

# NCERT SOLUTIONS

## CLASS-VI SCIENCE

### CHAPTER-7

#### GETTING TO KNOW PLANTS

1. Do correct the following and rewrite them.

- (a) Water and minerals are absorbed by stem from the soil.
- (b) The one that holds the plant upright are leaves.
- (c) The thing that conduct water to the leaves are roots.
- (d) Number of sepals and petals in a flower are always equal.
- (e) If the sepals of a flower are joined together then petals are also joined together.
- (f) If the petals of a flower are joined together, then pistil will joined to the petal.

Ans:

- (a) Roots are the ones, which absorb water and minerals from soil.
- (b) Roots are the ones which hold the plant upright.
- (c) Stems are responsible to conduct water to the leaves.
- (d) The number of petals to that of sepals in a flower is usually equal.
- (e) If the sepals of a flower are joined together it is not necessary that petals must join together
- (f) If the petals of a flower are joined together, then it is not necessary that the pistil is joined to the petal.

2. Draw (a) a leaf, (b) a taproot and (c) a flower,

Ans:



3. Name the plant, which has a long, but a weak stem. In which category would you classify it?

It is a money plant. It is a climber.

**4. In a plant, what is the function of a stem?**

**Ans:**

A stem performs following below functions:

- (i) In order to get maximum sunlight, stem and its branches hold the leaves.
- (ii) Stem transfers water from roots to various parts of the plant.
- (iii) It transports food from leaves to various parts.
- (iv) It bears leaves, flowers and fruits.

**5. Reticulate Venation – Which of the following leaves have that?**

**Wheat, china rose, maize, tulsi, grass, coriander.**

**Ans:**

Tulsi and china rose have reticulate venation.

**6. What type of venation does its leaves likely to have if a plant has fibrous root?**

**Ans:**

Parallel venation.

**7. What kind of roots will a plant have if a plant has leaves with reticulate venation?**

**Ans:**

Tap root.

**8. Is it possible for you to recognize the leaves without seeing them? How is that possible?**

**Ans:**

It is not possible exactly recognize the leaves without seeing them. But is possible to have some idea by touching and smelling them.

**9. Starting from outside to inside, name the parts of a flower in sequence.**

**Ans:**

The names of various parts of a flower from outside to inside are:

- (i) Sepals (ii) Petals (iii) Stamens (iv) Pistil

**10. Which part of the plant produces its food? Name its process.**

**Ans:**

Leaves produce food for the plant. This process is called photosynthesis.

**11. Where does ovary present in a flower?**

**Ans:**

We find ovary in pistil. It is the lowermost part of the pistil.

**12. Give the name of two flowers, with joined and separates sepals.**

**Ans:**

Flowers with joined sepals:

(i) Datura

(ii) Loki

Flowers with separate sepals:

(i) Gurhal

(ii) Mustard

#### VERY SHORT ANSWER TYPE QUESTIONS

**1. List few plants, which are found around your house.**

**Ans:**

Mango, chili, palak, neem, grass, and banyan tree.

**2. Are all plants the same size?**

**Ans:**

No, all plants are of different sizes.

**3. Name the major parts of plants.**

**Ans:**

Stem, root, leaves and flowers.

**4. How many kinds of plants are present and what are they?**

**Ans:**

There are three kinds of plants.

(i) Herbs (ii) Shrubs (iii) Trees

**5. What is leaf venation?**

**Ans:**

The design made by veins in a leaf is called leaf venation.

**6. Provide two examples of shrubs.**

**Ans:**

(i) Lemon (ii) Orange

**7. What is lamina?**

**Ans:**

Green flat part of leaf is called lamina.

**8. Explain about petiole.**

**Ans:**

Petiole is the part (stalk) of a leaf by which it is attached to the stem.

**9. Provide two examples of trees.**

**Ans:**

(i) Mango (ii) Neem

**10. What are veins?**

**Ans:**

The lines on the green flat part of the leaf are called veins.

**11. What is midrib?**

**Ans:**

A thick vein in the middle of the leaf is called midrib.

**12. What are the two plants that belong to herbs?**

**Ans:**

Tomato and Potato

**13. How many types of leaf venation are there?**

**Ans:**

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There are two types of leaf venation: (i) Reticulate venation (ii) Parallel venation.

**14. Name the part of plant, which helps in holding the plant in the soil.**

**Ans:**

Roots helps in holding the plant in the soil.

**15. Name the process by which leaves can prepare their food.**

**Ans:**

The process by which leaves prepare their food is called photosynthesis

**16. What are the raw materials for the process of photosynthesis?**

**Ans:**

(i) Sunlight (ii) Water (iii) Carbon dioxide (iv) Chlorophyll

**17. Where does the photosynthesis take place in plants?**

**Ans:**

It takes place in the leaves of the plants.

**18. What is transpiration?**

**Ans:**

The process by means of which water comes out from the leaves in form of vapor is called as transpiration.

**19. Name the types of roots shown in the following diagram.**



**Ans:**

(i) Tap roots (ii) Fibrous roots

**20. What are taproots?**

**Ans:**

The roots in which one root is main root and other lateral roots grow on it are called taproots.

**21. What are lateral roots?**

**Ans:**

In the main taproot, smaller roots that grow are called lateral roots.

**22. Name two plants, which have fibrous root.**

**Ans:**

(i) Wheat plant (ii) Maize plant

**23. Give names of two plants, which have, tap root.**

**Ans:**

Gram and mustard.

**24. What are fibrous roots?**

**Ans:**

The roots which do not have any main root but all the roots are similar are called fibrous root.

**25. Does the stem prepare food for any plant?**

**Ans:**

Yes, there are some plants in where the stem prepares food, e.g. cactus.

