D) *P*, when mature, is thick-walled and elongated containing dense cytoplasm and large elongated nucleus.

5. Select the correct match.

(A) Johannes E. Purkinje — Sarcode

(B) M.J. Schleiden — Plants are composed of cells

(C) Haeckel — Cell arises from pre-existing cells

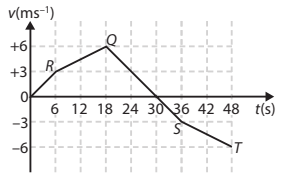
(D) Rudolf Virchow — Nucleus transmits heredity informations

6. Two particles *M* and *N* have the composition as shown in the table :

Particle	Number of electrons	Number of neutrons	Number of protons
M	10	12	11
N	10	12	12

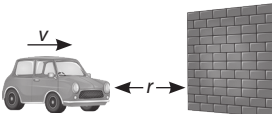
Which of the following statements is correct about the given particles?
(A) Both *M* and *N* are cations.
(B) Nucleon numbers of *M* and *N* are 23 and 24 respectively.
(C) Particle *M* is Na^+ and particle *N* is Mg^{2+}.
(D) All of these

7. The motion of a particle in a straight line is depicted through the given velocity (*v*)- time (*t*) graph.



Which of the following statements is/are correct about the motion of the particle?
(i) The distance travelled by particle in duration 6s to 18s is greater than 50 m.
(ii) The acceleration of the particle in duration t = 18s to t = 30s is $-0.5\ ms^{-2}$.
(iii) The displacement of the particle during t = 10s to t = 25s is less than the distance travelled by particle in the same span.
(A) (i) and (ii) only (B) (ii) only (C) (iii) only (D) (i), (ii) and (iii)

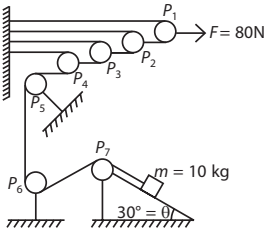
8. Mohan is driving a car with velocity *v* on the road and suddenly sees a broad wall in front of him at a distance *r* as shown in the given figure.



He has two alternatives either to apply brakes instantly or take a sharp turn. Which one of the following correctly represents the course of action, taken by Mohan and reason behind it to avoid direct strike with the wall?
(A) Mohan should take a sharp turn as it will be easier for the moving car to turn and avoid collision because turning will require less amount of force to be applied.
(B) Mohan should apply brakes instantly as it will require less amount of force to be applied.
(C) Both applying brake and taking a sharp turn, will require equal amount of force to be applied.
(D) It is not possible to avoid collision in any case.

ACHIEVERS SECTION

9. In the given figure, all the pulleys and strings are massless and all the surfaces are frictionless. A small block of mass *m* is placed on a fixed wedge. What is the acceleration of the block?



(A) $4.5\ ms^{-2}$ down the incline
(B) $4.5\ ms^{-2}$ up the incline
(C) $5\ ms^{-2}$ down the incline
(D) Zero

10. Plant cell does not burst in a hypotonic solution because _____.
(i) Its cell sap is more concentrated (ii) Its cell wall resists bursting
(iii) Its cell sap is rich in cellulose (iv) It does not have lysosomes
(A) (i) only (B) (ii) only (C) (i) and (iii) only (D) (i), (ii) and (iv) only

ANSWER KEY

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