



# SIMS<sup>®</sup>

(SCHOLARS INTEGRAL MATHS & SCIENCE OLYMPIADS-HYD)



**BIGGEST STATE LEVEL OLYMPIAD : 2025-26**

**SISO QUESTION PAPER : STAGE - I**

**MAX. MARKS : 90**

**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.

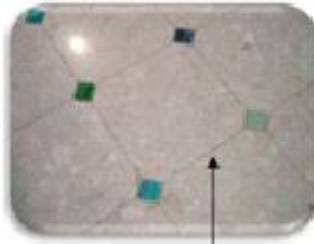


4. **Woollen sweaters have small pores, although they keep us warm because pores contain**
- 1) Moisture that keep us warm
  - 2) Air, which is bad conductor of heat
  - 3) Woollen is warmer in nature
  - 4) Air, which is good conductor of heat
5. **In localities where winter temperature drops below – 40 degree Celsius, the liquid used in liquid-glass thermometer must be**
- 1) Water
  - 2) Mercury
  - 3) Alcohol
  - 4) Oxygen
6. **A thermos flask keeps cold liquids cold and hot liquids hot. How is loss or gain of heat prevented in the flask?**



- 1) Conduction
- 2) Insulation
- 3) Radiation
- 4) Convection

7. Cement floors are laid with glasses between the rectangular floor tile because



Glass

- 1) To give them beautiful design
- 2) Glass holds the tiles firmly
- 3) Not to let the floor tiles crack on heating in the summer
- 4) Glass holds the tiles loosely

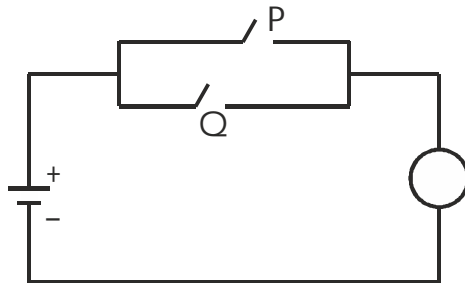
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**Multi Correct Answer Type :**

**3 × 3 = 9M**

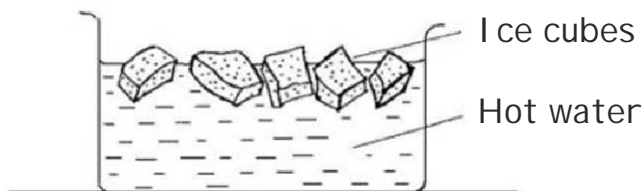
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8. In the given circuit diagram, P and Q are switches. Lamp will glow when



- 1) P is open, Q is closed
- 2) P is closed, Q is open
- 3) P is closed, Q is closed
- 4) P is open, Q is open

9. Which of the following statements are false about convection?
- 1) In solids, heat is transferred only by convection
  - 2) Convection occurs in cold liquids
  - 3) Convections requires a medium for its transmission
  - 4) During convection, heat flows from cold end to hot end
10. Some ice cubes are dropped into a basin of hot water. Which of the following statements is/are true?



- 1) The water starts freezing.
- 2) The water becomes colder.
- 3) The level of the water increases.
- 4) The level of the water decreases.

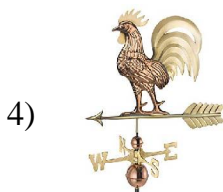
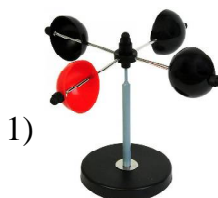
Single Correct Answer Type :

7 × 3 = 21M

11. "X" is present in the stomach. However, presence of excess of it causes indigestion, which requires the intake of milk of magnesia to undo the effect of "X". What is "X" ?

- 1) HCl
- 2) H<sub>2</sub>SO<sub>4</sub>
- 3) NaOH
- 4) KOH

12. \_\_\_\_\_ instrument is used to find the direction of wind at a place.



13. The acid responsible for putting the fizz in fizzy drinks is \_\_\_\_\_.



- 1) Sulphuric acid                      2) Citric acid  
3) Carbonic acid                      4) Nitric acid
14. Choose the incorrect statement about acid.

(i) Acids have a sour taste.

(ii) Acids turn blue litmus red.

(iii) Acids have a soapy feel.

(iv) Acids are non-corrosive in nature.

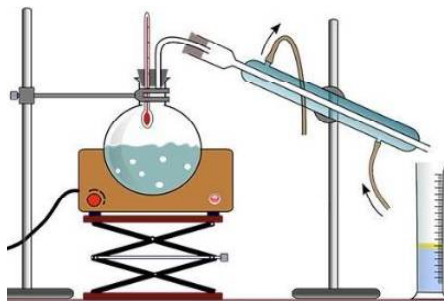
1) (i) and (iv)

2) (ii) and (iii)

3) (i) and (ii)

4) (iii) and (iv)

15. What process are taking places in the given experiment of distillation ?



- 1) Evaporation and condensation
  - 2) Condensation and sublimation
  - 3) Filtration and evaporation
  - 4) Evaporation and decantation
16. Match the following column - I with column - II and choose the correct option .

