

Biology (New Book) - 9th Class Biology Urdu Medium Chapter 9 Preparation

Q1. Define Transpiration.

Ans 1: Define:

The loss of waer in the form of vapours from plant surface is called transpiration.

Q2. Define Minieral nutrition in plants.

Ans 1: Plants get eheir food from a process celled photosytheisis. But for the synthesis of other biomolecules, they need other materials from soil. Such materials are called mineral nutrienss and the process through which these special chemials absorbed from soil that ar eessential for the plants to grow is called mineals nutrition.

Q3. Define Cohesion.

Ans 1: Cohesion is the attraction between nearby water molecules, which is possible because water is a polar molecule.

Q4. State the roles of nitrogen and magnesium in plants.

Ans 1: Nitrogen:

- i. Nitrogen is a necessary prt of all proteins, enzymes, nucleic acids and chlorophyll.
- ii. Nitrogen helps plants for rapid growt, increasing seed and fruit production and improving the quality of leaf
- iii. Platn roots absorb nitrogen in the form of nitrates
- iv. Carnivorous plants fulfil their needs of nitrogen from the prey animals.

Ans 2: Magnesium:

- i. Magnesium is part of the chlorophyll.
- ii. It also activates many plant enzymes needed for growth.
- iii. It also helps in fruit formation and geermination of seeds.
- iv. Plant roots absorb magnesium in ionic form.

Q5. How do the plants of rubber and keekar excrete their wastes.

Ans 1: Plants deposit many metabloic wastes in their bodies as harmless insoluble materials.

- i. Latex are removed by rubber plants.
- ii. Gums are removed by keekar.

Q6. Difference between Stomatal Transpiration and Lenticular transpiration.

Ans 1: Stomatal Transpiration:

Most of the transpiration occurs through stomata and is called stomatal transpiraton. In leavves, water moves from the exylem into the cell walls of mesophyll cells.

Ans 2: Lenticular Transpiration:

This is the water loss of plant in form of vapours by the lenticels present on the bark of woody stems.

Q7. Difference between Transpiraton and Guttaion

Ans 1: Transpiration:

1. Plants absorb waer from the soil by the roots. This absorbed water moves in the aerial parts of the plant from where the most of this water has been lost in the form of vapours into the atmosphere.

This loss is called transpiration.

- ii. Transpiration always occur against the gravity
- iii. Transpiration involves mainly the xylem cells.

Ans 2: Guttation:

- i. The appearance of drops of water on the tips or edges of leaes is called guttation.
- ii. Guttation is not to be confused with dew which condenses from the atmosphere on to the plant surfce.
- iii. Some plants such as sea grasses and strawberry force this wate throuth special pores present at leaf tips or edges and form drops.

Q8. How is transpirational pull importnat in plants.

Ans 1: Transpiration creates a pull called transpiration pull which is principally repponsble for the conduction of wate and salsts from roots to the aerial part of the plant body.

Q9. Difference between hydrophytes and xerophytes.

Ans 1: Hydrophytes:

- i. They live in water -rich environmetns.
- ii. Rae of transpiation is bighest
- iii. Stomata are present on the upper surface of leaf.
- iv. These plants have thing cuticl
- v. The most common example of such plants is wate lily.

Ans 2: Xerophytes:

- i. These plants are adapted to extreme dry conditions.
- ii. They exhibit lowest rate of transpiration.
- iii. Xerophytes possess sunken stomata.
- iv. Thick cuticle is present in them
- v. Cacti etc.

Q10. Define osmoregulation.

Ans 1: It is define das th maintencacnce of the amounts of water and salss in body fluids i.e. blood and tissue fluids, e.g. blood glucose level remains about 1g /L despite eating a meal rich in carbohydrates.