BIOLOGY

BOOKS - ICSE

THE LEAF

Exercises Tick The Most Appropriate Answer

1. The point on the stem from where a leaf arises is a

A. stem.

B. node.

C. bark.

D. trunk.

Answer:

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2. This is the flat, thin, expanded part of the leaf, mostly green in colour.

A. node

B. lamina

C. midrib

D. leaf base

Answer:

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3. The lamina has a thickened vein along its centre called the

A. veinlet.

B. petiole.

C. vein.

D. midrib.

Answer:

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4. The small, slightly swollen part at the end of petiole is called

A. leaf base.

B. leaf blade.

C. vein.

D. leaf stalk.

Answer:

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5. In this type of arrangement, a pair of leaves arises from the same node but opposite to each other.

A. opposite

B. alternate

C. whorled

D. none of these

Answer:

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6. In a pea plant, the leaf is modified into a thin thread-like coiled structure called

A. thorn.

B. hook.

C. spine.

D. tendril.

Answer:

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Exercises Fill In The Blanks

1. An _____ is the angle between the petiole of a leaf and the stem.

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2. In a _____ leaf, the leaf blade is clearly divided into many distinct parts.

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3. The arrangement of veins and veinlets on the lamina of a leaf is called _____

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4. In _____ venation, veins and veinlets are irregularly distributed over the entire lamina, forming a network.

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5. Scale leaves may be thin and dry as in _____,or thick and fleshy as in_____

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Exercises Match The Columns

1. Match the following columns

1. A leaf with a single leaf blade is a	a. petiole
2. Points on the stem from which leaves arise	b. midrib
3. The thickened vein along the centre of a leaf	c. stomata
4. The minute pores present on the lower surface of a leaf	d. simple leaf
5. The short, narrow, cylindrical part of a leaf that attaches the leaf blade to the stem	e. nodes

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Exercises Find The Odd One Out Give Reasons

1. Reproductive part of the plant is

A. stem

B. flower

C. leaves

D. root

Answer:

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2. leaf base, lamina, midrib, flower

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3. leaf base, lamina, midrib, flower

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4. pea plant, pitcher plant, bladderwort, Venus flytrap

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Exercises Name The Type Of Leaves Present In The Following Plants

1. Choose the correct options for the following:-

rose prickly poppy mango cotton neem peepal *Acacia* gulmohar

Simple leaf	Compound leaf
1.	1.
2.	2.
3.	3.
4.	4.

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2. Differentiate between Reticulate and parallel venation

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3. Simple and compound leaf

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4. What is a node?

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5. What is a the function of the petiole?

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6. Name the type of leaf present in prickly poppy.

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7. Name one plant where whorled arrangement of leaves is found.

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8. Name two predatory plants.

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Exercises Answer The Following In Detail

1. What are the main parts of a leaf?

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2. What is venation? Describe various types of leaf venation.

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3. State main function of a leaf.

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4. What is a leaf tendril? How does it help the plant?

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5. State the function of the leaf spines in Opuntia.

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6. Describe vegetative propagation in Bryophyllum.

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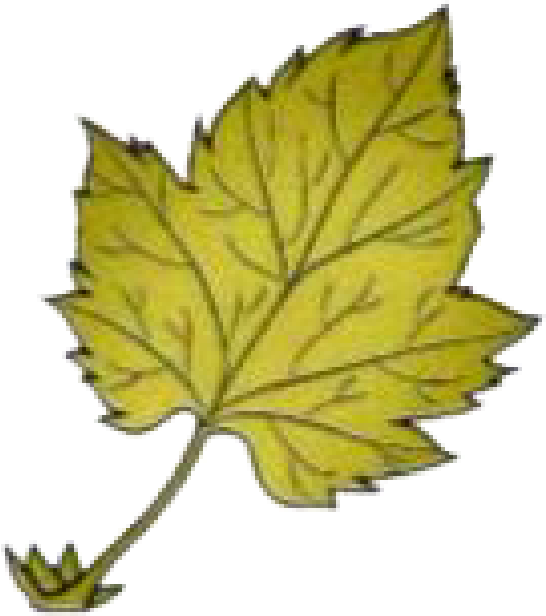
Exercises

1. Copy the diagram in your notebook and label the following parts.

lamina , leaf base , veins , midrib, veinlets ,

petiole



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Check Your Progress True Or False

1. The lamina has a thickened vein along its centre called the

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2. In a _____ leaf, the leaf blade is clearly divided into many distinct parts.

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3. State true or false. In alternate arrangement, a set of three or more leaves grows from the same node.

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4. State True or False.

Leaf spines help to reduce the loss of water by transpiration.

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5. State True or False.

The leaves of Opuntia are modified into spines.

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Test Yourself I Multiple Choice Questions

1. Which of the following is a modified leaf?

A. Spines of cactus

B. Maize

C. Sugarcane

D. Banyan

Answer:

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2. Veins are present in

A. Stems

B. Roots

C. Leaves

D. Seeds

Answer:

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3. The flat portion of leaf is called

A. petiole

B. midrib

C. lamina

D. vein

Answer:

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4. Main function of a leaf is to

A. prepare food for the plant

B. protect the plant

C. anchor the plant

D. distribute food in the plant body

Answer:

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Test Yourself Ii Fill In The Blanks

1. In cactus, leaves are modified into _____

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2. Leaves are green as they contain .....

