

Nutrition in Plants

ORAL QUESTIONS

A. Answer these questions orally.

1. What is the green pigment that is essential for photosynthesis called?
2. What are the various components of food that are necessary for our body called?
3. Name the gas used by green plants to manufacture their food.
4. Where is chlorophyll present in green plants?
5. During photosynthesis, green plants convert solar energy into which type of energy?

PUZZLE/QUIZ

B. Solve the crossword puzzle with the help of the clues given.

ACROSS : 1. The components of food that are necessary for our body.

6. Pitcher plant is an example of this type of plant.

8. A plant with variegated leaves.

9. The ultimate source of energy.

10. A partial parasite.

DOWN : 1. The process of taking food by an organism and the utilisation by the body.

2. Organisms that synthesise their food from simple inorganic substances.

3. Another name for autotrophs.

4. The plant that provides food to the parasitic plant.

5. These are symbiotic organisms.

7. Association between two organisms in which both the organisms living together are benefited.

¹ N				I			S					
									² A			
							³ P				⁴ H	
						⁵ L			T			
⁶ I	N	⁷ S		C		I	V				U	
									T		T	
		M						U				
						E			O			
N								E				
	⁸ C	O				S						
								S	⁹ S			
¹⁰ M		S			E		O	E				

C. Given below are some jumbled words. Arrange them into meaningful words. Take help from the clues given in the brackets.

1. S S E A T P Y R H O P

(Organisms that derive nutrients from dead and decaying plants and animals)

2. A S T T A O M

(Tiny pores on the under surface of leaves)

3. S H H E P T O E R R T O

(Organisms which cannot manufacture their food)

4. A C T U U S C

(A total parasite)

5. M R U H I I B Z O

(These bacteria show symbiotic relationship with leguminous plants)

CLASS TEST

D. MCQ–Tick (3) the correct option.

1. Breaking down of complex insoluble organic compounds into simple soluble molecules is called

- | | | | |
|------------------|--------------------------|----------------|--------------------------|
| (a) Digestion | <input type="checkbox"/> | (b) Absorption | <input type="checkbox"/> |
| (c) Assimilation | <input type="checkbox"/> | (d) Egestion | <input type="checkbox"/> |

2. This organ in human begins with mouth and ends with anus

- | | | | |
|---------------|--------------------------|----------------------|--------------------------|
| (a) Stomach | <input type="checkbox"/> | (b) Alimentary canal | <input type="checkbox"/> |
| (c) Food pipe | <input type="checkbox"/> | (d) Buccal cavity | <input type="checkbox"/> |

3. In human, this type of teeth are used for tearing

- | | | | |
|--------------|--------------------------|---------------|--------------------------|
| (a) Molars | <input type="checkbox"/> | (b) Premolars | <input type="checkbox"/> |
| (c) Incisors | <input type="checkbox"/> | (d) Canines | <input type="checkbox"/> |

4. The largest gland in the human body is

- | | | | |
|-------------------|--------------------------|--------------------|--------------------------|
| (a) Adrenal gland | <input type="checkbox"/> | (b) Salivary gland | <input type="checkbox"/> |
| (c) Pancreas | <input type="checkbox"/> | (d) Liver | <input type="checkbox"/> |

E. Very short answer questions.

1. What is the full form of ATP?

2. What is photosynthesis?

3. What are the essential requirements for photosynthesis?

4. What is symbiotic relationship?

5. Name four insectivorous plants.

6. What type of nutrition is found in green plants?

7. What type of nutrition is found in nongreen plants?

8. In which type of plants is digestive juice secreted to digest the insects?

9. What is the naturally beneficial relationship between two living organisms called?

F. Short answer questions.

1. Differentiate between the following.

(a) Autotrophs and Heterotrophs

AUTOTROPHS	HETEROTROPHS

(b) Parasitic and Saprophytic Nutrition

PARASITIC NUTRITION	SAPROPHYTIC NUTRITION

2. Write the word equation for the process of photosynthesis in green plants.

3. In what form is food synthesised in green plants?

4. How do plants get the nitrogen required for the synthesis of proteins?

5. Is parasitic plant harmful for the host plant?

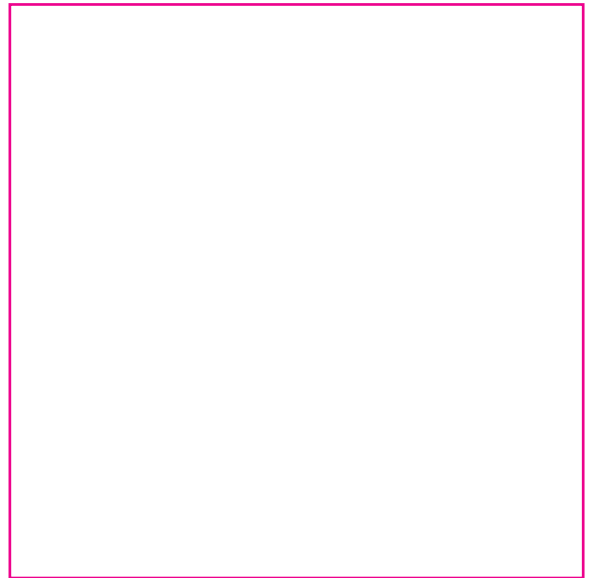
6. How do fruits and bread get fungal growth?

G. Long answer questions.

1. What special structure of leaves make it suitable for photosynthesis?

2. Explain how guard cells help in opening and closing of stomata.

3. Draw the diagrams of an open stomata and a closed stomata. Label them clearly.



4. Are all fungi harmful?

5. Explain the symbiotic relationship between leguminous plants and rhizobium.

HOME ASSIGNMENT

H. Think and answer.

1. Mistletoe has green leaves and can synthesise its food. Why is it called a partial parasite?

2. Coleus plant has red or brown coloured leaves, but carries out photosynthesis. How?

3. Insectivorous plants are green plants. They prepare their food by photosynthesis but still trap and digest insects. Why?

4. Sarthak kept a potted plant in dark for three days. He then plucked a leaf from this plant and tested it for starch. He found the result negative. What is the reason for this observation?

WORKSHEET

I. Give reasons for the following.

1. Our body cannot synthesise food from carbon dioxide, water and minerals like plants do.

2. Algae can prepare its food by photosynthesis.
