Class 6 Science Chapter 8 Getting to Know Plants
Short Questions answer

II. Very short answer type questions.

A. Give one word for the following:

1. Roots that grow from branches and give extra support to the stem of the plant

Ans: Prop roots

2. Part of the stem from which leaves or new buds arise

Ans: Node

3. Structures that grow from the stem of climber plants to support them

Ans: Tendrils

4. Underground stem of potato

Ans: Tuber

5. Transfer of pollen grains from an anther to a stigma

Ans: Pollination

III. Short answer type questions.

1. Differentiate between tap root system and fibrous root system.

Feature	**Tap Root System**	**Fibrous Root System**
Origin	Arises from the radicle of the seed	Arises from the base of the stem
Structure	Has one main root with smaller branches	All roots are thin, similar in size, and bushy
Example	Neem, Mango	Grass, Wheat

2. What are prop roots?

Ans: Prop roots are special types of roots that grow from the branches of certain plants and grow downward into the soil to provide extra support to the plant. They are commonly seen in banyan trees.

3. How do stems of grapes help the plant to climb?

Ans: The stems of grape plants produce tendrils, which are thin, curling structures that coil around nearby objects or supports. These tendrils help the plant climb and stay upright by providing support.

4. What is venation? Name the two types of venations with one example of each.

Ans: Venation is the pattern of arrangement of veins in the leaf. There are two main types:

a) Reticulate venation – The veins form a network.
Example: Mango, Peepal

b) Parallel venation – The veins run parallel to each other.
Example: Banana, Grass

5. Why are the flowers of some plants brightly coloured and have a sweet smell?

Ans: Flowers of some plants are brightly coloured and have a sweet smell to attract pollinators such as bees, butterflies, and other insects. These pollinators help in the process of pollination, which is necessary for the formation of seeds and fruits.

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Long Questions answer

IV. Long answer type questions.

1. Describe with examples how roots are modified for additional functions.

Ans**:** Roots are not only used for anchoring and absorbing water and minerals, but in some plants, they are modified to perform additional functions:

a) **Storage of food**: In plants like carrot, radish, and sweet potato, roots store food and become thick and fleshy.

b) **Support**: In banyan tree, some roots grow from the branches down to the ground and act as prop roots, providing support.

c) **Respiration:** In plants like mangroves, roots called breathing roots (pneumatophores) grow above the ground to take in oxygen from the air.

d) **Reproduction:** In dahlia and sweet potato, roots can give rise to new plants, helping in vegetative reproduction.

2. Describe the functions of a stem.

Ans: The stem plays many important roles in a plant's life:

a) **Support:** It holds up leaves, flowers, and fruits to keep them in sunlight and air.

b) **Transport:** It conducts water and minerals from the roots to the leaves and food from the leaves to other parts through **xylem and phloem**.

c) **Storage:** In some plants like **potato** (tuber) and **ginger** (rhizome), the stem stores food and nutrients.

d) **Photosynthesis:** In plants like **cactus**, the stem is green and performs photosynthesis.

e) **Propagation:** Stems can grow new plants. For example, **money plant** and **rose** can grow from stem cuttings.

3. What is transpiration? How does it help the plant?

Ans: **Transpiration** is the process by which water is lost as water vapour from the surface of leaves through tiny openings called **stomata**.

Importance/Benefits of transpiration:

a) **Cooling:** It helps to cool the plant just like sweating cools our body.

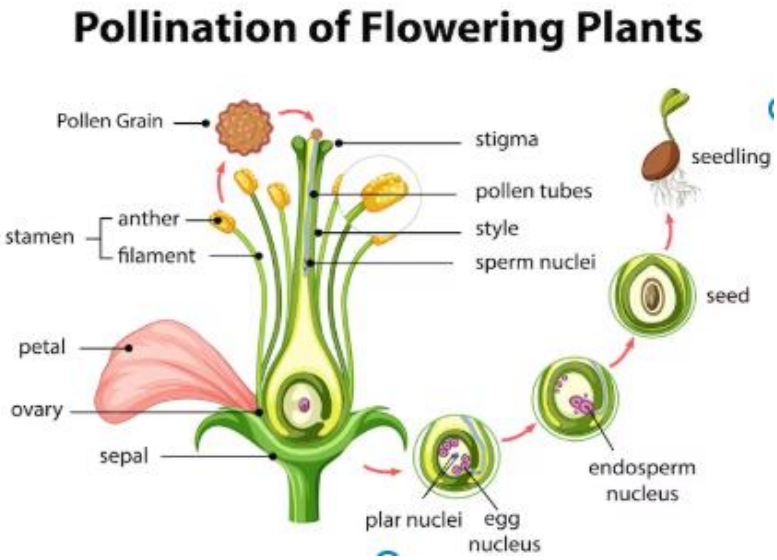
b) **Water movement:** It creates a suction force that helps in drawing water and minerals from the roots upward through the plant.

c) **Distribution of nutrients:** Helps in transporting essential minerals and nutrients to various parts of the plant.

d) **Maintains turgidity:** Keeps cells firm by maintaining water balance.

4. Define pollination. What happens to the different parts of the flower after pollination?

Ans: **Pollination** is the process of transfer of pollen grains from the **anther** (male part) to the **stigma** (female part) of the same or another flower.



After pollination:

a) **Pollen grain** travels down the style and reaches the ovary.

b) **Fertilization** takes place when the male cell fuses with the female cell (ovule).

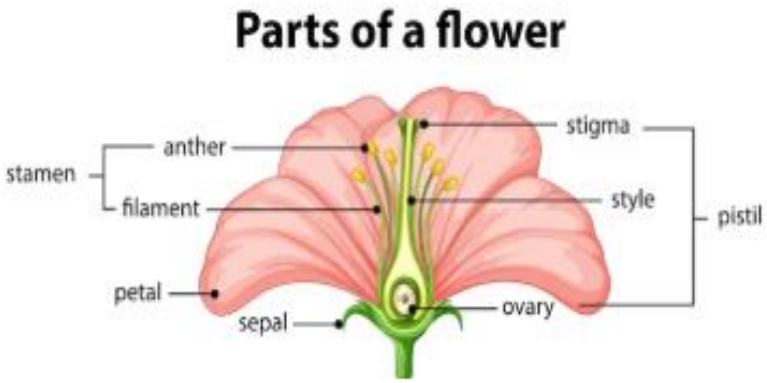
c) The **ovule** becomes the **seed**.

d) The **ovary** turns into the **fruit**.

e) Other parts like petals, sepals, stamens usually dry up and fall off.

5. What are the four main parts of a flower? Describe them in detail, with the help of a labelled diagram.

Ans: The four main parts of a flower are:



a) **Sepals:** Green leaf-like structures that protect the bud before it opens.

b) **Petals:** Often brightly coloured to attract insects for pollination.

c) **Stamens (Male part):** Made of **anther** (produces pollen) and **filament** (holds the anther).

d) **Carpel (Female part):** Made of **stigma** (receives pollen), **style** (tube for pollen to travel), and **ovary** (contains ovules which become seeds after fertilization).