



KALPAVRUKSHA MODEL SCHOOL

Answers - Practical Based Assignments - 2

Class: VII

Sub: Biology

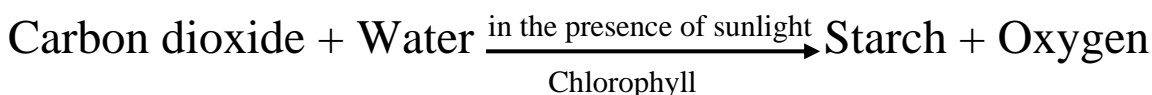
Date: 07.08.2021

Topic: Nutrition in plants

I. Answer the following questions:

1. Define photosynthesis. Write its equation.

Ans: The process by which green plants prepare their own food by using carbon dioxide and water in the presence of sunlight and chlorophyll is called photosynthesis.



2. What are the general conditions necessary for photosynthesis?

Ans: The general conditions necessary for photosynthesis are:

- a. the presence of a green pigment – chlorophyll
- b. the presence of sunlight
- c. the availability of carbon dioxide
- d. availability water

3. Where do the green plants obtain the necessary things for photosynthesis from? Explain.

Ans: Chlorophyll is usually present in the leaves in structures called chloroplasts. Light energy is absorbed by the chlorophyll. Carbon dioxide is obtained from the atmosphere through small openings called stomata mostly present on the underside of the leaves. The root system of plants enables them to obtain water from the soil. Water and soluble

nutrients are transported from roots to other parts of the plant through structures called xylem. The starch formed as a result of photosynthesis is transported to the various parts of the plants by structures called phloem.

4. Explain an activity to show that carbon dioxide is necessary for photosynthesis.

Ans: i) Take a potted plant and place it inside a dark room for few hours. Water it.

ii) Pour dilute potassium hydroxide solution into a conical flask. The solution absorbs carbon dioxide from the air in the conical flask.

iii) Place one of the leaves inside the flask without touching the solution and cork it.

iv) Now, keep the entire arrangement in sunlight.

v) After few hours, test the leaf in the flask and another leaf of the same plant for starch, using iodine solution.

vi) When iodine solution is added, the leaf that was clasped inside the conical flask shows no change whereas the other leaf turns blue-black.

This shows that the carbon dioxide is necessary for photosynthesis.

5. Name the chemical that turns milky when it reacts with carbon dioxide.

Ans: Lime water (Calcium hydroxide) turns milky when it reacts with carbon dioxide.