

# NCERT SOLUTIONS

## CLASS-VII SCIENCE

### CHAPTER-1 NUTRITION IN PLANTS

1. Why organisms need to take food?

Ans:

Growth is the main reason for all the organisms to take food. Food provides essential energy to run and walk. The main reason is to repair the damaged and injured parts of the body and also, it provides a shield against deadly diseases and increases immunity against many infections.

2. Write a difference between a parasite and a saprotroph.

Ans:

Parasite

1. Parasites are being fed by living organisms.
2. Parasites feed on living organisms that are called hosts

Saprotrophs

1. Saprotrophs are being fed by dead and decaying materials.
2. Saprotrophs do not feed on living organisms

3. How are leaves tested for starch?

Ans:

Iodine is used to test the starch in leaves by this scientific way: Chlorophyll from leaf should be removed by boiling it in alcohol, then two drops of iodine are added. If the colour changes to blue, then it indicates the presence of starch in the leaves.

4. Explain food synthesis in green plants by a proper brief description:

Ans:

Leaves do have chlorophyll in them. With the presence of sunlight, leaves use carbon dioxide and H<sub>2</sub>O to make food. The reaction goes like this:

"Carbon dioxide when added with water in presence of sunlight and chlorophyll gives carbohydrate which is nothing but glucose, and oxygen".

5. How plants play the role of being the primary source of food?

Ans:

The reaction to show how the plants are the primary source of food:

Solar energy to the green plants. And Green plants to the Herbivores. And Herbivores to the Carnivores. And all three Green plants, herbivores, Carnivores to Decomposers.

6. Fill the blanks in the following sentences:

1. \_\_\_\_\_ are also called green plants, because they produce their own food by synthesizing them.
2. \_\_\_\_\_ is stored as the food synthesized in plants.
3. The solar energy is captured by the pigment \_\_\_\_\_ during photosynthesis.

4. \_\_\_\_\_ and \_\_\_\_\_ are taken in and released during photosynthesis by plants.

Ans: 1. Autotrophs 2. starch 3. chlorophyll 4. CO<sub>2</sub> and O<sub>2</sub>

7. Guess the following:

1. A plant which is parasitic and yellow, tubular and slender.
2. The plant which has both autotrophic and heterotrophic modes of nutrition.
3. Gases are exchanged through these pores.

Ans: 1. Cuscuta 2. insectivorous plant 3. stomata

8. Write the right answer:

1. An example of parasite is \_\_\_\_\_ Ans: Amarbel
2. The plant which eats by trapping insects is \_\_\_\_\_ Ans: Pitcher plant

9. Match the table 1 with table 2 :

Column I	Column II
Chlorophyll	Bacteria
Nitrogen	Heterotrophs
Amarbel	Pitcher plants
Animals	Leaf
Insects	Parasite

Ans:

Column I	Column II
Chlorophyll	Leaf
Nitrogen	Bacteria
Amarbel	Parasite
Animals	Heterotrophs
Insects	Pitcher plants

10. Mark true and false with T and F

1. In photosynthesis, CO<sub>2</sub> is being released.
2. Protein is a product of photosynthesis.
3. Chemical energy is the product of photosynthesis.
4. Saprotrophs are plants that synthesise food by themselves.

Ans: 1.F 2.T 3.T 4.F

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

Ans: Stomata

12. Carbon dioxide is taken in by plants from air through their:

Ans: Stomata in leaves

