

**DAV PUBLIC SCHOOLS, ODISHA**  
**PERIODIC TEST - I (2023-24)**

- Please check that this question paper contains 2 printed pages.
- Check that this question paper contains 19 questions.
- Write down the Serial Number of the question in the left side of the margin before attempting it.

**CLASS- VII**  
**SCIENCE**

**Time Allowed: 1hrs 30 min**

**Maximum Marks: 40**

**General Instructions:**

- i. All questions are compulsory.
  - ii. Qsn No. 1 to 8 are very short type questions of 1 mark each.
  - iii. Qsn No. 9 is assertion/reason type questions of 1 mark each.
  - iv. Qsn No. 10 is a case based questions, having 4 MCQ carrying 1 mark each.
  - v. Qsn No. 11 to 14 are short answer type questions, carrying 2 marks each.
  - vi. Qsn No. 15 to 17 are long answer type questions, carrying 3 marks each.
  - vii. Qsn No. 18 and 19 are long answer type question, carrying 5 mark.
- In addition to this, separate instructions are given with each question, wherever necessary.

**Answer the following questions in one word or one line.**

**(1 X 8 = 8)**

1. Write the chemical equation for photosynthesis.
2. Balance the following chemical equation:  
$$\text{Na} + \text{Cl}_2 \rightarrow \text{NaCl}$$
3. Identify the mode of transfer of heat in which medium is not required.
4. Write the name of bacterium which present in the roots of leguminous plants.
5. Write names of two elements found in liquid state at room temperature.
6. We are advised not to wear black clothes in summer season. Why?
7. State the role of vessels in plants.
8. Write the chemical formulae of Quick lime.

**9. Read the given assertion and reason question and choose the correct option from the following.**

**(1)**

Assertion: When we keep a hot cup of tea on table it cools after sometime.

Reason (R): Heat always transfers from a body of low temperature to a body of high temperature.

- (a) Both A and R are true but R is the correct explanation of assertion.
- (b) Both A and R are true but R is not correct explanation of assertion.
- (c) A is true but R is false.
- (d) A is false but R is true.

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

**(1 X 4 = 4)**

Plants synthesize carbohydrates through the process of photosynthesis. The carbohydrates are made of carbon, hydrogen and oxygen. These are used to synthesize other components of food such as proteins and fats. But proteins are nitrogenous substances which contain nitrogen. Nitrogen is present in abundance in gaseous form in the air. However, plants cannot absorb nitrogen in this form. Soil has certain bacteria that convert gaseous nitrogen

into a usable form and release it into the soil. These are absorbed by the plants along with water. Also, you might have seen farmers adding fertilizers rich in nitrogen to the soil. In this way the plants fulfill their requirements of nitrogen along with the other constituents. Plants can then synthesize proteins and vitamins. The desert plants have scale or spine-like leaves to reduce loss of water by transpiration. These plants have green stems which carry out photosynthesis.

- (i) Identify the nitrogen containing compound?  
 (a) Carbohydrates      (b) Hydrogen      (c) Oxygen      (d) Proteins
- (ii) Which organisms convert gaseous nitrogen into a usable form?  
 (a) Earthworm      (b) Cattle      (c) Microbe      (d) Insect
- (iii) In absence of leaves the desert plants carry out photosynthesis through  
 (a) Spines      (b) Stem      (c) Root      (d) Flower
- (iv) In desert plants the loss of water reduced by the process of  
 (a) Transpiration      (b) Respiration      (c) Photosynthesis      (d) Translocation

**Answer the following questions in brief:** **(2 X 4 = 8)**

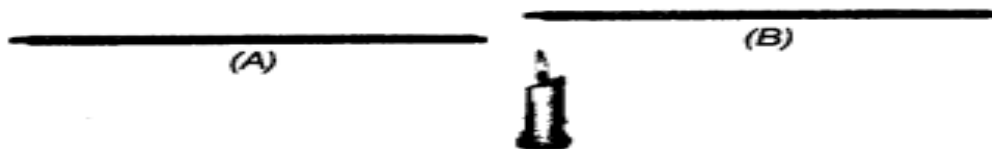
11. The organ A of a tree has a large number of tiny pores called B on their surface. Each pore is surrounded by a pair of cells called C. The opening and closing of pores in A is controlled by C. The gas D present in air enters the organ A through pores B and is utilized in food making. Identify A, B, C and D.
12. Define saprotrophic mode of nutrition. Give one example.
13. Write the symbolic form of following ions: (a) Carbonate      (b) Chloride
14. Differentiate between laboratory thermometer and clinical thermometer (any two).

**Answer the following questions briefly:** **(3 X 3 = 9)**

15. How are nutrients replenished in the soil?
16. Classify the following reactions into different types:  
 i.  $\text{SiO}_2 + \text{CaO} \rightarrow \text{CaSiO}_3$   
 ii.  $\text{HCl} + \text{KOH} \rightarrow \text{H}_2\text{O} + \text{KCl}$   
 iii.  $\text{BaCO}_3 \rightarrow \text{BaO} + \text{CO}_2$
17. Write any three precautions to be taken while reading a clinical thermometer.

**Answer the following long answer type questions:** **(5 X 2 = 10)**

18. i. Draw a labeled diagram of land and sea breeze.  
 ii. A laboratory thermometer A is kept 7cm away on one side of a burning flame and another thermometer B is kept 7cm above the flame as shown below. Which will show greater rise in temperature and Why?



19. (a) Define displacement reaction.  
 (b) Write a balanced chemical equation which shows displacement reaction.  
 (c) From the above chemical equation identify the element displaced from the compound in the product.

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