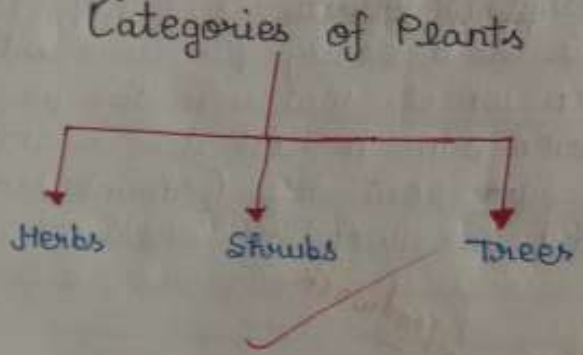


29/7/19

C.W

Chapter-7

Getting to know Plants

NOTES:

CATEGORIES OF PLANTS -

1) Herbs

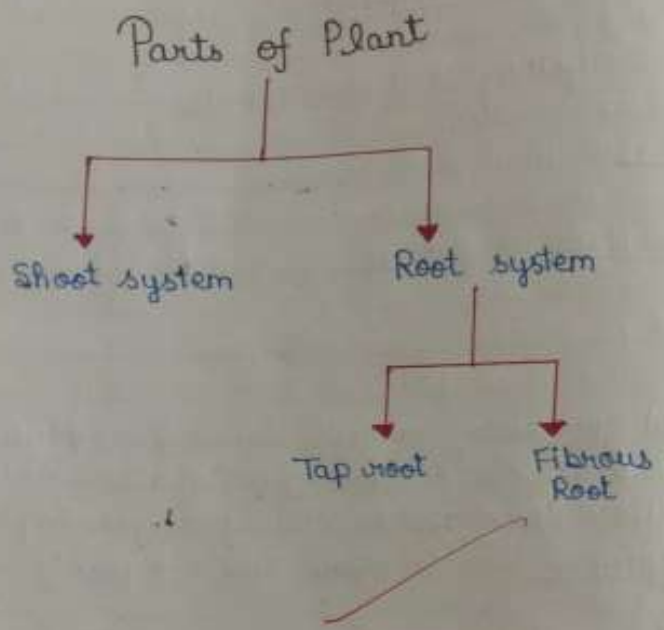
A seed producing annual, biennial or perennial that does not develop persistant woody tissue but dies down at the end of a growing season.
For example - Tomato plant, Mustard plant.

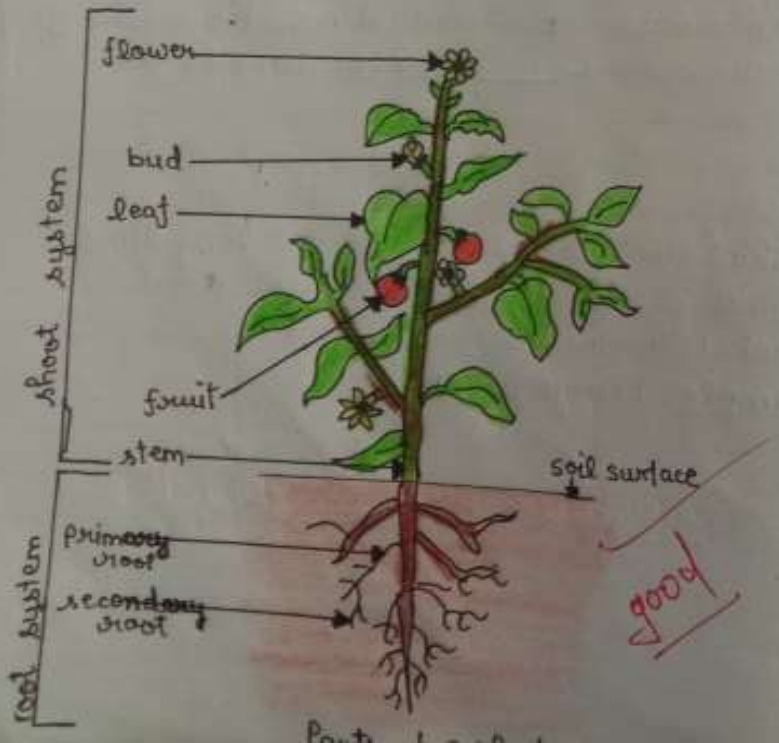
2) Shrubs

A woody plant smaller than a tree usually having a multiple permanent stems, branching from or near the ground. For example: Lemon, rose.

