

Class vii
Science
Chapter 1

Que-ans

Question 1:

Why do organisms need to take food?

Answer 1:

All organisms need to take food to get energy for the growth, development and maintenance of their bodies.

Question 2:

Distinguish between a parasite and a saprotroph.

Answer 2:

Difference between a parasite and a saprotroph:

Ans. Parasite

1. Organisms derive nutrition from the body of other living organisms (host) are parasites.

2. Example: Cuscata (Amar bel)

Saprotroph

1. Plants which derive nutrition from dead and decaying organisms are called saprotrophs.

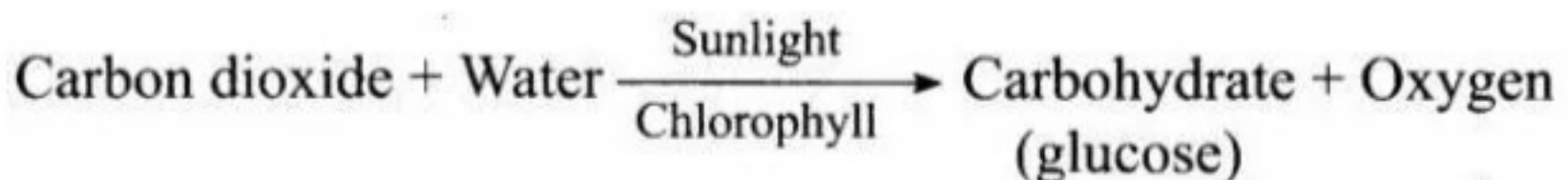
2. Example: Mushrooms.

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

Ans. The presence of starch in leaves can be tested by Iodine test. When we remove chlorophyll from leaf by boiling it in alcohol and then put 2 drops of iodine solution, its colour change to blue indicates the presence of starch.

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

Ans. The green plants have chlorophyll in the leaves. The leaves use CO₂ and water to make food in presence of sunlight.



Question 5:

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

Answer 5:

All the living being depends on plants whether directly or indirectly.

For example, the plant eater animals depends directly on plants but carnivore depends indirectly on plants.

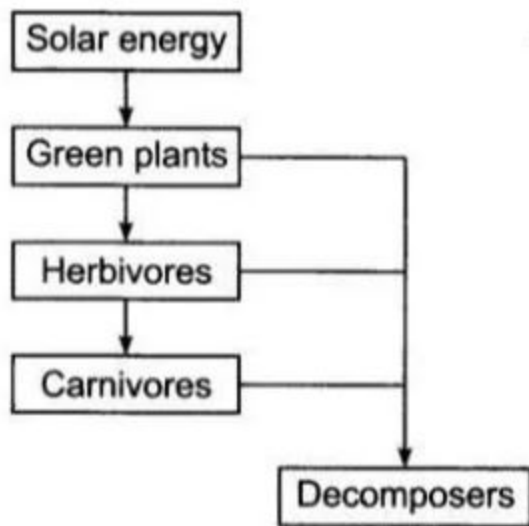


Fig. 1.3 Sketch to show that plants are the ultimate source of food.

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(Class - VII)

Question 6:

Fill in the blanks:

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

Answer 6:

- (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**.

Question 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.

Answer 7:

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

Question 8:

Tick the correct answer:

- (a) Amarbel is an example of:
 - (i) autotroph (ii) parasite (iii) saprotroph (iv) host
- (b) The plant which traps and feeds on insects is:
 - (i) Cuscuta (ii) china rose (iii) pitcher plant (iv) rose

Answer 8:

- (a) Amarbel is an example of (ii) parasite.
- (b) The plant which traps and feeds on insects is (iii) pitcher plant.

Question 9:

Match the items given in Column I with those in Column II:

Column I

Chlorophyll
Nitrogen
Amarbel
Animals
Insects

Column II

Bacteria
Heterotrophs
Pitcher plant
Leaf
Parasite

Answer 9:

Column I

Chlorophyll
Nitrogen
Amarbel
Animals
Insects

Column II

Leaf
Bacteria
Parasite
Heterotrophs
Pitcher plant

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Question 10:

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

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

Answer 10:

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

Question 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) Sepals

Answer 11:

- (ii) Stomata

Question 12:

Choose the correct option from the following:

Plants take carbon dioxide from the atmosphere mainly through their:

- (i) roots
- (ii) stem
- (iii) flowers
- (iv) leaves

Answer 12:

- (iv) leaves