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3. In pitcher plant, ... are modified for trapping insects.

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4. In the shoot system, leaves arise from _____on the stem.

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5. Plants synthesize food by the process of _____

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6. Tiny pores present on the leaf surface are called _____

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7. Bryophyllum shows vegetative propagation by _____

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Test Yourself Iii Answer The Following Questions

1. Define (i) Leaf (ii) Venation (iii) Phyllotaxy

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2. What imparts green colour to a leaf?

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3. Name the following:

A plant with no leaf.

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4. Name the following:

A plant with variegated leaf.

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5. Name the following:

A plant in which leaves are reduced to spines.

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6. Name the following:

Two plants in which leaves are modified into tendrils.

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7. Name the following:

Three plants having reticulate venation in the leaves.

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8. Name the following:

Three plants having parallel venation in the leaves.

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9. Give differences between (i) simple and compound leaves (ii) reticulate and parallel venation.

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10. Write three functions of leaves.

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11. What is vegetative propagation? How does it take place in Bryophyllum?

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12. Why no seeds are produced by vegetative propagation?

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13. Why are leaves modified into spines in prickly pear?

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Review Questons Multiple Choice Questions

1. Identify the plant which has compound leaves :

A. Banana

B. Banyan

C. Mango

D. Rose

Answer:

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2. Which one of the following is not an insectivorous plant :

A. Pitcher plant

B. Benus flytrap

C. Bladderwort

D. Cactus

Answer:

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3. Parallel venation occurs in

A. Banana

B. Mango

C. Banya

D. Guava

Answer:

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4. The point on the stem from where the leaf arises is :

A. Petiole

B. Lamina

C. Node

D. Trunk

Answer:

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5. Which one of the following is essential for photosynthesis:

A. Carbond dioxide

B. Nitrogen

C. Oxygen

D. Soil

Answer:

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Review Questons Short Answer Questions

1. Name the

The part of the plant which grow under the ground : ----------

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2. Name the

The part of the plant which grows above the soil : ----------

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3. Name the

The wide flat protion of the leaf : ----------

-

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4. What are the four functions of roots ?

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5. Mention the functions of the following :

(i) Spines

(ii) Tendril

(iii) Scale leaves

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6. Define venation. What are the differennt types of venation found in the leaves ?

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7. Describe the modifications of leaf in any one isectivorous plant.

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8. Write the two main functions of leaves.

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9. Define :

(i) Photosynthesis

(iii) Transpiration

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Review Questons Long Answer Questions Write The Answer In Your Notebook

1. Giving examples, differentiate between the Tap root and fibrous root.

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2. Simple and compound leaf

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3. Distinguish between reticulate venation and parallel venation.

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4. What is the modification seen in Bryophyllum ? Explain.

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5. What purpose is served by the spines borne on the leaves of cactus ?

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6. Explain why leaf survival is so important to the plant ?

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7. Give an example of the following and draw generalized diagrams for the same :

(i) Simple leaf and compound leaf.

(ii) Parallel venation and reticulate venation.

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8. Enlist some of the advantages of transpiration to green plants.

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9. Why do some plants have to trap insects ?

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10. Explain some of the modifications of leaves found in plants.

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11. What is a leaf tendril? How does it help the plant?

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12. Complete the crossword using the clues given below.

Clues across :

1. Plant that bears buds in leaves for propagation.

2. The flattened green part of leaf.

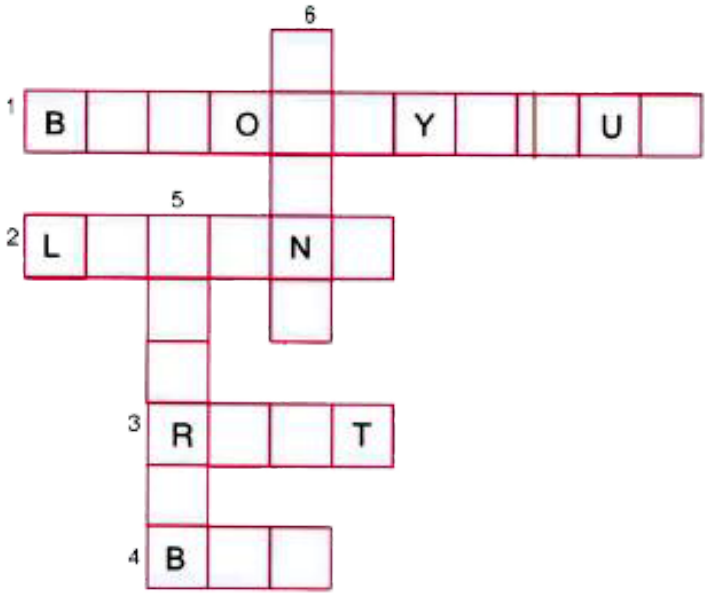
3. Underground plant part.

4. Structure that develops into flower.

Clues down :

5. The central big vein of a leaf.

6. A modification seen in cactus.



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