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Nutrition in Plants!

- 1) Autotrophic → The mode of nutrition in which organisms make food themselves from simple substances is called autotrophic nutrition.
- 2) Chlorophyll → The leaves have a green pigment called chlorophyll. It helps leaves to capture the energy of the sunlight.
- 3) Heterotrophs → Like humans and animals such plants depend on the food produced by other plants. They use the Heterotrophs.
- 4) Host → The plants on which it climbs is called the host.
- 5) Insectivorous → The insect is digested by the digestive juices secreted in the pitcher and its nutrients are absorbed. Such insect-eating plants are called Insectivorous.
6. Nutrients → These components of food are called Nutrients.

7. Nutrition → The nutrition enable living organism to build their bodies, to grow to replace damage part of their bodies and provide the energy to carry out life processes nutrition.

8. Photosynthesis → Since the synthesis of food occurs in the presence of sunlight, it is called photosynthesis.

9. Parasite → Since it deprives the host of valuable nutrients *Cuscuta* is called a parasite.

10. Saprotrophs → Such organisms with Saprotrophic mode of nutrition are called Saprotrophs.

11. Saprotrophic → This mode of nutrition in which organism take in nutrients from dead and decaying matter is called Saprotrophic.

12. Stomata → These pores are surrounded by guard cells such pores are called stomata.

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Nutrition in plants?

Q1. Why do organisms take food?

- Ans Organisms need food to -
- i) get energy to do work
 - ii) build up body
 - iii) repair damages in the body.
 - iv) maintain the function of body.

Q2 Distinguish between a parasite and a saprotroph.

- | | |
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| <p>Ans <u>Parasite</u></p> <ul style="list-style-type: none"> i) Parasite take food from living organism ii) Parasite mostly live in or on host. | <p><u>Saprotroph</u></p> <ul style="list-style-type: none"> i) They take food from dead and decay material. ii) They live on dead and decaying stuff. |
|--|---|

Q3 How would you test the presence of starch in the leaf?

Ans When Iodine comes in contact with starch a dark blue black colour appears. By dropping Iodine solution on the leaves, we can check presence of Iodine.

Q4 Give a brief description of the process of synthesis of food in green plants.

Ans Formation of carbohydrate is presence of water, chlorophyll, and sunlight by green plants is called photosynthesis.

Carbon dioxide + water $\xrightarrow{\text{Sunlight}}$ Carbohydrate
Chlorophyll + Oxygen

Q5 Show with the help of a sketch that plants are the ultimate source of food?

Ans Grass \rightarrow Grasshopper \rightarrow Frog \rightarrow Eagle

Q6 Fill in the blanks.

i) Green plants are called Autotroph since they synthesise their own foods.

ii) The food synthesised by plants is stored as Starch.

iii) In photosynthesis solar energy is absorbed by the pigment called Chlorophyll.

iv) During photosynthesis plants take in Carbon dioxide and release Oxygen gas.

Q7 Name the following:

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

Ans Cuscuta.

ii) A plants that is partially autotrophic.

Ans Pitcher plant.

iii) The pores through which leaves exchange gases.

Ans Stomata.

Q8 Tick the correct answer :

a) Cuscuta 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

9) Match the following.

Chlorophyll — leaf

Nitrogen — Rhizobium

Cuscuta - Parasite

Animal - Heterotroph

Insects - pitcher plant

10. True / False

i) Carbon dioxide is release during the process of photosynthesis (F.)

ii) Plants which synthesis their food are called Saprotrophs (F.)

iii) The products of photosynthesis is not a portion (T.)

iv) Solar energy is converted into chemical energy during photosynthesis (F.)

Q11. Choose the correct option.

a) which part of a plant takes in carbon dioxide from the air for photosynthesis

Ans Stomata

Q12 Choose the correct option o

a) plant take carbon dioxide from the atmosphere mainly through their leaves.

Ans

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