

Chapter 7: Getting to Know Plants

NCERT Exemplar · Class 6 · Science

Multiple Choice Questions

Question 1

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

A.

Parallel venation and fibrous root

B.

Parallel venation and taproot

C.

Reticulate venation and fibrous root

D.

Reticulate venation and taproot

Answer

Correct option: B

Solution

Ans: The correct answer is option (b) Parallel venation and fibrous root.

Grasses have parallel venation on their leaves. Fibrous roots are like thin fibres that arise in groups from the base of the stem.

Question 2

Which of the following is the correct match between the characteristics of stem and the category of plant?

A.

Weak stem which cannot stand upright: Creeper

B.

Green tender stem: Shrub

C.

Thick, hard stem with branching near Tree the base

D.

Thick, hard stem with branches high: Herb on the plant

Answer

Correct option: A

Solution

Ans: The correct answer is option (a) Weak stem which cannot stand upright: Creeper. A plant that has thin, long and weak stems is called a creeper. It cannot stand upright and spreads on the ground. A shrub is of medium size and has thick and hard stems. Herbs are small plants with tender and green stems. And trees are tall plants that have thick and hard stems with branches high on the plant.

Question 3

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

A.

Conduction of water.

B.

Photosynthesis.

C.

Formation of branches.

D.

Bears flowers and fruits.

Answer

Correct option: B

Solution

Ans: The correct answer is option (b) Photosynthesis. Photosynthesis is the primary function of leaves. The stem performs the following functions-

- i. Hold the plant upright.
- ii. Carrying water and minerals from roots to the leaves.
- iii. It grows in the form of branches and bears flowers and fruits.

Question 4

Which of the following is not a correct match?

A.

Petiole: attaches the leaf to stem

B.

Lamina: green flat part of the leaf

C.

Margin: gives shape to the leaf

D.

Veins: transpiration

Answer

Correct option: D

Solution

Ans: The correct answer is option (d) Veins: Transpiration. The process of transpiration involves the evaporation of water, which is carried out by the stomata of the leaves. The veins function as small tubes that carry water into the leaf.

Question 5

Read the following sentences about photosynthesis:

- (i) Sunlight, carbon dioxide, chlorophyll and water are necessary.
- (ii) Oxygen is absorbed.
- (iii) Leaves carry out photosynthesis.
- (iv) Proteins are made during photosynthesis.

Choose the correct pair of sentences that are true to photosynthesis

A.

(iii) and (iv)

B.

(i) and (iii)

C.

(ii) and (iv)

D.

(i) and (iv)

Answer

Correct option: B

Solution

Ans: The correct answer is option (b) (i) and (iii). Photosynthesis is a process carried out by leaves that requires sunshine, carbon dioxide, chlorophyll, and water. Glucose is produced, and oxygen is released.

Question 6

Which of the following terms constitute the female part of the flower?

A.

Sepals, petals, and stamen.

B.

Stigma, style, and ovary.

C.

Ovary, stamen, and stigma.

D.

Ovary, style, and stamen.

Answer

Correct option: B

Solution

Ans: The correct answer is option (b) Stigma, style, and ovary.

Very Short Answer Questions

Question 7

Fill in the blanks:

- (a) The small green leaves at the base of flowers are known as _____.
- (b) The swollen basal part of the pistil is the _____ which bears the _____.
- (c) Stamen has two parts called _____ and _____.
- (d) The young unopened flower is termed as _____.

Solution

Ans: The small green leaves at the base of flowers are known as Sepals

Ans: The swollen basal part of the pistil is the ovary which bears the ovules.

Ans: Stamen has two parts called filament and anther.

Ans: The young unopened flower is termed as Bud.

Question 8

Solve the riddles given below:

- (a) "I have a green tender stem and I am much shorter than you. Who am I?"
- (b) I come out first from the seed when it is soaked in water. I provide anchorage to plants. Who am I?
Write another function that I perform.

Solution

Ans: Herb

Ans: Root. It absorbs water and minerals from the soil.

Short Answer Questions

Question 9

Match the parts of the plant given in Column I with their function in Column II

Column I	Column II
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(a) Leaf	(i) Excretion
(b) Flower	(ii) Bears Branches
(c) Stem	(iii) Photosynthesis
(d) Root	(iv) Reproduction
	(v) Anchorage

Solution

Ans: The correct match is

Column I	Column II
a) Leaf	(iii) Photosynthesis
b) Flower	(iv) Reproduction
c) Stem	(ii) Bears Branches
d) Root	v) Anchorage

Question 10

Boojho wanted to test the presence of starch in leaves. He performed the following steps.