3) Trees

A tall plant that can leave for a long time. Trees have a thick wooden central part from which branches grow.
For example - Mango, peepal.





PARTS OF A PLANT

1) Shoot system

This system include organs such as leaves, buds, flower, stems and fruits and usually it developes above of the ground.

Function of shoot system -

1) Photosynthesis
2) Riproduction
3) Storage transport
4) Hormones production

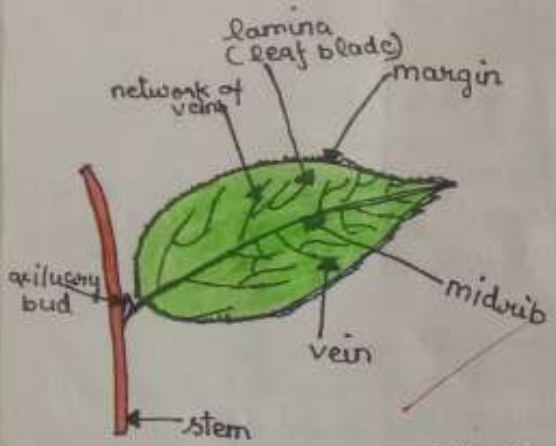
2) Root system

Root system include root as well as modified stem structures such as tubers & Rhizomes and usually it developes underground.

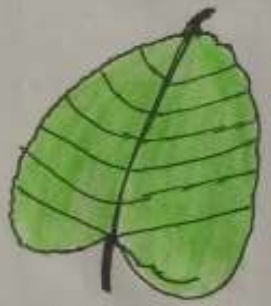
Function of root system -

1) Ancharage
2) Absorption
3) Storage transport
4) Production of the certain hormones

Parts of a Leaf



Types of venation



(a) reticulate venation

parallel venation

Excellent

Venation

- Reticulate Venation
- Parallel Venation

LEAF

One of the thin, flat, usually green part of a plant or tree. It is also known as 'kitchen of the Plant'.

Venation

The arrangement of veins on leaf blade or lamina is called venation. Venadion is two types— Reticulate venation and parallel venation.

Reticulate venation

Vein are interconnected and form a web-like structure.

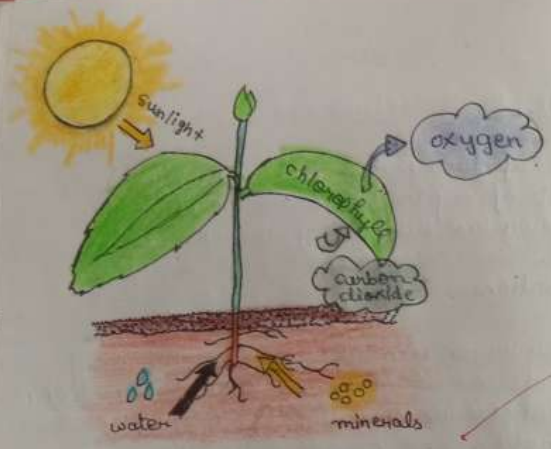
Parallel venation

A pattern in the vein of a leaf where the secondary veins run parallel to each other off a central, perpendicular, primary vein.

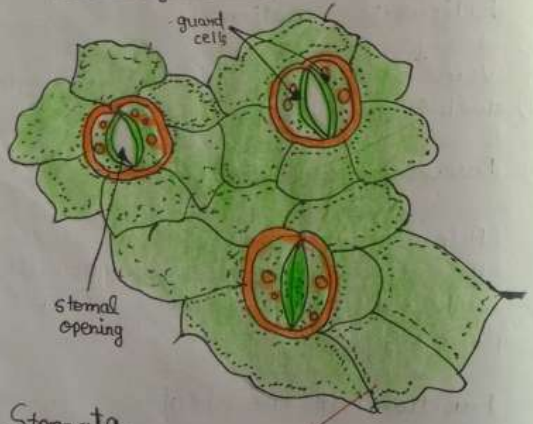
Function of the leaf

1) Photosynthesis - Photosynthesis in green plant, light energy is captured and used to convert water, carbon-dioxide and minerals into oxygen and energy rich organic compound.

$6CO_2 + 6HO_2 \xrightarrow[\text{Chlorophyll}]{\text{Sunlight}} C_6H_{12}O_6 + 6O_2$



Photosynthesis in Plant



Stomata

Carbon dioxide + Water + $\xrightarrow[\text{chlorophyll}]{\text{sunlight}}$ Glucose + Oxygen

Stomata

Any of the very small holes in the surface of a leaf or the stem of a plant that allows ~~stem of a plant~~ gases to pass in and out.

