

Class 7 answer sheet

Chapter- 1 Nutrition in plants

Q.1. Why do organisms need to take food?

Ans- Food is necessary for all organism. Food gives energy to organism's body to perform the. Following activities :-

1) move here and there.

2) transportation of. Various types of substance in organism's body, like Blood, oxygen e.t.c

3) to heal the damaged part of the body

4) for reproduction

Q.2. Distinguish between a parasite and a saprotroph.

Ans- Parasite: The organism that grows on the body of another organism and derives nutrients from it is known as a parasite. The organism that obtains nutrients from the dead or decaying organic matter is called saprotroph. They take the ready-made food from the host. They take the digested and decayed food. They directly feed on living organisms for their nutrition. They feed on dead and decaying organism. Examples- Cuscuta and orchids. Examples- Fungi and some bacteria.

Q.3. How would you test the presence of starch in leaves?

Ans- Steps to test the presence of starch in leaves :

Step 1: A fresh leaf is taken.

Step 2: The leaf is boiled in water for few minutes to kill the cells in the leaf.

Step 3: Now, dip this leaf in iodine solution.

Step 4: The color of the leaf will change into blue black color when iodine is added to it which shows the presence of starch in it.

Q.4. Give a brief description of the process of synthesis of food in green plants.

Ans- the process synthesis of food in the plants with the help of chlorophyll and carbon dioxide in the presence of sunlight.

Water and minerals present in the soil are absorbed by the roots and transported to the leaves by the vessels.

Carbon dioxide from air is taken through stomata present in leaves.

Leaves are the food factories of the plants which capture the energy of the sunlight with the help of chlorophyll. This energy is used to synthesize food from carbon dioxide and water.

Write from book

Q.5. Show with the help of a sketch that the plants are the ultimate source of food.

Ans-The food chain shows that the plant is the ultimate producer. Only plant can produce food and rest of other organisms are directly or indirectly dependent on it.

Q.6. Fill in the blanks:

- (a) Green plants are called autotrophs since they synthesise their own food.
- (b) The food synthesised by the plants is stored as starch.
- (c) In photosynthesis solar energy is captured by the pigment called chlorophyll .
- (d) During photosynthesis plants take in carbon dioxide and release oxygen.

Q.7. Name the following:

- (i) A parasitic plant with yellow, slender and tubular stem.
  - (ii) A plant that has both autotrophic and heterotrophic mode of nutrition.
  - (iii) The pores through which leaves exchange gases.
- (i) Cuscuta (Amarbel)
  - (ii) Pitcher plant
  - (iii) Stomata