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(SCHOLARS INTEGRAL MATHS & SCIENCE OLYMPIADS)



## BIGGEST NATIONAL LEVEL OLYMPIADS (STAGE - II) : 2025-26

MAX. MARKS : 90

SISO QUESTION PAPER

TIME: 60 MIN.

NAME OF THE STUDENT : .....

HALL TICKET NUMBER : .....

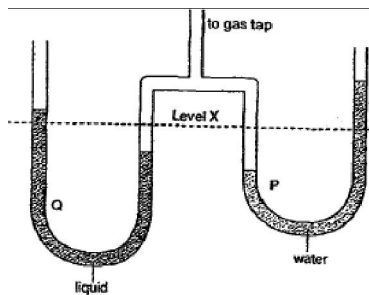
NAME OF THE SCHOOL : .....

### INSTRUCTIONS TO THE STUDENTS :

- ☞ Write your Hall ticket number immediately after receiving the question paper booklet.
- ☞ Darken the answers only on the OMR Sheet.
- ☞ Read the instructions given on the OMR sheet and follow them accordingly.
- ☞ Don't write any thing on the question paper booklet.
- ☞ To do rough work, use only the white paper provided in the examination hall.
- ☞ **No negative marks.**
- ☞ This question paper booklet consists of 30 questions.
- ☞ **PHYSICS (Q.No-1 to 10) :**  
First 7 questions (1 to 7) are single correct answer type.  
Each question carries THREE marks.  
Next 3 questions (8 to 10) are one or more than one correct answer type. Each question carries THREE marks.
- ☞ **CHEMISTRY (Q.No-11 to 20) :**  
First 7 questions (11 to 17) are single correct answer type.  
Each question carries THREE marks.  
Next 3 questions (18 to 20) are one or more than one correct answer type. Each question carries THREE marks.
- ☞ **BIOLOGY (Q.No-21 to 30) :**  
All questions (21 to 30) are single correct answer type.  
Each question carries THREE marks.
- ☞ Students are not allowed to use any Mathematical and Physical tables (OR) any other electronic devices.
- ☞ After completion of the examination hand over the OMR answer sheet to the invigilator without fail. You can retain the question paper with you.
- ☞ Students should not leave the examination hall before the last bell rings.
- ☞ To know your results log in to our website [www.simsolympiads.com](http://www.simsolympiads.com).
- ☞ Stage-I branch result copy will be sent to the school mail id. Please contact your principal to know your result.



7. The apparatus shown below is connected to a gas tap in order to measure the pressure of gas. The tube 'P' contains water and the tube 'Q' contains some other liquid, the liquid levels in the tubes being originally at 'X'. When the gas is turned on, the water in the open limb of 'P' rises to a higher level than that of the liquid in the open limb of 'Q', as shown in the diagram. This is due to

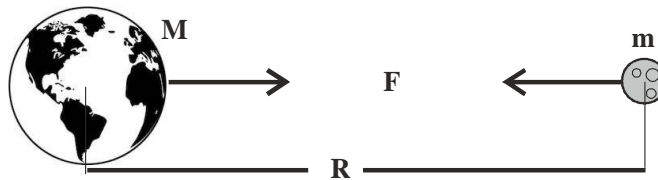


- 1) The liquid 'Q' is denser than water
- 2) Tube P is closer to the gas tap than tube Q
- 3) There is more liquid in tube Q than in tube P
- 4) The pressure of the gas exerted on P is higher than that exerted on Q

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**Multi Correct Answer Type :**
**3 × 3 = 9M**

8. Which of the following statements regarding gravitational force existing between two bodies is/are false?



- 1) The gravitational force is zero when they are kept in vacuum
  - 2) Force exerted by the first body on the second body is not equal to the force exerted by the second body on the first
  - 3) The first body exerts attractive force on the second body while the second body exerts repulsive force on the first body
  - 4) Force exerted by the first body on the second body is equal to the force exerted by the second body on the first
9. When a body is weighed in a liquid the loss in its weight is equal to
- 1) Weight of liquid displaced by the body
  - 2) Weight of water displaced by the body
  - 3) The difference in weights of a body in air and liquid
  - 4) The upthrust of liquid on the body

