INDIAN SCHOOL AL WADI AL KABIR

PRE-MID TERM EXAMINATION (2024-25)

CLASS: VII **Sub: SCIENCE** **MAX.MARKS: 30**

DATE: 28/05/2024 **Set - I** **TIME: 1 HOUR**

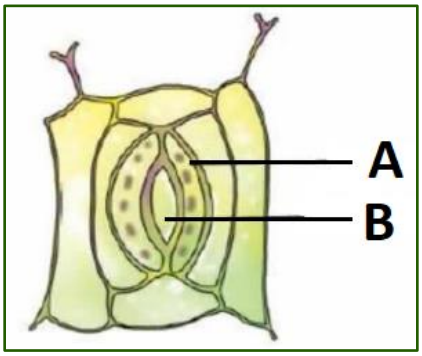
General Instructions:

i. All questions are compulsory. Marks are indicated against each section.
*ii. The question paper comprises of **4** pages and **15** questions in 5 sections A, B, C, D and E.*
*iii. Q 1 to Q 4 in **section A** -MCQ type and carry ONE mark each. Write the correct answer along with the option in the answer script.*
*iv. Q 5 to Q 7 in **section A** -Assertion and Reason type and carry ONE mark each.*
*v. Q 8 to Q 10 in **section B** are short Answer Type Questions and carry TWO marks each.*
*vi. Q 11 TO Q 13 in **section C** are Short Answer Type Questions and carry THREE marks each.*
*vii. Q 14 in **section D** is a Long Answer Type Question and carries FIVE marks.*
*viii. Q 15 in **section E** is a Case study/paragraph-based Question and carries THREE marks.*
ix. Write the same question number as given in the question paper.
x. Whitener should not be used in the answer script.
xi. Diagrams should be drawn using a pencil.

SECTION - A **(7×1=7)**

1. A student takes a green leaf from the plant and boils it in an alcohol bath for removal of chlorophyll. After this treatment, the student adds a few drops of iodine to the boiled leaf using syringe dropper. After some time, the student observes that the leaf turns blue-black in colour. What can be evaluated from this?
   a) The iodine reacts with the starch present in the leaf which indicates the occurrence of photosynthesis.
   b) The iodine reacts with water present in the leaf which indicates the occurrence of photosynthesis.
   c) The iodine reacts with the oxygen present in the leaf which indicates the occurrence of photosynthesis.
   d) The iodine reacts with carbon dioxide present in the leaf which indicates the occurrence of photosynthesis.

2. Observe the diagram given in the figure below and label the parts marked.



a) A- Leaf cell, B- Stomatal opening

b) A- Guard cell, B- Stomatal opening

c) A- Guard cell, B- Leaf cell

d) A- Stomatal opening, B- Guard cell

3. Priya and Amar measured their body temperature. They try to find the body temperature by using different scales. Priya found her temperature to be 98.6°F and Amar recorded 37°C. Which among the following statements is true?

a) Priya has a higher body temperature than Amar.

b) Priya has a lower body temperature than Amar.

c) Both have normal body temperature.

d) Both are suffering from fever.

4. A wooden spoon is dipped in a cup of hot tea. Its other end –

a) Becomes hot by the process of conduction.

b) Becomes hot by the process of convection.

c) Becomes hot by the process of radiation.

d) Does not become hot.

For the following questions, two statements are given- one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (i), (ii), (iii), and (iv) as given below

i) Both A and R are true and R is the correct explanation of the assertion.

ii) Both A and R are true but R is not the correct explanation of the assertion.

iii) A is true but R is false.

iv) A is false but R is true

5. **Assertion (A):** All plants are autotrophic.
   Reason (R): Non-green plants lack chlorophyll.

6. **Assertion (A):** The materials which allow heat to pass through them easily are conductors of heat.
   Reason (R): Aluminum is a poor conductor of heat.

7. **Assertion (A):** All hot bodies radiate heat.
   Reason (R): When heat falls on an object, a part of it is reflected, a part is absorbed and a part may be transmitted.

SECTION - B **(3×2=6)**

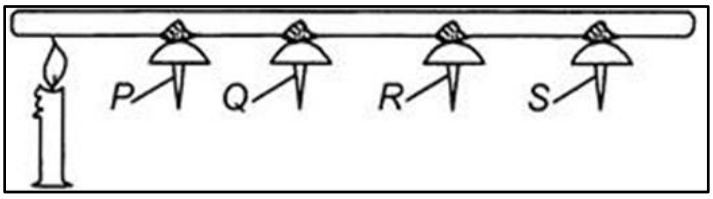
8. How do saprophytes obtain their nutrition?

9. a) Write **any two** precautions to be taken while measuring the temperature using a **laboratory thermometer**.
   b) What is the role of 'kink' in a clinical thermometer?

10. **Give reasons for the following**:
    a) Room heaters are placed on the floor of a room or at a lower level.
    b) A clinical thermometer has a range between 35˚C to 42˚C.

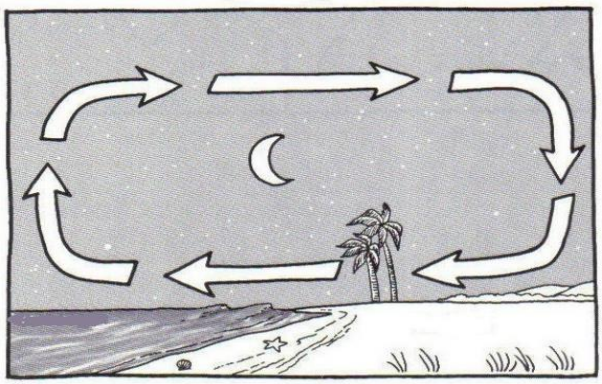
SECTION - C **(3×3=9)**

11. Draw a neat and labelled diagram of photosynthesis. State the **word equation** for the process of photosynthesis.
12. a) Explain the symbiotic relationship in lichens.
    b) Pitcher plants are green in colour and can photosynthesise but still it feeds on insects. Give reason.
13. a) Paper pins are stuck to a metal rod with wax and a lighted candle is kept below the rod as shown in the diagram below –



i) Which one of the paper pins will fall off the metal rod first?
ii) **Identify and define** the mode of transfer of heat.

b) Which phenomena is given in the diagram? **Explain** the phenomena.



SECTION - D **(1×5=5)**

14. a) Write one point of difference between autotrophic and heterotrophic nutrition.
    b) Explain why fertilisers and manures are required to be added to the soil periodically.
    c) What is the role of rhizobium bacteria in leguminous plant.

SECTION - E **(3×1=3)**

15. *Read the passage and answer the following questions:*

The flow of heat from one object to another with or without a medium is called the transfer of heat. Heat always flows from a body at a higher temperature to another body at a lower temperature. In winter you feel cold inside the house. If you come out in the sun, you feel warm. In summer, you feel hot even inside the house.

Why it is more comfortable to wear white or light-coloured clothes in the summer and dark-coloured clothes in the winter? Dark surfaces absorb more heat and, therefore, we feel comfortable with dark coloured clothes in the winter. Light coloured clothes reflect most of the heat that falls on them and, therefore, we feel more comfortable wearing them in the summer. In the winter, we use woollen clothes. Wool is a poor conductor of heat. Moreover, there is air trapped in between the wool fibres. This air prevents the flow of heat from our body to the cold surroundings. So, we feel warm.

i) Why do we wear light coloured cotton clothes in summer?
ii) How do woollen clothes keep us warm in winter?
iii) What is meant by heat transfer? Explain.