

* Long Answers converted into spines in the

I Long Answers Questions

1. Why do some plants trap insects, even though they performed photosynthesis? Explain with the help of an example.

Root

- i) The part of plant that grows under the ground.
- ii) Brown in colour
- iii) Grows down wards
- iv) It absorbs water and minerals from soil, water, minerals

Stem

- i) The main part of Shoot system.
- ii) Brown or green
- iii) Grows upwards
- iv) It prepare food and conduct.

Taproot

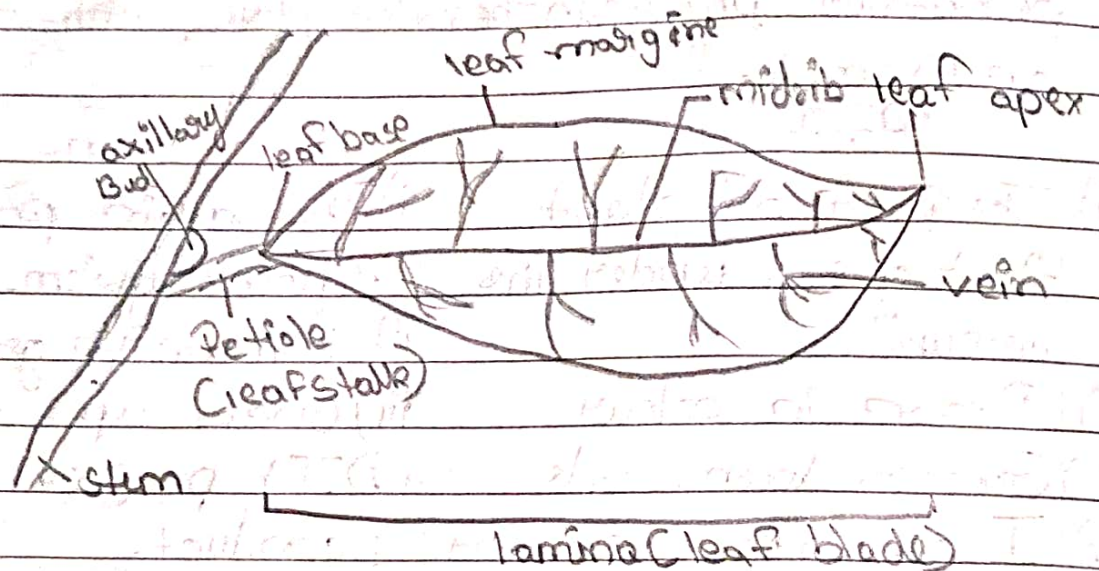
- i) It is made up of primary root and secondary root.
- ii) There roots do not form cluster.
Ex: Gram, and pea.

Fibrous Root

- i) There have many roots of some size arising from stem.
- ii) There forms cluster.
Ex: Maize and grass

2. Describe the main parts of a leaf with labelled diagram, Differentiate between a simple and a compound leaf.

Ans



The flat, thin and green lateral structure attached to the node of a stem is called a leaf.

1. **Petiole**:- The stalk that attaches the leaf to the stem is called a petiole. In some leaves, the stalk is absent, these leaves are called sessile leaves.
2. **Lamina (leaf blade)**:- The flat and broad green part of the leaf is called the lamina or leaf blade. The part of the lamina that is attached to the petiole or stem is called the leaf base. The outline of a lamina is called the leaf margin. The tip of a leaf lamina is to produce food (Photosynthesis).

3. Midrib: The petiole continues into the lamina at the centre as the thick midrib. It has fine branches called veins on both sides. veins form a network and give support to the leaf.

Simple leaf	Compound leaf
* A leaf with single lamina.	* A leaf in which the lamina is divided into leaflets.
* An axillary bud is present on its axis.	* No axillary bud.
Ex:- Mango, peepal, banyan.	Ex:- Rose, neem, Gulmohar,

3. What is meant by venation? Differentiate between reticulate and parallel venation.

Ans	Reticulate venation	Parallel venation
	* When veins form a net like pattern on both side of midrib Ex:- leaves of peepal, china rose.	* When veins run parallel to each other or parallel to the midrib.

4. How does photosynthesis occur? Why is it important?

Ans Sunlight falls on leaves and is absorbed by chlorophyll. sunlight provides energy. this energy is used to split the water molecules (H_2O) into H^+ (Hydrogen) and OH^- (Hydroxyl) ions. It is called photo synthesis of water. After this, the following reactions occur—

1. ~~O~~ Oxygen is released in the air from hydroxyl ions (OH^-).
2. Hydrogen ions (H^+) combine with carbon dioxide to form glucose ($C_6H_{12}O_6$).

Importance

1. Green plants make their food by the process of photosynthesis. In the absence of photosynthesis, there would be no plants.
2. Animals eat plants. These animals are food for other animals. Thus, green plants are the source of food to all living organisms.