



## CLASS NOTES-ANSWERS

1) Why do organisms take food?

**Answer:**

All organisms need food for many purposes:

- a) The function of food is to help in growth.
- b) Food provides energy for movements and life functions.
- c) Food is also needed to replace and repair damaged parts of the body.
- d) Food gives us resistance to fighting diseases and protects us from infections.

2) Distinguish between a parasite and a saprotroph.

| Parasites   | Saprotroph   |
|---|--|
| Parasites live on or in a host and get their food at the expense of their host. | Saprotrophs acquire nutrients from dead and decaying matter. |
| Parasites feed on a living organism.  | Saprotrophs feed on dead and decaying organism.              |

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

**Answer:** To test for the presence of starch in leaves, one can conduct an Iodine Test. This involves boiling the leaves in alcohol to remove chlorophyll and adding two drops of iodine solution. If the solution turns blue, it indicates the presence of starch.

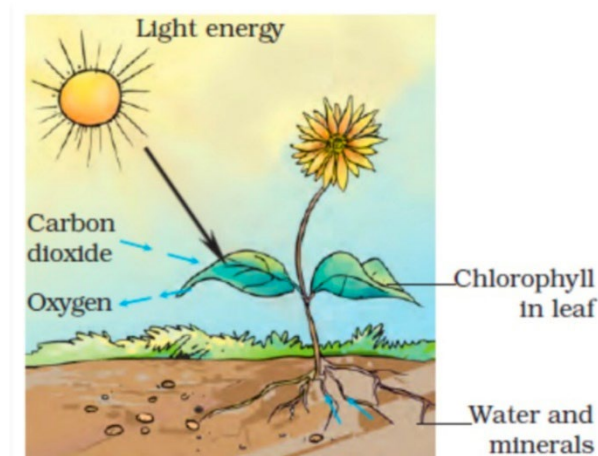
4) Give a brief description of the process of synthesis of food in green plants.

**Answer:** Green plants use a process called photosynthesis to prepare their food. It is the process where, in the presence of chlorophyll, plants use the energy from the sun to synthesise food using carbon dioxide and water.

The process is as follows,

- Carbon dioxide from the air enters the leaves through pores called stomata.
- Water in the soil is absorbed by the roots and is transported to the leaves.
- Chlorophyll traps the sunlight.
- Water and carbon dioxide react with the help of sunlight.
- Carbohydrates and glucose are formed.

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



**Fig. 1.3** Diagram showing photosynthesis

6) Fill in the blanks:

- a) Green plants are called autotrophs since they synthesise their own food.
- b) The food synthesised by plants is stored as starch.



- c) In photosynthesis, solar energy is absorbed by the pigment called chlorophyll.
- d) During photosynthesis plants take in carbon dioxide and release oxygen gas.

7) Name the following:

- i) A parasitic plant with yellow, slender and branched stem

Cuscuta

- ii) A plant that is partially autotrophic

Pitcher plant (Any insectivorous plant)

- iii) The pores through which leaves exchange gases.

Stomata

8) Tick the correct answer:

- a) Cactus is an example of

i) autotroph

ii) parasite

iii) saprotroph

iv) host

- b) The plant that traps and feeds on insects is

i) cuscuta

ii) china rose

iii) pitcher plant

iv) rose





9) Match the items given in column I with those in column II:

| Column I    | Column II     |
|-------------|---------------|
| Chlorophyll | Rhizobium     |
| Nitrogen    | Heterotrophs  |
| Cuscuta     | Pitcher plant |
| Animals     | Leaf          |
| Insects     | Parasite      |

10) Mark 'T' if the statement is true and 'F' if it is false:

- i) Carbon dioxide is released during photosynthesis. F
- ii) Plants which synthesise their food are called saprotrophs. F
- iii) The product of photosynthesis is not a protein. T
- iv) Solar energy is converted into chemical energy during Photosynthesis. T

11) Choose the correct option from the following:

Which part of the plant takes in carbon dioxide from the air for photosynthesis?

- i) Root hair
- ii)  Stomata
- iii) Leaf Veins
- iv) Petals



12) Choose the correct option from the following:

Plants take carbon dioxide from the atmosphere mainly through their:

- i) Roots
- ii) Stems
- iii) Flowers
- iv)  Leaves

13) Choose the correct option from the following:

Fruit and vegetable crops are grown in large greenhouses because it protects crops from external climatic conditions and provides suitable temperature for the growth of crops.

Advantages to farmers while growing fruits and vegetable crops inside the greenhouses are:

- 1) It protects crops from diseases and adverse climatic conditions.
- 2) It protects crops from wind and rodents.

