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

Q1. Define Adhesion

Ans 1: Adhesion is the attraction between water molecules and other substances. Water is strongly attracted to the walls of the exylem cells because both water and cellulose are polar molecules. This adhesion helps water move upward inthe plant against gravigy. It also keeps water in the exylem when trnaspiation is not happening.

Q2. Difference between guard cells and epidermal cells.

Ans 1: Guard cells:
A pair of guard cells form a stoma, which is involved in the gas exchange of plants.

Ans 2: Epidermal cells:
Epidermal cells provide a protection to the plant from the xternal environment.

Q3. Define Cohesion.

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

Q4. 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.

Q5. Differece between autotrophic and heterophic organismsm.

Ans 1: Autotrophic Organisms.
Define:
Autotrophic organismsm obtain water, carbon dioxide and minerals from their environment and prepare their food.
Example:
Some bacteria, all algae, and all plants.

Ans 2: Heterotrophci Organisms

Define:
Heterotrophci organismsm obtain their food from other organisms
Example:
Most bacteria, and all protozonans, fungi and animals

Q6. Define Vascular bundle

Ans 1: There are two types of compound tissues in plants a .exylem b. phloem.
Together they form the vascular bundles. Both exylem and phloem are composed of mor ethan one types of cells. Xylem tissue is responsibel for the transport of watr and dissolved substances from roots to aerial parts. Phloem ar eresponsible for the condiction of dissolved organic matter between different parts of plant body .

Q7. Differenc between nutrition and nutrients.

Ans 1: Nutrition:
Nutrition means the processes in whch food is prepared or obtained and converted into body substances for growth and energy

Ans 2: Nutrients:
Nutrients are teh substances required by organisms for energy, growth, repair , and maintenances.

Q8. 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 throgh which these special chemials absorbed from soil that ar eessential for the plants to grow is called mineals nutrition.

Q9. What is transport in plants?

Ans 1: Definition :
Transport eans the movement of substances, such as water, nutrients, hormones, and waste products within an organism.

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.