**10. As a wave propagates**

- 1) The wave intensity remains constant for a plane wave
- 2) The wave intensity decreases as the inverse of the distance from the source for a spherical wave.
- 3) The wave intensity decreases as the inverse square of the distance from the source for a spherical wave
- 4) Total intensity of the spherical wave over the spherical surface centred at the source remains constant at all time

**Single Correct Answer Type :****7 × 3 = 21M****11. To separate the phases mentioned in Column - I, some methods are given in Column - II. Choose correct answer.****Column - I**

- a) Alcohol and water
- b) Oil and water
- c) Glucose and water
- d) Camphor and common salt

**Column - II**

- p) Distillation
- q) Sublimation
- r) Separating funnel
- s) Fractional distillation

- 1) a-s, b-r, c-q, d-p    2) a-s, b-r, c-p, d-q    3) a-s, b-p, c-r, d-q    4) a-r, b-s, c-p, d-q

**12. Two chemical species X and Y combine together to form a product P which contains both X and Y.  $X + Y \rightarrow P$ , X and Y cannot be broken down into simpler substances by simple chemical reactions. Which of the following concerning the species X, Y and P are correct?****i) P is a compound****ii) X and Y are compounds****iii) X and Y are elements****iv) P has a fixed composition**

- 1) (i), (ii) and (iii)    2) (i), (ii) and (iv)    3) (ii), (iii) and (iv)    4) (i), (iii) and (iv)

**13. Two atoms  ${}_{92}\text{U}^{235}$  and  ${}_{92}\text{U}^{238}$  are similar in terms of****I. Number of protons****II. Number of electrons****III. Number of neutrons**

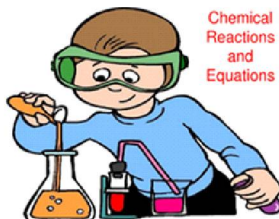
- 1) I only    2) I and II only    3) I and III only    4) I, II and III

**14. An isotope of Helium is represented by the symbol  ${}_{10}^{21}\text{Ne}$ . How many protons, neutrons and electrons are there in an atom of the isotope?**

- |    | Protons | Neutons | Electrons |
|----|---------|---------|-----------|
| 1) | 10      | 11      | 10        |
| 2) | 11      | 10      | 11        |
| 3) | 21      | 20      | 21        |
| 4) | 10      | 21      | 10        |

15. Which of the following information are conveyed by a chemical reaction?

- a) The colour changes taking place
- b) The state of changes taking place
- c) The absorption of energy only
- d) The masses of the reactants and products involved in the reaction



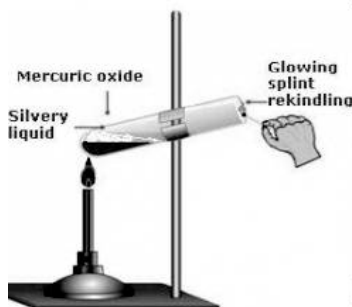
- 1) a, c and d                      2) b, c, and d                      3) b and c                      4) d only

16. Which of the following statements are true for pure substances?

- i) Pure substances contain only one kind of particles
- ii) Pure substances may be compounds or mixtures
- iii) Pure substances have the same composition throughout

- 1) (i) and (ii)                      2) (i) and (iii)                      3) (ii) and (iii)                      4) Only (iii)

17. The picture given below shows the decomposition of mercuric oxide. Which one of the following is the correct conclusion?



