

- The stem conducts water from roots to the leaves and other parts of the plant.
- The parts of flowers are sepals, petals, stamens and pistil.

Textbook Exercise

1. Correct the following statements and rewrite them in your notebook.

- (a) Stem absorbs water and minerals from the soil.
- (b) Leaves hold the plant upright.
- (c) Roots conduct water to the leaves.
- (d) The number of petals and sepals in a flower is always equal.
- (e) If the sepals of a flower are joined together, its petals are also joined together.
- (f) If the petals of a flower are joined together, then the pistil is jointed to the petals.

Ans. (a) **Roots** absorb water and minerals from the soil.

(b) **Roots** hold the plant upright.

(c) **Stem** conducts water to the leaves.

(d) The number of petals and sepals in a flower is **usually** equal.

(e) If the **sepals**, of a flower are joined together, its **pistil** may not be usually joined to the petals.

2. Draw (a) a leaf, (b) a tap root and (c) a flower you have studied for Table.

Ans.

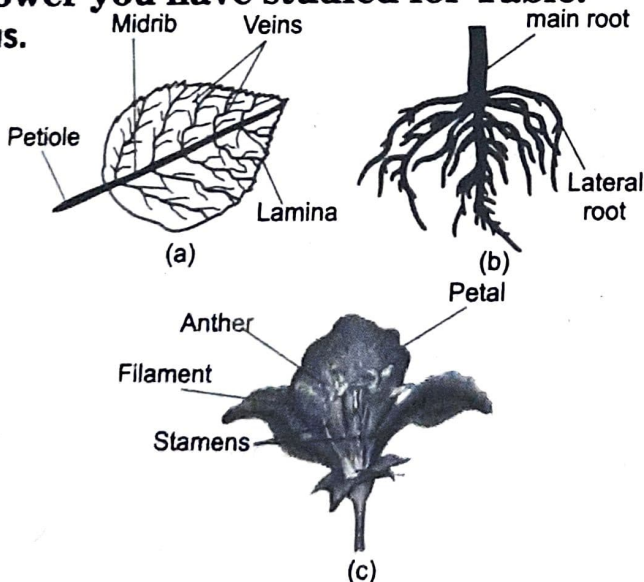


Fig. (a) A leaf, (b) Tap root, (c) A flower

3. Can you find a plant in your house or in your neighbourhood, which has a long

but a weak stem? Write its name. In which category would you classify it?
 Ans. Yes, there is plant in our house which has a long but a weak stem. This is money plant. Its category is climber. Another such plant is bitter gourd.

4. What is the function of a stem in a plant?

Ans. **Functions of the stem :**

- (i) The stem hold branches, leaves, flowers and fruits.
- (ii) The stem is like a two-way street because :
 - It conducts water and dissolved minerals from roots to leaves and other parts of the plant.
 - It conducts food prepared by leaves to storage oranges of the plants.
- (iii) In some plants stem stores food, as in potato, ginger, etc.

5. Which of the following leaves have reticulate venation?

Wheat, tulsi, maize, grass, coriander, (dhania), china rose.

Ans. Plants with reticulate venation are Tulsi, coriander (dhania) and china rose.

6. If a plant has fibrous root, what type of venation do its leaves likely to have?

Ans. Parallel venation.

7. If a plant has leaves with reticulate venation, what kind of roots will it have?

Ans. Tap root.

8. Is it possible for you to find out whether a plant has tap root or fibrous root by looking at the impression of its leaf on a sheet of paper?

Ans. yes, the impressions of a leaf on a sheet of paper give a clear picture of venation of the leaf. If the leaf of the plant has reticulate venation it would have tap root. But if the leaf has parallel venation the plant would have fibrous roots.

9. Write the names of the parts of a flower.

Ans. Parts of a flower :

- (i) Sepals

(ii) Petals

Anther

(iii) Stamen

Filament

Stigma

Style

(iv) Pistil or Carpel

Ovary

10. From the following plants, which of them have flowers?

Grass, maize, wheat, chilli, tomato, tulsi, peepal, shisham, banyan, mango, jamun, guava, pomegranate, papaya, banana, lemon, sugarcane, potato, groundnut.

Ans. I have seen all the plants mentioned above. Actually all of these produce flower. Of these the plant which I have seen in flowering state are grass, maize, wheat, chilli, tomato, tulsi, peepal, shisham, banyan, mango, jamun, guava, pomegranate, papaya, banana, lemon.

11. Name the part of the plant which produce its food. Name this process.

Ans. Leaves of a plant produce food. The process is photosynthesis.

12. In which part of a flower, you are likely to find the ovary?

Ans. We find ovary in pistil or carpel. Ovary is the lowermost swollen part of the pistil.

13. Name two flowers each with jointed and separated sepals.

Ans. (i) Flowers with jointed sepals : *Datura*, *Petunia*.

(ii) Flowers with separated sepals : *Mustard*, *Cassia* (Amlatas).

Intext Questions (Paheli Boojho)

1. Paheli wonders what kind of stem the money plant, bean stalk, gourd plants and grape, vines have. Do observe some of these plants. How are these different from a herb, a shrub or a tree? Why do you think some of them need support to climb upwards?

Ans. All these plants have weak stem that is why they need support to climb upward.

◆ These are different from herbs, shrubs and trees because :

• their stem is very lengthy but they have green tender stem (neither herb, nor shrub or tree).

• stem is weak that cannot stand upright.
• may branch at the base of stem but stem is not hard.

◆ Money plant and gourd plant are climbers.
◆ Bean stalk, grape vines are twinnners. They twines/twist around their support to climb up.

2. Boojho has a brilliant idea! If he wants to know what kind of roots a plant has, he need not pull it out. He just has to look at its leaves!

Ans. Yes, it is true.

◆ This plants with leaves having reticulate venation have tap roots.

◆ If the leaves of a plants have parallel venation the plant would have fibrous root.

EXERCISE

(Based on Student Advisor Textbook)

A. Multiple Choice Questions

1. Which of the following is not the primary function of stem?

- (a) Conduction of water
- (b) Photosynthesis
- (c) Formation of branches
- (d) Bears flowers and fruits

2. Which of the following terms constitute the female part of the flowers?

- (a) Sepals, petals and stamen
- (b) Stigma, style and ovary
- (c) Ovary, stamen and stigma
- (d) Ovary, style and stamen

3. Which of the following combination of features would you observe in grass?

- (a) Parallel venation and fibrous root
- (b) Parallel venation and tap root
- (c) Reticulate venation and fibrous root
- (d) Reticulate venation and tap root

4. To which organ of the plant would you associate the term midrib?

- (a) Root
- (b) Stem
- (c) Leaves
- (d) Flowers

5. Leaves lose water in the form of vapour in the process of:

- (a) Photosynthesis
- (b) Transportation
- (c) Absorption
- (d) Transpiration

6. Green, tender stem and short height are characteristic of: