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Note:-

1. All Questions are compulsory.
2. Numbers on the right indicate full marks.

Section A

Q.1 Select and write the correct answer.

(4)

1. Water exudation through hydrothodes is _____.
A) guttation B) hydrolysis
C) transpiration D) excretion
2. Osmosis is a property of _____.
A) solute B) solvent
C) solution D) membrane
3. Which one of the following is most widely accepted explanation for ascent of sap?
A) capillary B) atmospheric pressure
C) pulsation activity D) transpiration pull
4. Which of the following type of solution has lower level of solutes than the solution?
A) Isotonic B) Hypotonic
C) Hypertonic D) Anisotonic

Q.2 Answer the following.

(3)

1. Which parts of plants are need mineral ions?
2. What is hydrogen bond?
3. Define or explain the term: Root Pressure.

Section B

Attempt any Four

- Q.3 What are the meaning of specific heat, heat of vaporization and heat of fusion **(2)**
- Q.4 If you take 10 ml of pure water and add 5 g of either sugar or salt to it. Let it dissolve and then put the same turgid raisins in it and observe the changes in raisins. What changes did occur in raisins and why? **(2)**
- Q.5 Name the respective mineral nutrient element that,
(a) is essential for chlorophyll synthesis (b) is a constituent of middle lamella (c) maintains ribosome structure (d) catalyzes oxidation reduction reactions (e) is involved in nitrogen metabolism (f) facilities the translocation of sugars **(2)**
- Q.6 What are the types of osmosis? **(2)**
- Q.7 Write a note on: Lateral translocation of food. **(2)**
- Q.8 Enlist macronutrients and micronutrients required for plant growth. **(2)**

Section C
Attempt any Two

- Q.9 Why is transpiration called 'a necessary evil'? (3)
- Q.10 Explain the concept of permeability. (3)
- Q.11 Define or explain the term: Plasmolysis. (3)

Section D
Attempt any One

- Q.12 Write on journey of water from soil to xylem in roots. (4)
- Q.13 Give the properties of water. (4)