Assignment Subject: - Science Class: - VII Teacher: Mrs. Harpreet Kaur

Name: _____ Class & Sec: _____ Roll No. _____ Date: 30.03.2020

CHAPTER – Nutrition in plants

Nutrition: It is the mode of taking food by an organism and its utilization by the body.

Nutrients: The components of food that provide nourishment to the body.

All organisms take food and utilize it to get energy for the growth and maintenance of their bodies.

Green plants synthesize their food themselves by the process of photosynthesis. They are autotrophs.

Photosynthesis: Green plants prepare their own food with the help of chlorophyll (found in green plants), carbon dioxide and water taken from the environment in presence of sunlight. This process is known as photosynthesis.

Plants use simple chemical substances like carbon dioxide, water and minerals for the synthesis of food.

Chlorophyll and sunlight are the essential requirements for photosynthesis.

Complex chemical substances such as carbohydrates are the products of photosynthesis.

Solar energy is stored in the form of food in the leaves with the help of chlorophyll. Oxygen is produced during photosynthesis.

Oxygen released in photosynthesis is utilised by living organisms for their survival. Fungi derive nutrition from dead, decaying matter. They are saprotrophs. Plants like Cuscuta are parasites. They take food from the host plant.

A few plants and all animals are dependent on others for their nutrition and are called heterotrophs.

Parasitic: Organisms that live on the body of other organisms. All parasitic

plants feed on other plants as either:

i. Partial Parasites: Obtain some of their nutrition from the host, e.g. painted cup
ii. Total Parasites: dependent completely on the host for nutrition, e.g. mistletoe.

Saprophytic: Organisms that obtain nutrition from dead and decaying plant and animal matter. Mushrooms, moulds and certain types of fungi and bacteria.

Insectivorous Plants: Green plants which obtain their nourishment partly from soil and atmosphere and partly from small insects. Example: pitcher plant, bladderwort, and venus fly trap.

Symbiosis: Mode of nutrition in which two different individuals associate with each other to fulfil

their requirement of food.

Lichens found on tree trunks is the association between algae and fungus. Algae obtains water from fungus and it in turn obtains food from algae.

Q1. What are fluffy umbrella-like patches growing on rotting wood during the rainy season called?

Ans. _____

Q2. How can cells be seen?

Ans. _____

Q3. Where is nucleus located in a cell?

Ans. _____

Q4. What are carbohydrates made up of?

Ans. _____

Q5. From where do plants get raw materials to prepare their food?

Ans. _____

Q6. Where does the synthesis of food in a plant usually take place?

Ans. _____

Q7. What is the ultimate source of energy for all living organisms?

Ans. _____

Q8. Write an equation that represents the process photosynthesis.

Ans. _____

Q9. What are the components of food?

Ans. _____

_____

Nutrition in Plants

Q1. What are fluffy umbrella-like patches growing on rotting wood during the rainy season called?

Ans. These organisms are called fungi.

Q2. How can cells be seen?

Ans. Most type of cells can be seen only under the microscope.

Q3. Where is nucleus located in a cell?

Ans. In most of the cell, nucleus is centrally located.

Q4. What are carbohydrates made up of?

Ans. The carbohydrates are made of carbon, hydrogen and oxygen.

Q5. From where do plants get raw materials to prepare their food?

Ans. Plants get raw materials to prepare their food from their surroundings.

Q6. Where does the synthesis of food in a plant usually take place?

Ans. The synthesis of food in plants occurs in leaves.

Q7. What is the ultimate source of energy for all living organisms?

Ans. Sun is the ultimate source of energy for all living organisms.

Q8. Write an equation that represents the process photosynthesis.

Ans.

carbon dioxide +	water	sunlight → chlorophyll	carbohydrate +	oxygen

Q9. What are the components of food?

Ans. Carbohydrates, proteins, fats, vitamins and minerals are components of food.

Nutrition in Plants

Q1. Fill in the blanks.

iii. In photosynthesis solar energy is captured by the pigment called_____.

iv. During photosynthesis plants take in_____and release_____.

v. _____in plant take in carbon dioxide from the air for photosynthesis.

vi. _____are the products of photosynthesis.

Q2. True/False

i. The food synthesized by the plants is stored as starch. _____

ii. Plants take carbon dioxide from the atmosphere mainly through their leaves. _____

iii. Solar energy is converted into electrical energy during photosynthesis. _____

iv. Carbon dioxide is released during photosynthesis. _____

v. The starch is also a carbohydrate. _____

Q3. Name a parasitic plant with yellow, slender and tubular stem.

Ans. _____

Q4. Give one example of parasite.

Ans. _____

Q5. Name one plant that traps and feeds on insects.

Ans. _____

Q6. Name a plant that has both autotrophic and heterotrophic mode of nutrition.

Ans. _____

Q1. Fill in the blanks.

i. In photosynthesis solar energy is captured by the pigment called chlorophyll.

ii. During photosynthesis plants take in carbon dioxide and release oxygen.

iii. Stomata in plant take in carbon dioxide from the air for photosynthesis.

iv. Carbohydrates are the products of photosynthesis.

Q2. True/False

i. The food synthesized by the plants is stored as starch. True

ii. Plants take carbon dioxide from the atmosphere mainly through their leaves. True

iii. Solar energy is converted into electrical energy during photosynthesis. False

iv. Carbon dioxide is released during photosynthesis. False

v. The starch is also a carbohydrate. True

Q3. Name a parasitic plant with yellow, slender and tubular stem.

Ans. Cuscuta

Q4. Give one example of parasite.

Ans. Amarbel

Q5. Name one plant that traps and feeds on insects.

Ans. Pitcher Plant

Q6. Name a plant that has both autotrophic and heterotrophic mode of nutrition.

Ans. Insectivorous Plant