



# INDIAN SCHOOL AL WADI AL KABIR



<b>CLASS: VII</b>	<b>DEPARTMENT: SCIENCE</b> <b>2023 – 2024</b>	<b>DATE: 18/4/2023</b>
<b>TEXTBOOK Q &amp; A</b>	<b>TOPIC: NUTRITION IN PLANTS</b>	<b>NOTE: A4 FILE FORMAT</b>
<b>NAME OF THE STUDENT:</b>	<b>CLASS &amp; SEC:</b>	<b>ROLL NO.</b>

### Q.1. Why do organisms need to take food?

- Ans** - Organism needs food –
  - to get the energy to do work.
  - to help in the growth and development of the body.
  - for the replacement and repairing of damaged parts of the body.
  - to fight against diseases and protects us from infections.

### Q.2. Distinguish between a parasite and a saprotroph.

**Ans** –

<b>Parasite</b>	<b>Saprotroph</b>
i. The organism that grows on the body of another organism and derives nutrients from it is known as a parasite.	i. The organism that obtains nutrients from the dead or decaying organic matter is called saprotroph.
ii. Examples of parasites are cuscuta and rafflesia	ii. Examples of saprotrophs are fungi and some bacteria

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

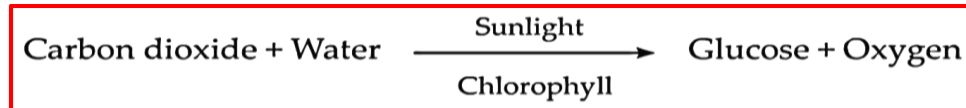
- Ans** -
- Take two healthy potted plants of the same kind.
  - Keep one potted plant in a dark room for one or two days in order to remove all the starch from the leaves.
  - Keep the other plant in sunlight.
  - Now, take one leaf from each potted plant and perform iodine test with leaves of both the plants.

- v. No blue-black colour will be observed on the leaves of plant kept in the dark room.
- vi. This indicates the absence of starch.
- vii. Blue-black colour will be observed on the leaves of the plant kept in sunlight.  
This indicates the presence of starch.

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

**Ans** – Green plants are the only organisms that can prepare food for themselves .

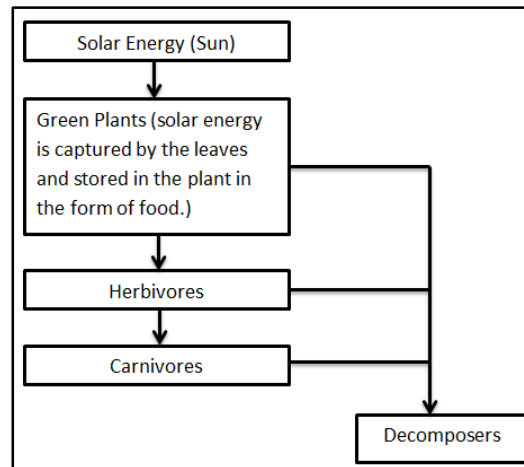
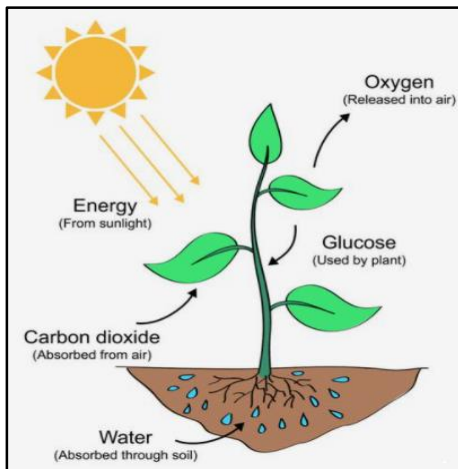
In green plants , the synthesis of food occurs through a process called photosynthesis. During photosynthesis, chlorophyll containing cells of the leaves use carbon dioxide and water to synthesise carbohydrates in the presence of sunlight. The process can be represented by an equation:



During this process oxygen is released. The carbohydrates formed ultimately get converted into starch.

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

**Ans** –



**Q.6. Fill in the blanks:**

- 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.

**Q.7. Name the following:**

- (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
- (iii) The pores through which leaves exchange gases. - Stomata

**Q.8. Tick the correct answer:**

**a) Amarbel (Cuscuta) is an example of -**

- i) autotroph      ii) parasite      iii) saprotroph      iv) host

**[Ans - (ii) parasite]**

**b) The plant which traps and feeds on insects is -**

- i) Cuscuta      ii) china rose      iii) pitcher plant      iv) rose

**[Ans - (iii) pitcher plant]**

**Q.9. Match the items given in Column I with those in Column II:**

<i>Column I</i>	<i>Column II</i>
Chlorophyll	Bacteria
Nitrogen	Heterotrophs
Amarbel	Pitcher plant
Animals	Leaf
Insects	Parasite

**Ans -**

<i>Column I</i>	<i>Column II</i>
Chlorophyll	Leaf
Nitrogen	Bacteria
Amarbel	Parasite
Animals	Heterotrophs
Insects	Pitcher plant

**Q.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 themselves 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)**

**Q. 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

**[Ans - (ii) Stomata]**

**Q.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

**[Ans - (iv) leaves]**

<b>PREPARED BY</b> <b>MRS SUMA SENU</b>	<b>CHECKED BY</b> <b>HOD SCIENCE &amp; FRENCH</b>
--	--