

Chapter 1 – Nutrition in Plants

Home Assignment Class 7th : Subject- Science : GSSS Machhike

Date 01-04-2020 : Teacher- Kirandeep Singh (9463243115)

Question 1-Why do organisms take food?

ANSWER- All organisms require food to get energy, to grow their body, to maintain good health and for their life processes.

Question 2. Distinguish between a parasite and a saprophyte.

ANSWER:

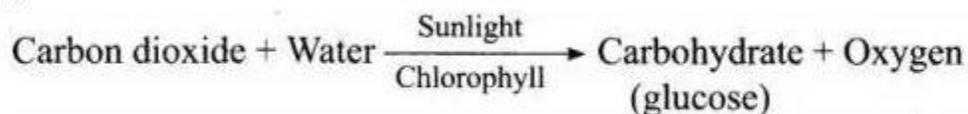
Saprophytes	Parasites
Acquire nutrients from dead and decaying matter	Parasites live on or in a host and get its food at the expense of its host
Example: Fungi	Example: roundworm

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

ANSWER: The presence of starch in leaves can be tested by iodine test. When we remove chlorophyll from leaf by boiling in alcohol and then put 2 drops of iodine solution on leaf, then blue-black color of leaf indicates presence of starch in leaf.

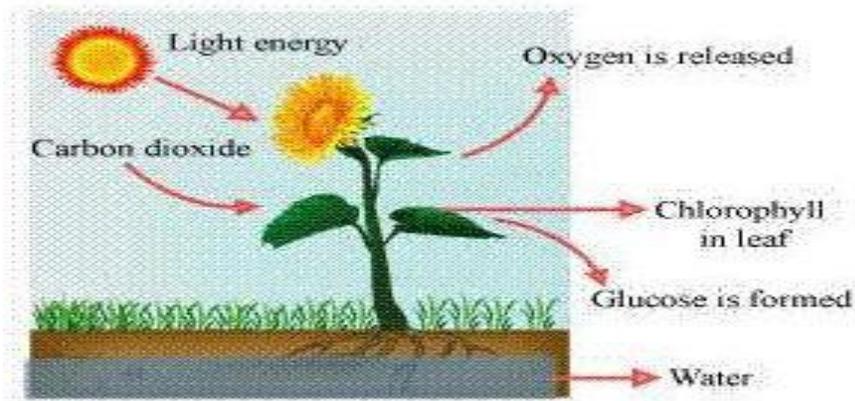
Question 4. Give a brief description of the process of synthesis of food in green plants

ANSWER: Green plants synthesis their food from water and carbon dioxide gas in the presence of Sun light and green pigment chlorophyll in leaves. This process is called photosynthesis.



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

ANSWER:



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.
- ii) A plant that is partially autotrophic.
- iii) The pores through which leaves exchange gases.

ANSWERS:

- i) Cuscuta
- ii) Pitcher plant
- iii) Stomata

8. 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 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

ANSWERS:

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

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 synthesis 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) stem (iii) flowers  (iv) leaves