

Class7 Chapter 02 Nutrition in Animals Cordova Science

A. Tick(✓) the correct options

1. Which of the following is not a type of teeth?

- (a) Incisor (b) canine (c) molar (d) indicators ✓

2. The process of absorption occurs in

- (a) small intestine ✓ (b) large intestine (c) stomach (d) pancreas

3. Bile juice is stored in

- (a) pancreas (b) gall bladder ✓ (c) liver (d) stomach

4. Compound stomach is found in

- (a) humans (b) Amoeba (c) ruminants ✓

5. Bacteria act on the leftover food in the teeth and form

- (a) acids ✓ (b) bases (c) salts

6. Proboscis is present in

- (a) insects ✓ (b) humans (c) ruminants (d) bacteria

7. When a few drops of iodine solution are added to a boiled potato, it turns

- (a) green (b) yellow (c) blue (d) blue-black ✓

8. In cow, the food first goes into

- (a) reticulum (b) omasum (c) rumen ✓ (d) abomasum

B. Fill in the blanks:

1. The mucus protects the inner lining of the ... **stomach**....

2. The inner wall of the small intestine has folds called .. **plicae circulares**...

(Note : plicae circulares organized into finger-like projections known as villi)

3. The process in which the undigested food is removed from the body is called **egestion**.

4. The saliva contains an enzyme **salivary amylase** that breaks down the starch.

5. The tongue pushes the chewed food into a short muscular tube called the **esophagus**

6. The proteins get broken into **amino acids**

8. Constipation and stomach ulcers are **infections**

7. The **small intestine** is the longest part of the alimentary canal.

C. Match the following:

Column A

Column B

- | | |
|--------------------|--------------------------|
| 1. Liver | (a) cilia |
| 2. Large intestine | (b) pseudopodia |
| 3. Paramecium | (c) bile juice secretion |
| 4. Amoeba | (d) tearing teeth |
| 5. Canines | (e) absorption of water |

Ans:

- | | |
|--------------------|--------------------------|
| 1. Liver | (c) bile juice secretion |
| 2. Large intestine | (e) absorption of water |
| 3. Paramecium | (a) cilia |
| 4. Amoeba | (b) pseudopodia |
| 5. Canines | (d) tearing teeth |

D. Very Short Answer Questions:

1. Name two different tastes which can be detected by our tongue.

Ans: Bitter, sour

2. Name the cutting teeth.

Ans: incissor

3. What is the pushing down of food by the walls of oesophagus called?

Ans: peristalsis

4. Give the name of largest gland of our body.

Ans: Liver

5. Name the widest part of the alimentary canal.

Ans: Stomach

6. Name the white and hardest substance which covers the teeth.

Ans: enamel

7. What do salivary glands secrete?

Ans: amylase

8. Where are gastric glands present?

Ans: stomach

E. Short Answer Type-I Questions:

1. What is the function of saliva?

Ans: The digestive functions of saliva include moistening food, and helping to create a food bolus, so it can be swallowed easily.

Saliva contains the enzyme amylase, also called ptyalin, which is capable of breaking down starch into simpler sugars such as maltose and dextrin that can be further broken down in the small intestine

2. What is ingestion?

Ans: The process of taking food inside our mouth is known as ingestion.

3. What is chyme?

Ans: Partially digested food formed by the action of gastric juice in the stomach is called as chyme.

4. What happens to the undigested food in the body?

Ans: The undigested food passes to large intestine. Some water is absorbed and the semi solid waste (feces) is egested through anus.

5. What do you understand by the term assimilation?

Ans: The process of producing energy from the absorbed food is known as assimilation

6. Where is liver located? Give its function.

Ans: liver lies in front of stomach. Liver secrete bile that is stored in gall bladder. It make the digestion of fat faster.

Note: Bile juice contains no digestive enzymes, yet it is important for digestion. Bile juice has bile pigments such as bilirubin and biliverdin. These break down large fat globules into smaller globules so that the pancreatic enzymes can easily act on them. This process is known as emulsification of fats.

F. Short Answer Type-II Questions:

1. Why we cannot breathe and swallow at the same time?

Ans: Every time we swallow, the epiglottis closes the wind pipe. If we breathe and swallow at the same time, food or water enters wind pipe and we choke and cough.

2. In what substances carbohydrates, proteins and fats get converted into after digestion?

Ans: in small intestine Carbohydrates get converted into sugars. Proteins get converted into amino acids. Fats get converted into fatty acids and glycerol.

3. What are the functions performed by tongue?

Ans: tongue helps in process of chewing by pushing the food towards the teeth. It also help to mix the food with saliva.

4. Which part of the alimentary canals involved in (a) chewing of food (b) killing of bacteria (C) absorption of food (d) formation of faeces?