(1) He took a leaf and boiled it in water,

(2) He placed the leaf in a petri dish and poured some iodine over it. He did not get the expected result. Which step did he miss? Explain.

Solution

Ans: Boojho skipped the step where he was supposed to boil the leaf in alcohol to eliminate the green colour of chlorophyll, which was required since chlorophyll interferes with the starch test.

Question 11

Will a leaf taken from a potted plant kept in a dark room for a few days turn blue-black when tested for starch? Give reasons for your answer.

Solution

Ans: To synthesize starch, the leaf should have gone under photosynthesis. The potted leaf did not undergo the same; there was no process of fresh starch food.

Question 12

Can the stem of a plant be compared with a street with two-way traffic? Give a reason.

Solution

Ans: A plant's stem can be compared to two-way traffic. Because in the stem there are two types of tubes, one carries water and minerals from roots to the leaves and other parts. And the other tubes carry food from leaves to other parts of the plant, and roots.

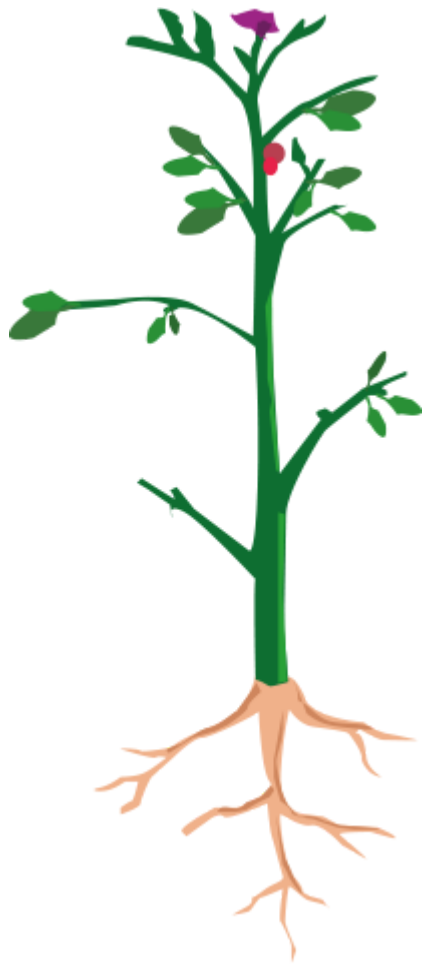
Long Answer Questions

Question 13

Read the function of parts of a plant given below:

- (a) Fixes plants to the soil.
- (b) Prepares starch.
- (c) Takes part in reproduction.
- (d) Supports branches and bears flowers.

In the diagram given in Fig. 7.1, write the names of the parts whose functions you have just read at the appropriate space.



Solution

Ans: a) Fixes plants to soil – Roots.

b) Prepares starch – Leaf by photosynthesis.

c) Takes part in reproduction – Flower.

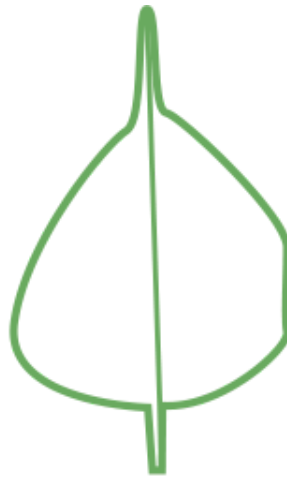
d) Supports branches and bears flowers – Stem.

Question 14

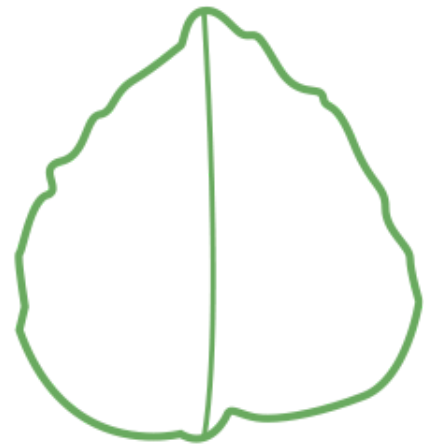
Draw the veins of leaves given in Fig. 7.2 below and write the type of venation.