Transpiration

The process of water passing out from the surface of a plant or leaf.

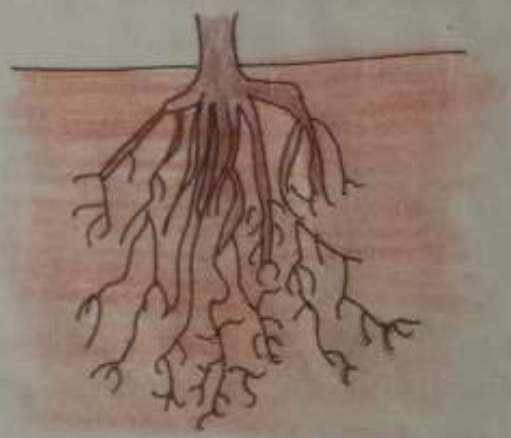
Pollination

The transfer of pollen grains from anther to the stigma of a flower is called pollination.

Fertilisation

Fertilisation is the fusion of male and female gamete to give rise to a single cell.

Ans-2-



Fibrous root

30/7/19

H.W

Chapter-7

Getting to know Plants

Short answer-

Que1- What is venation? Name two plants that have parallel venation.

Ans- The arrangement of veins on leaf blade or lamina is called venation. Banana and bamboo are two plants that have parallel venation.

Que2- What is fibrous root? Draw a sketch of ~~fib~~ fibrous root.

Ans- In some plants, a bunch of thin, fibre-like roots arise from the base of the stem. Such roots are called fibrous roots.

Que3- What happens to the ovule and ovary after fertilisation?

Ans- After fertilisation, the ovule grow and becom seeds and ovary ~~becomes~~ grows and becomes fruit.

Que4- Give two examples of modified roots and stem.

Ans: Two examples of modified roots are carrot and turnip.

Two examples of modified stem are sugarcane potato.

Ques: Differentiate between herbs, shrubs and trees

Ans: Herbs: These are short, green, soft and thin stem plant that do not have many branches and have short lifespan.

Shrubs: These are medium sized brown and not very thick and hard stem plants that grows near the base of the plant and lives for many years.

Trees: These are have tall, brown, thick and very hard stem and lives for several years.

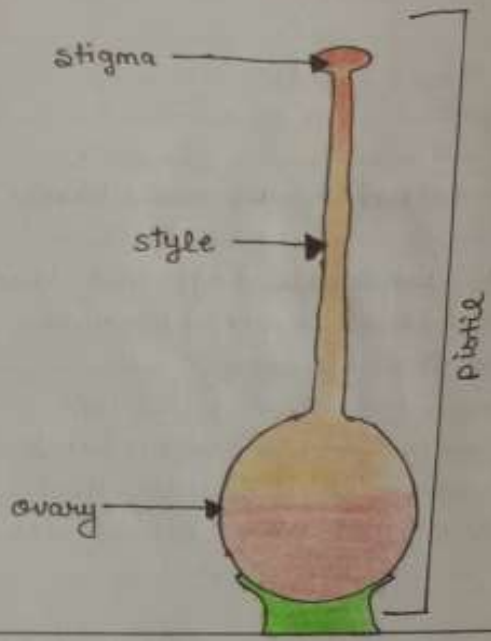
Ques: Shalini sees an uprooted pea plant. She notices some swellings on the roots called root nodules?

(a) What do these root nodules contain?

