

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

Q1. State the roles of nitrogen and magnesium in plants.

**Ans 1:** Nitrogen is a component of proteins, chlorophyll and enzymes. It catalyzes biochemical reactions within plant cells. Magnesium is a component of chlorophyll; it activates many enzymes.

Q2. How does the balance between photosynthesis and respiration affect gas exchange during the day and night.

**Ans 1:** During the day, leaves are releasing oxygen and taking carbon dioxide from the environment. During the night, all cells are carrying out respiration while taking in oxygen and releasing carbon dioxide.

Q3. Define Osmosis

**Ans 1:** It is the movement of water molecules through a semi-permeable membrane from a region of lower solute concentration to a region of higher solute concentration.

Q4. What is transport in plants.

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

Q5. Define Autotrophic

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

Q6. Difference between epidermis and root hairs.

**Ans 1:** Epidermis:  
The outermost covering of the root is called epidermis. It is a single layer of cells.  
Root Hairs:  
Many cells of epidermis have tiny hair-like extensions into the space among soil particles. These extensions are called root hairs.

Q7. Define Diffusion

**Ans 1:** It is the movement of molecules from an area of higher concentration to an area of lower concentration, until they are evenly spread out. In organisms, the diffusion of molecules is of two types.  
Passive transport  
Active Transport

Q8. How do the plants of rubber and keekar excrete their wastes.

**Ans 1:** Rubber: Rubber plant excretes its waste in the form of latexes.  
Keekar: Keekar platn excretes its waste in the form of gums.

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Q9. Define minerla nutrition in plants.

**Ans 1:** Plants get their food from a process called photosyntheis. But for the synthesis of other biomolecues, they need other materials from soil. Such material are called mineral nutrients and the process through which these special chemicals absorbed from soil that are essentialf or the plants to grow is called mineral nutrition.

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Q10. What is Active transport

**Ans 1:** It is a movemnt of molecules across a cell memebbrane from a low concentration to a high concentration using energy.

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