Grass



Peepal



China Rose

Solution

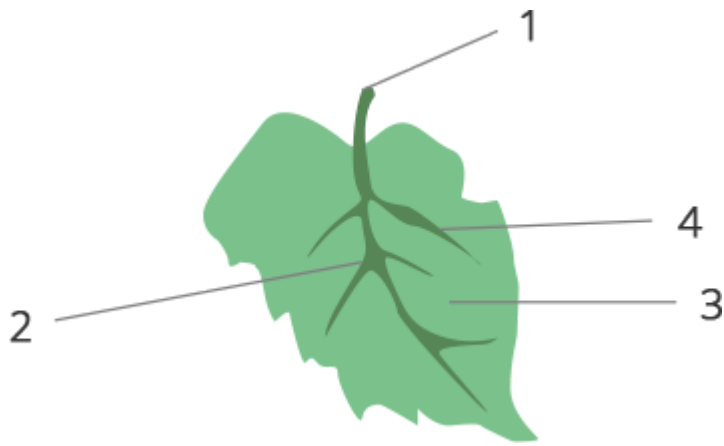
Ans: Grass- Parallel venation.

Peepal and china rose- Reticulate venation

Question 15

Observe Fig. 7.3 and attempt the questions that follow it.

- (a) Label the parts 1, 2, 3 and 4 in the diagram.
- (b) What type of venation does the leaf has?
- (c) What type of venation is seen in grass leaves?



Solution

Ans: a) Part 1 is called Petiole.

Part 2 is called mid rib.

Part 3 is called Lamina.

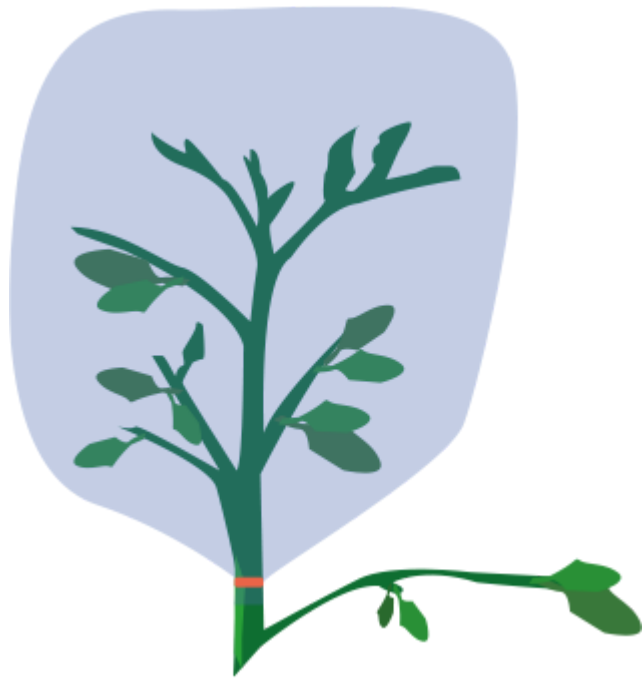
Part 4 is called Veins

b) It is a reticulate venation. The veins spread out to give a net like appearance.

c) Grass has parallel venation.

Question 16

Observe the picture of an activity given as Fig. 7.4 carried out with leaves of plants and polythene bags.



- (a) Which process is demonstrated in the activity?
- (b) When will this activity show better results – on a bright sunny day or a cloudy day?
- (c) What will you observe in the polythene bag after a few hours of setting up the activity?
- (d) Mention any one precaution you must take while performing this activity.

Solution

Ans: Transpiration

Ans: The rate of transpiration depends on sunlight. The more sunlight, the more is transpiration. So it will show better results on a sunny day.

Ans: The polythene bag will have a few drops of water from inside.

Ans: i) The set up should be airtight

ii) The bag should be dry.

iii) The leaves or the twig should be fresh.

Question 17

Identify the wrong statements and correct them.

- (a) Anther is a part of the pistil.
- (b) The visible parts of a bud are the petals.
- (c) Lateral roots are present in a taproot.
- (d) Leaves perform the function of transpiration only.

Solution

Ans: The given statement is wrong. The anther is not the part of the pistil but the stamen.

