

Chapter 4: Photosynthesis

Worksheet 1

1. Fill in the blanks.

- (i) _____ is a photosynthetic pigment.
- (ii) _____ is converted into starch for storage.
- (iii) _____ is transported through phloem into all the parts of plants.
- (iv) _____ are the microscopic openings on the under surface of leaf.
- (v) _____ gas is taken and _____ gas is released by green plants during photosynthesis.

2. Write T for true and F for false statement.

- (i) Green plants have heterotrophic mode of nutrition.
- (ii) At night, stomata get closed.
- (iii) Food is formed as glucose during photosynthesis.
- (iv) Oxygen is necessary for photosynthesis.
- (v) Carbon dioxide is released during photosynthesis.

3. Match the following.

Column A

- (i) Green plants
- (ii) *Hydrilla*
- (iii) By-product
- (iv) Water
- (v) Starch

Column B

- (a) Stored food
- (b) Source of oxygen
- (c) Water plant
- (d) Oxygen
- (e) Autotrophs

4. Give one word for the following.

- (i) Splitting of water into H^+ and OH^- ions in presence of light
- (ii) Process of removing starch from the leaves of green plant
- (iii) End-products of photosynthesis
- (iv) Transportation of food through phloem
- (v) The light in which photosynthesis is minimum

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Worksheet 2

1. Tick the correct answer.

- (i) Potassium hydroxide absorbs
(a) carbon dioxide
(b) oxygen
(c) water
(d) both carbon dioxide and water
- (ii) At high temperature, rate of photosynthesis will
(a) be slow (b) be fast (c) stop (d) remain the same
- (iii) Iodine solution is used to test
(a) starch (b) sugars (c) proteins (d) fats
- (iv) The gas taken and released by plants during photosynthesis
(a) oxygen and nitrogen (b) carbon dioxide and nitrogen
(c) carbon dioxide and oxygen (d) nitrogen and oxygen
- (v) The plant taken for photosynthesis experiments is
(a) *Spirogyra* (b) *Hydrilla* (c) Lotus (d) *Vallisneria*

2. Correct the statements by replacing wrong word(s).

- (i) Plants give carbon dioxide for respiration.
- (ii) Benedict's solution is used to test starch.
- (iii) Photosynthesis occurs in the invisible part of spectrum.
- (iv) Food in plants is stored as proteins.
- (v) *Hydrilla* is a desert plant.

3. Encircle the correct word.

- (i) **Potassium hydroxide/Iodine** turns blue-black in the presence of starch.
- (ii) **Too bright/less** light destroys chlorophyll.
- (iii) CO_2/O_2 is necessary for photosynthesis.
- (iv) CO_2/O_2 is necessary for respiration.
- (v) The **chlorophyll/stomata** of leaf get destroyed by boiling it in **iodine/alcohol**.