- 1) The liquid is Hg and the gas evolved is oxygen
- 2) The liquid is  $\text{Hg}(\text{OH})_2$  and the gas evolved is hydrogen
- 3) The liquid is  $\text{Hg}_2(\text{OH})_2$  and the gas evolved is oxygen
- 4) The liquid is Hg and the gas evolved is hydrogen

**Multi Correct Answer Type :**

**3 × 3 = 9M**

18. Which of the following are isobaric pairs ?

- 1)                      2)                      3)                      4)



24. Match the following and select the correct option given below.

**Column - I**

- a) Meristem
- b) Parenchyma
- c) Collenchyma
- d) Sclerenchyma
- e) Epidermal tissue

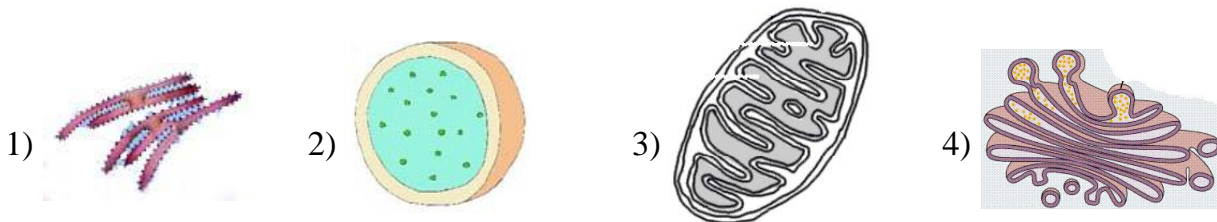
- 1) a-p, b-r, c-t, d-q, e-s
- 3) a-q, b-s, c-t, d-p, e-r

**Column - II**

- p) Storage
- q) Mechanical tissue
- r) Actively dividing cells
- s) Stomata
- t) Sclereids

- 2) a-r, b-p, c-q, d-t, e-s
- 4) a-t, b-s, c-r, d-q, e-p

25. Which organelle functions as a storage and packing site?



26. Match the items of column-I with that of column-II.

**Column-I**

- a) Diffusion of solvent
- b) Diffusion of fluid material
- c) Release of material from cells
- d) Intake of solid particles
- e) Expenditure of energy

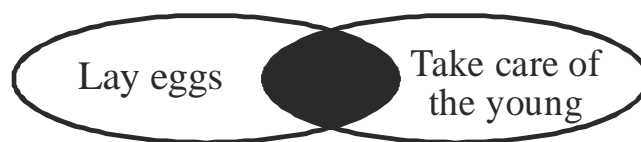
- 1) a-s, b-t, c-p, d-r, e-q
- 3) a-s, b-t, c-q, d-r, e-p

**Column-II**

- p) Exocytosis
- q) Active transport
- r) Phagocytosis
- s) Osmosis
- t) Pinocytosis

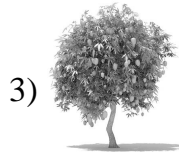
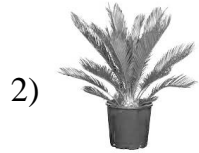
- 2) a-t, b-s, c-p, d-r, e-q
- 4) a-t, b-r, c-p, d-s, e-q

27. Observe the given diagram and choose the animals that represent shaded areas

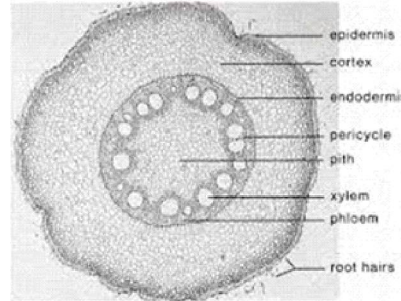
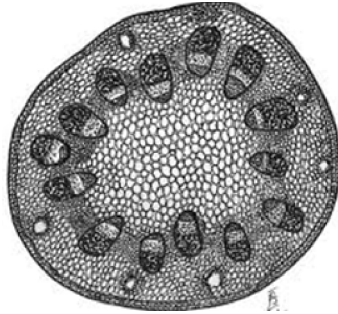


- 1) Chicken
- 2) Tiger
- 3) Platypus
- 4) Bat

28. Which of the following produces naked seeds ?



29. Identify the plant parts whose transverse sections show a clear and prominent pith



1) Dicot stem & Monocot stem

2) Dicot stem & Dicot root

3) Dicot root & Monocot root

4) Dicot stem & Monocot root

30. Which of the following is a main plant body of pteridophytes?

1) Sporophyte

2) Epiphyte

3) Saprophyte

4) Gametophyte

❖❖❖ ALL THE BEST ❖❖❖