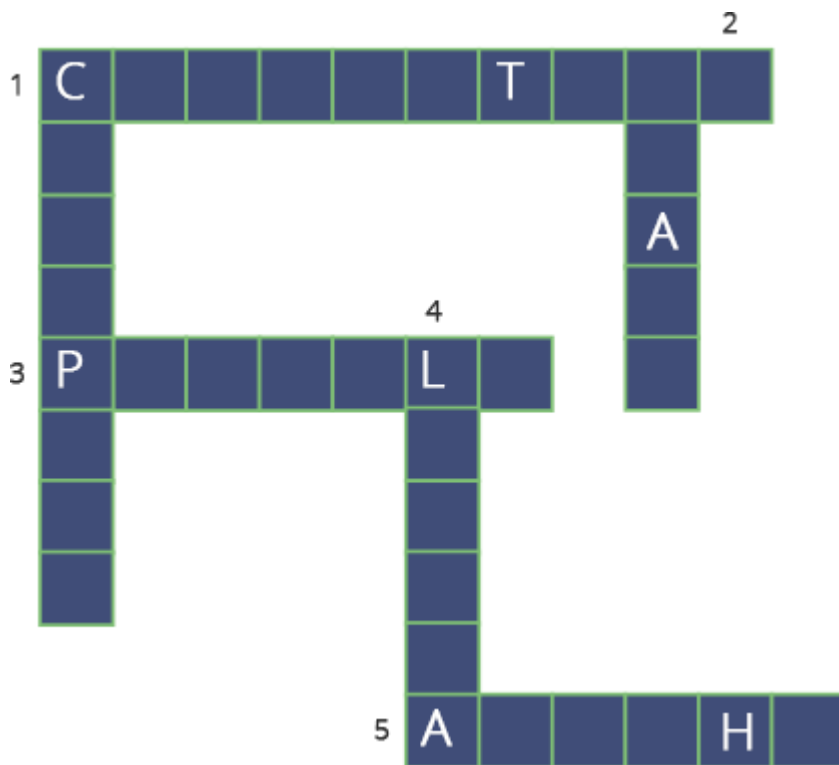
Ans: The given statement is wrong. Petals are the flowers of flowers. The visible parts of bud are sepals.

Ans: The given statement is correct.

Ans: The given statement is wrong. Leaves not only perform the function of transpiration but also perform the functions of photosynthesis, gaseous exchange through tiny pores in them known as stomata.

Question 18

Solve the crossword given in Fig. 7.5 as per the clues given below it:



Across

1. The term that describes upward movement of water in a stem.
3. The part of the leaf which is attached to the stem.
5. This part is attached to the tip of the filament.

Down

1. Plants that are weak and spread on the ground.
2. Ovules are present in this part of the flower.
4. Is the broad part of the leaf.

Solution

Ans: Across

1. Conduction.
3. Petiole
5. Anther

Down-

1. Creepers
2. Ovary
4. Lamina

Question 19

Fill in the blanks with the terms that are listed below:

anther, male, ovary, ovule, petals, pistil, stamen, and filament.

Sepals, _____(a)_____, stamens and _____(b)_____ are the parts of a flower. Stamen is made up of _____(c)_____ and _____(d)_____ and it represents the _____(e)_____ part of the flower. The female part of the flower is called the _____(f)_____. The basal, swollen part of the pistil is called the _____(g)_____ which contains the _____(h)_____.

Solution

Ans: (a) Petals.

(b) Pistil.

(c) Anther.

(d) Filament.

(e) Male.

(f) Pistil.

(g)Ovary.

(h)Ovules.

About Class 6 Science NCERT Exemplar Solutions Chapter 7

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Crucial Topics Mentioned In Chapter 7 NCERT Exemplar Solutions

- Herbs, Shrubs & Trees
- Root & Its Functions
- Leaf & Types of Venation in Leaves
- Flower & Functions of different parts of a flower
- Stem & Its functions
- Diagrams of Leaf, flower, and Parts of a plant

Learning Outcomes of Chapter 7 Getting To Know Plants

After completing this chapter from Class 6th NCERT science book, students will be able to classify plants into three categories that are herbs, shrubs, and trees. In addition to that students will also learn about other types of plants like climbers, creepers, algae, mosses, and more. Children have usually seen different varieties of plants in their garden, after learning this chapter they will easily identify and classify them into different categories.

Besides, this chapter also educates children about different life processes that happen in the life of plants and their parts. From the way they obtain food to the process of how they breathe and produce new fruits, this chapter gives an in-depth understanding of all these concepts.
