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Jars Education

Shop no. 2,3,4 hendre pada Badlapur west thane

Time : 1 hour 15 Minute

STD 11 Science Biology
Chapter Based Test

Total Marks : 40

SECTION A

* Choose The Right Answer From The Given Options.[1 Marks Each] [11]

1. Water logging of soil makes it physiologically dry because:
   (A) This condition does not allow the capillary force to work.
   (B) Both.
   (C) This condition does not allow oxygen to enter the soil.
   (D) None of the above.
2. Mark the mismatched pair.
   (A) Amyloplast – Store protein granule
   (B) Elaioplast – Store oils or fats
   (C) Chloroplasts- Contain chlorophyll pigments
   (D) Chromoplasts – Contain coloured pigments other than chlorophyll
3. The movement of mineral ions into plant root cells as a result of diffusion is called:
   (A) Passive absorption. (B) Active absorption.
   (C) Osmosis. (D) Endocytosis.
4. Which of the following will have higher concentration of solute?
   (A) Isotonic solution.
   (B) Hypotonic solution.
   (C) Hypertonic solution.
   (D) Solution with high water potential.
5. Swelling of wooden frames during rains is caused by:
   (A) Endomosis (B) Imbibition (C) Capillarity (D) Osmosis
6. Water enters a cell due to:
   (A) OP (B) SP (C) TP (D) WP
7. When a plant is girdled (ringed).
   (A) The root and shoot die at the same time.
   (B) The shoot dies first.
   (C) The root dies first.
   (D) Neither root nor shoot will die.
8. What shall be the sequence of events during wilting of a plant:
   (A) Exosmosis, deplasmolysis, wilting
   (B) Endosmosis, plasmolysis, wilting
   (C) Exosmosis, plasmolysis, wilting

(D) Endosmosis, deplasmolysis, wilting

9. A professor kept some moist seeds in an airtight jar and started lecturing.At the end of the experiment, an explosion occurred in the jar. What did the professor want to explain:

(A) Osmosis (B) Diffusion

(C) Anaerobic respiration (D) Imbibition

10. Turgor pressure become equal to the wall pressure when:

(A) Solute goes from cell into water.

(B) Water enter the cell.

(C) Water leaves the cell.

(D) No exchange of water takes place.

11. Mainly conduction of water in an angiosperm occurs through.

(A) Tracheids. (B) Xylem vessels.

(C) Sieve tubes. (D) All of these.

SECTION B

*** Given Section consists of questions of 2 marks each.** **[10]**

1. How does mass/ bulk flow of substances differ from diffusion?
2. Mention the properties of transport proteins of the membrane.
3. Differentiate between turgor pressure and osmotic pressure.
4. Distinguish between exosmosis and endosmosis.
5. Define turgor pressure. Mention the uses of turgor pressure to plants.

SECTION C

*** Given Section consists of questions of 3 marks each.** **[9]**

1. Facilitated diffusion involving membrane proteins is categorised under passive transport. Why? Also draw a neat and labelled diagram showing facilitated diffusion.
2. Akanksha, while walking in the garden in the morning with her mother observed two water drops falling on the ground. She thought that it is raining. Being curious, she started finding the source of the watery fluid. Then she observed drops falling from the leaves tip. She asked her mother, who was a botanist about this. The mother explained her that it is not due to the rain instead the water drops are dripping due to the phenomenon called guttation.
   i. What are hydathodes? Why are these called water glands?
   ii. Where are hydathodes present?
   iii. Name the process of water loss occurring via hydathodes.
   iv. What value is displayed by Akanksha's nature?
3. "The movement of water is through transpiration pull." Discuss if this statement is 100% true. Give explanation for your answer.

SECTION E

*** Given Section consists of questions of 5 marks each.** **[10]**

1. Describe the views expressed under root pressure and transpiration pull regarding rise of water in plants.
2. Why is solute potential always negative? Explain yw = ys + y

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