**Column - I**

**Column - II**

a) Sea water

p) Soluble

b) Water in kerosene

q) Evaporation

c) Source of water

r) Rain water

d) Water in alcohol

s) Insoluble

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

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

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

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

17. The water cycle on Earth can take place repeatedly because water \_\_\_\_\_.

A. Freezes at  $0^{\circ}\text{C}$  and boils at  $100^{\circ}\text{C}$ .

B. Has volume and is not compressible.

C. Is essential for the survival of living things.

D. Can change from one state to another when it gains or loses heat.

1) A only

2) D only

3) A, C and D only

4) A, B, C and D

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**Multi Correct Answer Type :**

**$3 \times 3 = 9\text{M}$**

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18. Choose the correct statements. The increase in the altitude results

1) Decrease in the temperature

2) Increase in the temperature

3) Decrease in the pressure

4) Increase in the pressure

19. Wood is burnt in the atmospheric air. Choose the correct statements about the reaction:

1) Carbon dioxide gas is evolved during reaction

2) Heat energy is released during reaction

3) Nitrogen gas does not support burning

4) Oxygen gas supports burning

**20. Which of the following is/are correct statements ?**

- 1) The ratio of hydrogen and oxygen in water by weight is 1:8
- 2) The impure water is rain water
- 3) Boiling point of water is increased due to the dissolved impurities
- 4) Water is useful for the metabolic reactions

**Single Correct Answer Type :**

**10 × 3 = 30M**

**21. Match Column-I with Column-II and select the correct option from the codes given below :**

**Column - I**

**Column - II**

a) Plant fibre

i) Fabric

b) Twisted fibre

ii) Cotton

c) Synthetic fibre

iii) Silk

d) Animal fibre

iv) Yarn

e) Clothing material

v) Nylon

1) a-(ii), b-(iii), c-(v), d-(i), e-(iv)

2) a-(iii), b-(iv), c-(ii), d-(v), e-(i)

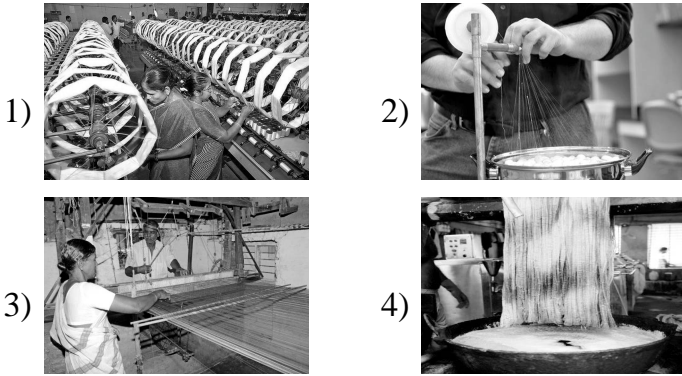
3) a-(ii), b-(iv), c-(v), d-(iii), e-(i)

4) a-(i), b-(ii), c-(iii), d-(v), e-(iv)

**22. Parasitic plant produce special structure to absorb food is called:**

- 1) Tendril
- 2) Mast cell
- 3) Root hair
- 4) Haustoria

23. The picture that show weaving is



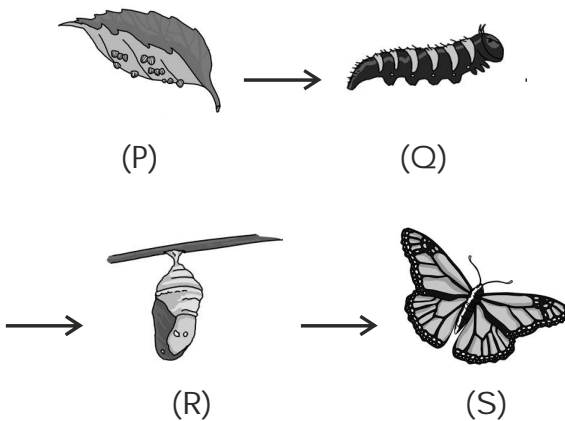
24. Which nutrients are stored in the body for a long time ?

- 1) Carbohydrates
- 2) Fats
- 3) Fibres
- 4) Proteins

25. Which mineral is required for healthy teeth and bones ?

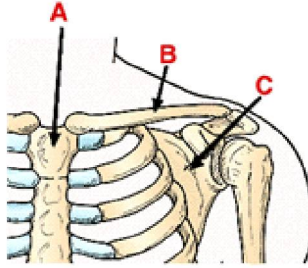
- 1) Silver
- 2) Calcium
- 3) Gold
- 4) Iron

26. At which stage of silkworm metamorphosis, silk threads are obtained ?



- 1) P
- 2) Q
- 3) S
- 4) R

27. Name the parts A, B and C in the diagram ?



- 1) A = Sternum, B = collar bone, C = vertebra.
  - 2) A = collar bone, B = vertebra, C = shoulder blade.
  - 3) A = Sternum, B = collar bone, C = shoulder blade.
  - 4) A = Rib, B = Sternum, C = shoulder blade.
28. If a plant is grown only in sand (S), only in clay (C) or only in humus (H), which of the following will be true ?
- (i) Water availability to the roots will be more in (C) and (H) as compared to (S).
  - (ii) Nutrient availability will be more in (C) and (H) as compared to (S).
  - (iii) Oxygen availability will be low in (C) as compared to (S) and (H).
  - (iv) The ability of roots to penetrate (S) and (H) will be low as compared to (C).

- 1) (i) only
- 2) Both (ii) & (iii)
- 3) Both (i) & (iv)
- 4) (i), (ii) & (iii)

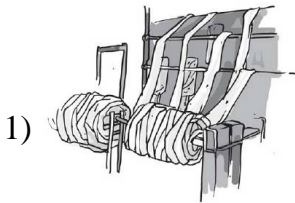
29. The table given shows the results of food tests carried out on a food sample.

Food test	Result
1. A few drops of iodine is added to the food sample	It turns blue - black
2. A few drops of sodium hydroxide and copper sulphate solution is added to the food sample	It turns to purple colour

Which of the following could be the tested food sample in 1 & 2 ?

- 1) Egg and meat
- 2) Bread and jam
- 3) Milk and butter
- 4) Starch powder and albumen

30. Observe the diagrams and identify the stage of wool production.



❖❖❖ ALL THE BEST ❖❖❖