

WORKSHEET [The Leaf]

PAGE NO.

DATE: / / 20

A) Objective Questions

b) Fill in the blanks:

- a) The underground part of the plant is called root system.
- b) The ~~part~~ part of the plant which grows above the soil is called shoot system.
- c) Tap root system has a thick main root known as primary root.
- d) The part of the stem between two successive nodes is called internode.
- e) Buds in the top of the shoot is called apical buds.
- f) Apical buds are responsible for the vertical growth of the stem.
- g) The angle between the upper side of the leaf and the stem is known as axil.

- h) Buds found in the axil are called axillary buds.
- i) The basal part of the leaf is petiole.
- j) Leaves directly attached to the stem without a petiole is called sessile leaves.
- k) The green flat and broad part of the leaf is called the lamina.
- l) Petiole continues to the lamina as midrib.
- m) Veins provide a skeleton or supportive framework to the leaves.
- n) During photosynthesis water is combined with carbon dioxide to produce glucose and oxygen.
- o) Plants which trap insects to meet their nitrogen demand are called insectivorous plant.
- p) Leaves of Bryophyllum and Begonia produce buds along their margin.

- q) Size of the pitcher varies from 10-12 cm
- r) At the bottom of the ~~at~~ pitcher, digestive juices are secreted.
- s) Pitcher plants ~~are~~ found in Graco and Khasi hills in Meghalaya.
- 2) Give one word for the following.
- a) The outer edge of leaf - leaf margin
- b) The flat and ~~and~~ green part of the shoot, the grows laterally from the nodes of the stem are called - leaves
- c) The arrangement of leaves on a stem is called - phyllotaxy
- d) Young tiny plants - Plantlets
- e) Plant that bears buds in leaves for propagation - Bryophyllum

B) Short Questions and Answers.

Define the following

- a) Autotrophic nutrition: All green plants have the ability to prepare their own food. They are called autotrophs. This method of nutrition is called ~~auto~~ autotrophic nutrition.
- b) Vegetative propagation: Some plants reproduce ~~from~~ from vegetative parts like roots and stem. ~~They are known as~~ This is ~~known~~ known as vegetative propagation.
- c) Bladderwort: Bladderwort has highly segmented leaves. Some of the segments of these leaves form small bladder like structures. The bladder has insects enter into it but cannot come out and are digested inside.

DATE: / / 20

d.) The Shoot system: The part that grows above the soil is called the shoot system.

G Long Questions and Answers.

Answer the following:

1) What are the functions of the stem?

A= Functions of the stem are:

1) Stem bears all the aerial parts of the plants - buds, leaves, flowers ~~and~~ and fruits.

2) Stem helps in the upward movement of water and minerals absorbed by the roots and transports them upto the leaves, flowers and fruits.

3) Food prepared by the plant leaves is conducted downwards to the ~~roots~~ roots and other non-green parts of the plants by the stem.

4) The stem also manufactures food for the ~~plant~~ plant when green and young.

2) Mention the ~~8~~ types of leaves on the basis of shape with example.

A= On the basis of shape leaves are:

- Needle shaped = pine, orion
- Circular shaped = nasturtium, ~~lotus~~ lotus
- Oblong shaped = Banana
- Heart shaped = peepal
- Tapering shaped = eucalyptus, ashoka
- Oval shaped = apple, guava

3) Mention the types of leaves on the basis of margin with example.

A= On the basis of margin leaves are:

Complete or entire margin e.g. peepal

Toothed or serrated margin e.g. rose

Wavy margin e.g. ashoka, mango

Spinous margin e.g. prickly poppy, cactus

4) Describe the different types of arrangement of leaves with example.

A= Different types of arrangement of leaves ~~are~~:

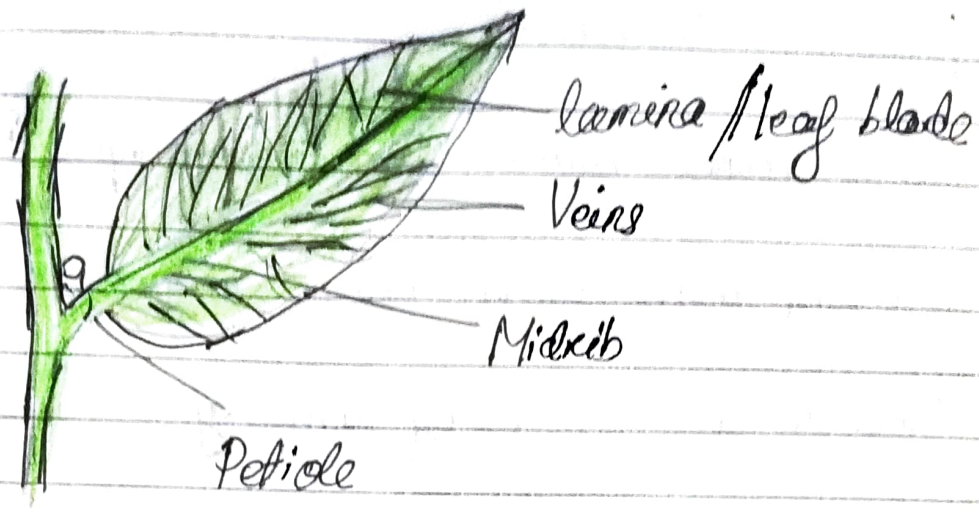
- Alternate: Only one ~~leaf~~ leaf arises from each ^{successive} node, the next leaf arises from the ~~successive~~ node in the opposite direction. e.g. mint, papal

- Opposite: ~~Two~~ Two leaves arise on each node opposite to each other. e.g. jasmira, guava.

- Whorled: More than ~~two~~ two leaves are attached at each node, like a ~~wheel~~ wheel. e.g. deander ^{the}

5) Draw ~~a~~ ~~leaf~~ structure of a leaf and describe its different parts.

A= Structure of a leaf:



- Petiole = The basal part of the leaf is a stalk called "petiole".
- Lamina = "Lamina" is the flat, green and broad part of the leaf.
- Midrib = The petiole continues to the lamina as ~~the~~ "midrib".