



**K.P.C PUBLIC SCHOOL, KHARGHAR**  
**ASSESSMENT I 2023-24**

**GRADE: VII**  
**SUBJECT: SCIENCE**

**MARKS :50**  
**TIME: 2 Hrs.**

**SECTION – A**

**A] Tick (✓) the correct answer:**

**(1 x 10=10)**

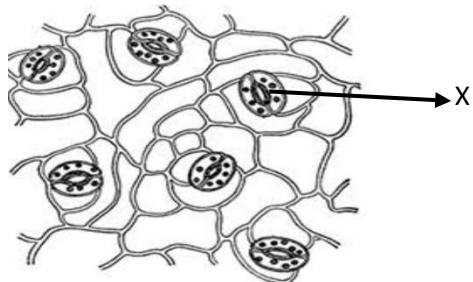
1. Paheli and Boojho measured their body temperature. Paheli found her's to be 98.6°F and Boojho recorded 37°C. Which of the following statement is true?

- (a) Paheli has a higher body temperature than Boojho.
- (b) Paheli has a lower body temperature than Boojho.
- (c) Both have normal body temperature.
- (d) Both are suffering from fever.

2. On adding phenolphthalein solution to a colourless solution, no change is observed. What is the nature of this solution?

- (a) Basic
- (b) Either acidic or basic
- (c) Either acidic or neutral
- (d) Either basic or neutral

3.



Observe the part X of the plant shown in the figure given above. It helps in performing

- (a) photosynthesis
- (b) respiration
- (c) transpiration
- (d) All of the above

4. The chemical formula  $\text{Ca}(\text{OH})_2$  represents which of the following base?

- (a) Sodium hydroxide
- (b) Calcium hydroxide
- (c) ammonium hydroxide
- (d) Zinc hydroxide

5. Read the given statements and select the correct option.

Statement 1: Acids are sour in taste while bases are bitter in taste.

Statements 2: Baking soda does not taste sour.

- (a) Both statements 1 and 2 are true and statement 2 is the correct explanation of statement 1
- (b) Both statements 1 and 2 are true but statement 2 is not the correct explanation of statement 1
- (c) Statement 1 is true and statement 2 is false
- (d) Both statements 1 and 2 are false

6. Which organisms take their food in solution form from dead and decaying matter?

- (a) Insectivorous plants
- (b) Saprophytes
- (c) Autotrophs
- (d) Parasites

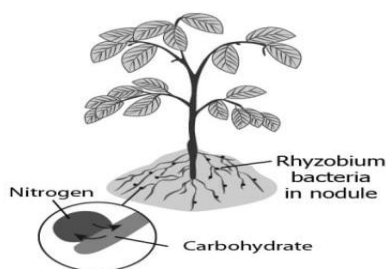
7. Turmeric is a natural indicator. On adding its paste to acid and base separately, which colours would be observed.

- (a) Yellow in both acid and base
- (b) Yellow in acid and red in base
- (c) Pink in acid and yellow in base
- (d) Red in acid and blue in base

8. No medium is required for transfer of heat by the process of

- (a) Absorption
- (b) Convection
- (c) Conduction
- (d) Radiation

9. A farmer observes the growth of Rhizobium on the roots of its plants as shown.



How will this likely benefit the farmer?

- (a) It will increase the growth of unwanted plants.
  - (b) It will increase the use of manures in the field.
  - (c) It will reduce the need of nitrogenous fertilisers in the field.
  - (d) It will reduce the need for raw material by the plants to prepare their own food.
10. Boojho has three thermometers as shown in figure. He wants to measure the temperature of his body and that of boiling water. Which thermometer(s) should he choose?



(i)



(ii)



(iii)

- (a) Thermometers (i) and (iii) for measuring body temperature and (ii) for measuring the temperature of boiling water.
- (b) Thermometer (i) for measuring temperature of both
- (c) Thermometer (ii) for measuring temperature of both
- (d) Thermometer (iii) for measuring temperature of both

**B] Fill in the blanks:**

(1 x 7 = 7)

- 11. Methyl Orange is an \_\_\_\_\_.
- 12. The normal temperature of human body is \_\_\_\_\_<sup>0</sup>C.
- 13. The effect of an ant bite can be neutralised by rubbing moist \_\_\_\_\_.
- 14. The range of laboratory thermometer is \_\_\_\_\_.
- 15. Plants like cuscuta take food from \_\_\_\_\_ plant.
- 16. Temperature is measured in degree \_\_\_\_\_.
- 17. In photosynthesis solar energy is absorbed by the pigment called \_\_\_\_\_.