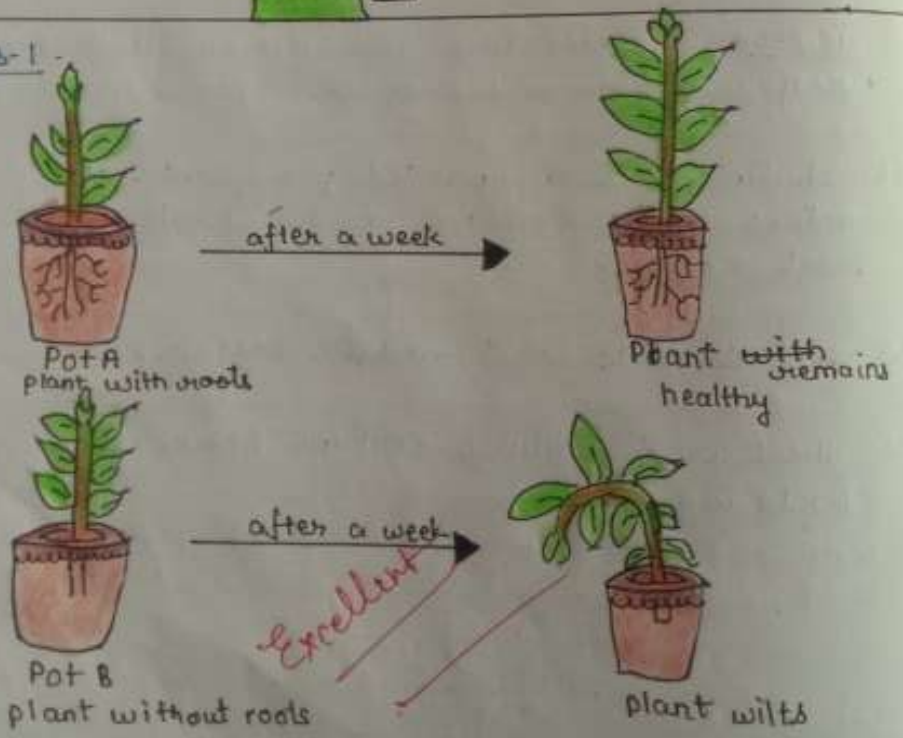
Ans: These root nodules contains Rhizobium bacteria.

Ans-7-

Structure of a pistil



Ans-1-



(b) What does the relation between the roots of leguminious plants and bacteria teach us?

Ans- We should help each other. If anyone gives us shelter or help in need, in return we should make ourselves useful for him.

Quer. What is pistil? Draw its labelled diagram.

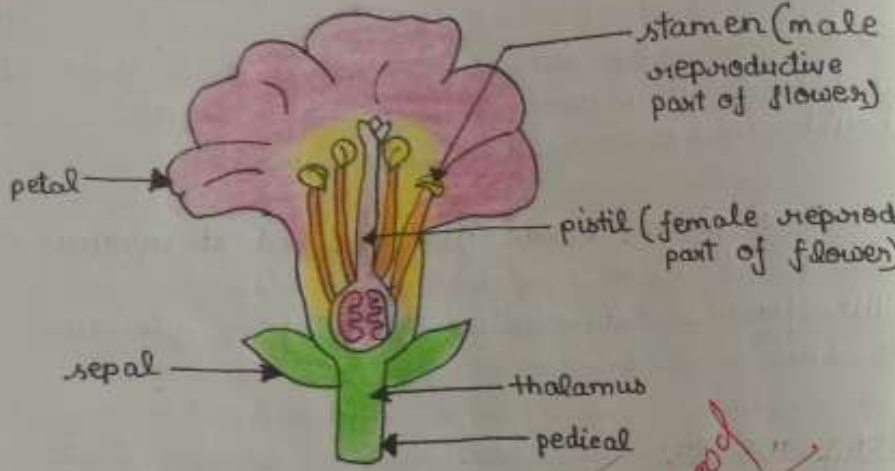
Ans- The female reproductive part of a flower is called pistil.

Long answer-

Que-1- Write an activity to show that roots absorb water for the plant.

Ans- We take two pots (A and B) filled with soil. We dig out weed plants with roots. Plant one weed plant in pot A. Now we cut off the roots of another weed plant and plant in pot B.

While we water both pots in same way. After some time plant in Pot A remains healthy while the plant in pot B dries. This shows that pot B plant had not got water and minerals from the soil. This implies that roots are essential for absorption of water for plants.



Parts of a flower

very good

Que 2- Describe the structure of flower with the help of a well-labelled diagram.

Ans- Sepals- The green leaf-like parts in the outermost circle of a flower are called sepals.

Petals- Bright-coloured petals serve to attract insects that help in pollination.

Stamens- Male reproductive part of a flower is called stamens.

Pistil- Female reproductive part of a ~~plant~~ flower is called pistil.

Que 3- What is transpiration ? How does it help the plant ?

Ans- The loss of water through stomata of leaf is called transpiration.

Transpiration helps the plant in the following ways-

(a) It helps in cooling the plant body.

(b) When leaves lose water during transpiration more water and minerals are pulled upwards from the roots to make up for the lost water. Thus, leaves help in the conduction of water and minerals in the plant through transpiration.

5/5 10/10

Nice