**26. Name the prominent parts of a flower.**

**Ans:**

The prominent parts of a flower are petals, sepals, stamens and pistil.

**27. What are sepals? What are their functions?**

**Ans:**

The small green colored leaf-like structures are called sepals. It protects flower when it is in stage of bud.

**28. Name the various parts of pistil.**

**Ans:**

There are three parts of pistil: (i) Stigma (ii) Style (iii) Ovary

**29. What are stamens?**

**Ans:**

Once the sepals and petals are removed from the flower then some filaments could be seen in the flowers, which are called stamens. These, are the male part of the flower.

**30. Name various parts of stamen.**

**Ans:**

There are two parts of a stamen:

(i) Anther

(ii) Filament.

**31. What is pistil?**

**Ans:**

Pistil is the innermost part of a flower. These are the female part of the flowers.

**32. What are petals? Why are they generally colored?**

**Ans:**

The colored big leaf-like structures present in flower are called petals. They are colored so as to attract insects for pollination.

**33. What are ovules?**

**Ans:**

These are small bead-like structures inside the ovary.

SHORT ANSWER TYPE QUESTIONS

**1. Explain about weeds.**

**Ans:**

In the fields the growth of unwanted plants with the main crops or in their surroundings are called weeds. These are the plants which are not grown by the farmers. For example, grass.

**2. What are climbers?**

**Ans:**

To climb up certain plants take support of neighboring structures and they are climbers. They have weak stem. For example, grapes, money plant, beans.

**3. What are herbs? Give two examples.**

**Ans:**

The plants with green and tender stems are herbs. They are usually short and may have no or less branches. For example, tomato, potato.

**4. What are shrubs? Give two examples.**

**Ans:**

The plants, which have a hard, but not a very thick stem are called shrubs. Such plants have the stem branching out near the base. For example, lemon rose plants.

**5. What are trees? Give two examples.****Ans:**

The plants, which have hard and thick brown stem and are very tall are called trees. The stems have branches in upper part and much above the ground. For example, mango, neem.

**6. What are creepers? Write an example.****Ans:**

The plants that cannot stand upright because of their weak stem and spread on the ground are called creepers. Different types of grasses are the examples of creepers.

**7. Classify plants and give an example of each.****Ans:**

Based on various characteristics they are classified as

- (i) Herbs, e.g. tomato
- (ii) Shrubs, e.g. lemon
- (iii) Trees, e.g. mango

**8. Explain an activity to show that stem conducts water and other substances.****Ans:**

- Some quantity of water is taken in a glass.
- Add few drops of red ink to the water
- Cut the stem of a herb plant from its base.
- Put it in the glass as shown in the diagram.
- We could see that some parts of the stem become red.
- This activity shows that stem conducts water.

**9. Explain the structure of a leaf.****Ans:**

There are two main parts of leaf:

- (i) Petiole: The part of the leaf by which it is attached to the stem is called petiole.
- (ii) Lamina: The broad, green part of the leaf is lamina.
- (i) Veins: There are various types of lines on the leaf which are called veins
- (ii) Midrib: There is a thick vein in the middle of the leaf. This vein is called midrib.

**10. Explain the main functions of leaf.****Ans:**

There are following two main functions of leaf:

- (i) Transpiration: The In form of vapor, extra water comes out of the leaves. This process is called transpiration.
- (ii) Photosynthesis: The process, by which leaves prepare their food from water and carbon dioxide, in the presence of sunlight and a green-colored substance, is called photosynthesis.

**11. What are unisexual and bisexual flowers?****Ans:**

Unisexual flowers have either male (stamen) or female (pistil) parts. Bisexual flowers have both male and female whorl in the flowers, i.e., they have both stamen and pistil.

**12. It is possible for pitcher plant to prepare food by photosynthesis through its green leaves but why does it eat insects?****Ans:**

To get nitrogenous compounds which it cannot absorb from the soil

**13. Name a plant that has underground as well as aerial (above the ground) root system.****Ans:**

Banyan tree.

**14. Why are dewdrops present on leaves in the early morning?****Ans:**

At night, the water lost by leaves is not evaporated and gets collected on the leaves and because of that, it forms dewdrops.

**15. What is the relation between leaf venation and the type of roots?****Ans:**

The plants having taproot have reticulate venation. The plants having fibrous roots have parallel venation.

**16. What do you mean by a complete and incomplete flower?****Ans:**

The flower with all whorls, i.e., sepals, petals, stamen and carpel in it is a complete flower. If any one of this is absent in a flower it is called an incomplete flower.

**17. Leaves need oxygen and carbon dioxide (for photosynthesis). How do**

**17. Leaves need oxygen and carbon dioxide (for photosynthesis), how do they get these gases?**

**Ans:**

Leaves take in these gases from atmosphere through small pores present on them called stomata.

**18. How can one detach the leaves of potted plant without plucking, them?**

**Ans:**

By keeping it in dark for 2-3 days.

**19. Why are petals colorful?**

**Ans:**

The colorful petals attract insects for pollination.

**20. Name the male part of a flower. Write names of its parts and draw a diagram.**

**Ans:**

The male part of a flower is called stamen. It has two parts: (i) Filament and (ii) Anther.

**21. Name the female part of a flower. Write names of its parts and draw a diagram.**

**Ans:**

The female part of a flower is called pistil. It has three parts:

(i) Stigma, (ii) Sty and (iii) Ovary.

**22. Differentiate between taproot and fibrous root.**

**Taproot**

1) Tap root has only one and long root. The smaller that grow from the main root are called lateral root.

2) They go deep into the soil.

3) Tap roots are found in plants which have reticulate venation in their leaves.

**Fibrous root**

1) Fibrous roots do not have a main root. All roots seem similar.

2) They do not go deep into the soil.

3) These are found in plants which have parallel venation in their leaves.