**C] True or False:**

(1 x 7 = 7)

- 18. The range of clinical thermometer is 35°C to 42°C.
- 19. Solar energy is converted into chemical energy during photosynthesis.
- 20. The maximum and minimum temperature of the day is measured by a laboratory thermometer.
- 21. Acetic acid is present in vinegar.
- 22. Orange juice turns blue litmus red.
- 23. Carbon dioxide is not required for photosynthesis.
- 24. Plants take atmospheric nitrogen through stomata and utilize as a nutrient.

**SECTION - B**

**D] Short Answer Type Questions:**

(3 x 2 = 6)

- 25. Write any two differences between the laboratory thermometer and the clinical thermometer.

26. Define heterotrophs. Why are the plants called autotrophs?  
 27. Complete the following chemical reaction. What does X and Y stand for?  
 Acids + Base  $\longrightarrow$  X + Y

### SECTION – C

#### E] Short Answer Type Questions: (ANY 3)

(3 x 3 = 9)

28. Explain neutralisation reactions related to daily life situations.  
 29. Write any three precautions to be observed while reading a clinical thermometer.  
 30. Explain mechanism of insect eating by pitcher plant with the help of diagram.  
 31. Write a short note on Radiation.

### SECTION – D

#### F] Long Answer Type Questions: (Any 1)

(1 x 5 = 5)

- 32.a) Distinguish between a parasite and a Saprotroph.  
 b) What is the mode of nutrition in fungi?

OR

- 33.a) What are acids and bases?  
 b) Mention three important characteristics of acids and three important characteristics of bases.

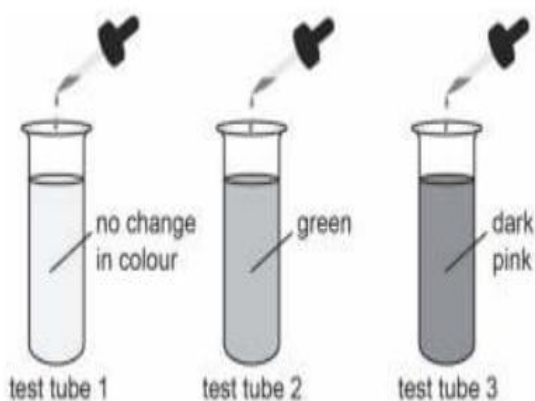
### SECTION – E

#### G] Case-study based/ Data based questions:

(1 x 6 = 6)

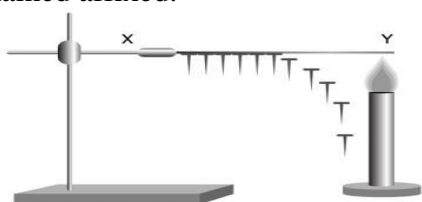
**34.i.** China rose is a natural indicator of acids and bases.

Zeenat takes 10 ml of three colourless liquids in separate test tubes. She adds 5 drops of china rose indicator to each test tube. The pictures show the colour of the liquid in each test tube after the addition of indicator.



- a. Which test tube contains liquid soap?  
 b. Test tube 1 contains basic solution as there is no change in colour. True or False  
 c. Which test tube contains acidic solution?  
 d. China rose indicator turned \_\_\_\_\_ in a basic solution.  
 e. The respective solutions in test tubes 1,2 and 3 are  
 i. Sugar solution, lime water, baking powder  
 ii. lemon juice, sugar solution, limewater  
 iii. sugar solution, liquid soap, lemon juice  
 iv. none of the above

**ii)** Several nails were attached to a metallic rod, through its length by using drops of wax as adhesive. This rod was placed horizontally with one end subjected to the flame of a burner, as depicted, below. Nails closer to point Y begin to fall. If the burner is removed after a short while, nails closer to point X, remained affixed.



Which end of the rod is hotter, and why?

