WORKSHEET 2

CHAPTER 1 – LIFE PROCESSES (I) NUTRITION

A. Tick (✓) the correct option.

1. The mode of nutrition in mushroom is
   a. autotrophic. b. holozoic. c. saprophytic. d. parasitic.
2. Which of the following has the longest small intestine?
   a. Carnivore b. Omnivore c. Herbivore d. Autotroph
3. The pancreatic juice does not contain which one of the following enzymes?
   a. Trypsin b. Ptyalin c. Amylase d. Lipase
4. In human body, food is finally digested in
   a. large intestine. b. small intestine. c. stomach. d. oesophagus.
5. The process of obtaining food by *Amoeba* is known as
   a. dialysis. b. cytokinesis. c. phagocytosis. d. amoebiasis.

B. Fill in the blanks.

1. Organisms that derive their food from decaying matter are called _____
2. *Amoeba* exhibits _____ nutrition.
3. The oral cavity opens into the _____
4. Pancreatic juice contains _____ for breakdown of fat.
5. The opening and closing of stomata is regulated by _____

C. State whether the given statements are true (T) or false (F).

1. Bile juice is acidic in nature.
2. Carbohydrates are stored in the form of glycogen in plants.
3. Guard cells are devoid of chloroplast.
4. Large intestine absorbs water from the undigested food.
5. CO_2 is not essential for photosynthesis.

D. Answer is one word.

1. A plant parasite.
2. Enzyme present in saliva.
3. An enzyme that digests protein.
4. Part of alimentary canal where protein is absorbed.
5. Finger-like projections present in small intestine.

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E. Answer the following questions.

1. Name the substances on which the following enzymes act in the human digestive system.
   (*i*) Trypsin (*ii*) Amylase (*iii*) Pepsin (*iv*) Lipase
2. Describe the process of nutrition in *Amoeba*. Draw labelled diagrams to show the various stages of nutrition.
3. Why do plants need nitrogen? How do they obtain it?
4. How are opening and closing of stomata regulated? Write any two functions of stomata.
5. What substances are present in pancreatic juice? What are their functions?

ANSWERS

WORKSHEET 2

A. Tick (✓) the correct option.

1. c	2. c	3. b	4. b	5. c

B. Fill in the blanks.

1. Saprophytes	2. Holozoic	3. Pharynx	4. Lipase	5. Guard cell

C. State whether the given statements are true (T) or false (F).

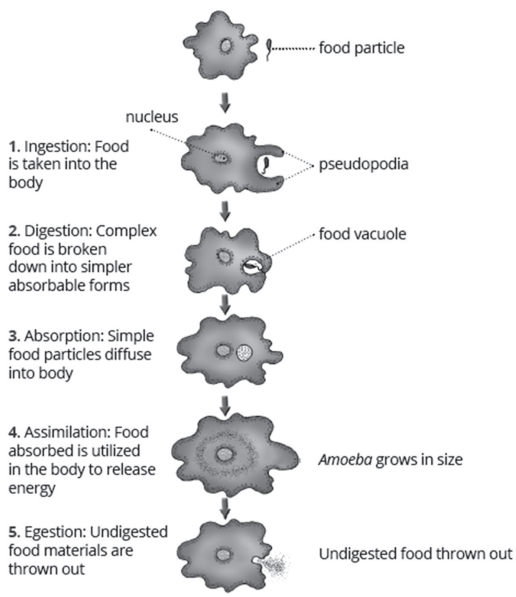
1. F	2. F	3. F	4. T	5. F

D. Answer in one word.

1. *Cuscuta*	2. Ptyalin	3. Pepsin	4. Small intestine	5. Villi

E. Answer the following questions.

1. (*i*) Typsin – Protein
   (*ii*) Amylase – Carbohydrate
   (*iii*) Pepsin – Protein
   (*iv*) Lipase – Lipid
2. The mode of nutrition in *Amoeba* is holozoic and the process of obtaining food by it is termed as phagocytosis. Process of nutrition in *Amoeba* is:
   (*i*) **Ingestion:** The food particles are captured by pseudopodia. The tips of pseudopodia encircling the prey fuses to form food vacuole.
   (*ii*) **Digestion:** Enzymes from the cytoplasm are secreted into the food vacuole which breaks complex food into simple form in the food vacuole.
   (*iii*) **Absorption:** Digested food diffuses into the cytoplasm from food vacuole.
   (*iv*) **Assimilation:** The absorbed food is utilized as per requirement in the cytoplasm and *Amoeba* grows.
   (*v*) **Egestion:** The undigested food is thrown out of the body by exocytosis.



Nutrition in *Amoeba*

3. Plants need nitrogen for the synthesis of proteins, nucleic acid and other essential compounds.

   Nitrogen is obtained from soil in the form of inorganic nitrates or nitrites.

4. This opening and closing of stomata is regulated by the guard cell. The guard cells swell when water flows into them causing the stomatal pore to open. Similarly the pore closes if the guard cells shrink. Stomata helps in exchange of gases, loss of water during transpiration and helps in temperature regulation.

5. Pancreatic juice contains four enzymes – trypsin, chymotrypsin, amylase and lipase.
   (*i*) Trypsin and chymotrypsin act on proteins and convert them into polypeptides.
   (*ii*) Amylase acts on starch and complex sugar and converts then to maltose.
   (*iii*) Lipase acts on emulsified fats and converts them to fatty acids and glycerol.