Ans: (a) chewing of food – Mouth (b) killing of bacteria – stomach (C) absorption of food – small intestine (d) formation of faeces – large intestine

5. Different types of teeth in our jaws have different functions, but they all work together to chew the food.

Ans: Different types of teeth in our jaws have different functions

(i) Incisors :- They help us in biting and cutting the food.

(ii) Canines : - They help us in piercing and tearing the pieces of meat.

(iii) Premolars:- They assist the molars by holding the food with their cusps and also crushing them.

(iv) Molars : - They help us in chewing and grinding the food so that it can be swallowed easily.

(b) What do we learn from our teeth that have different functions?

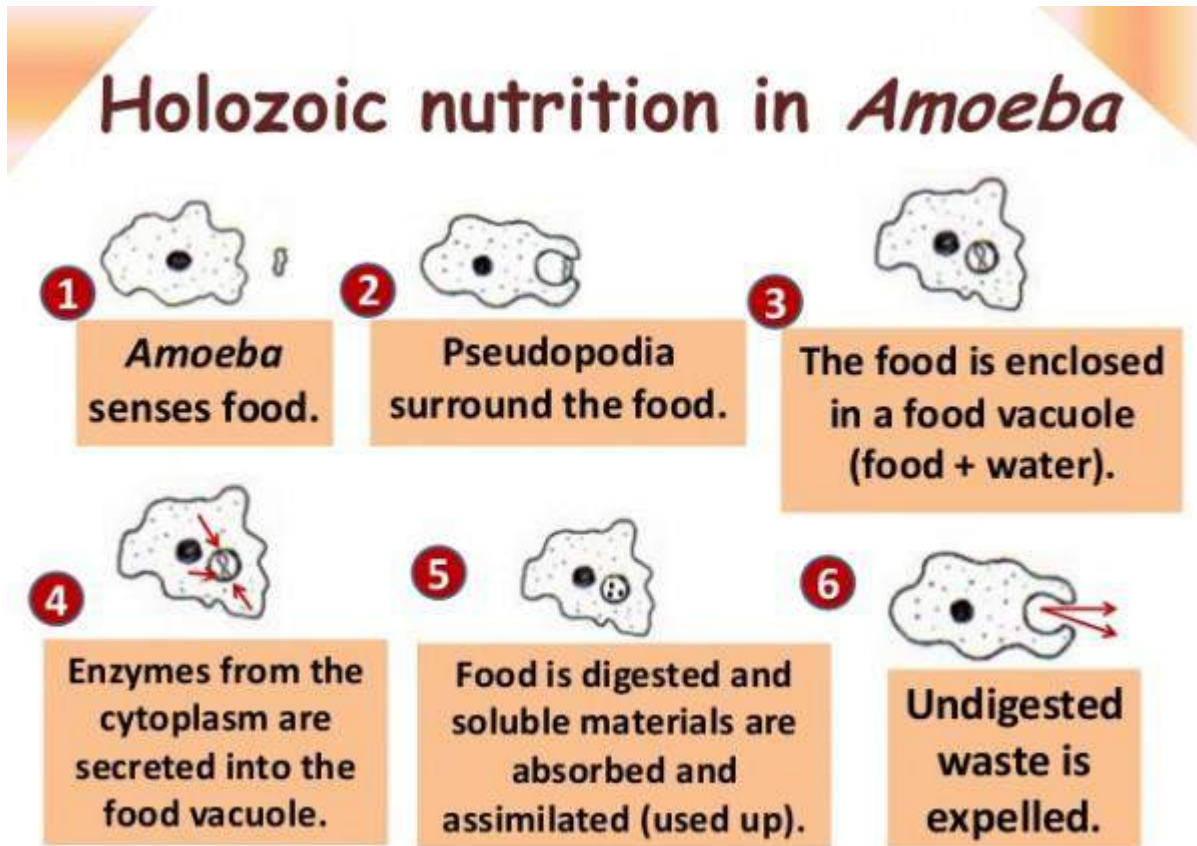
Ans: If we work united we will do any impossible work .

G. Long Answer Questions:

1. Briefly describe nutrition in Amoeba with the help of diagrams.

Ans: Amoeba takes in food by forming temporary finger-like projections called pseudopodia. The pseudopodia fuse over the food particle forming a food vacuole. The digestive enzymes from the surrounding cytoplasm enter into the food vacuole and breakdown the food into small, water soluble molecules by chemical reactions. The digested food from the food vacuole spreads into the whole of Amoeba cell and gets absorbed in the cytoplasm. A part of absorbed food is used to obtain energy through

respiration and some is used for the growth of Amoeba cell. The undigested part of the food is moved to the surface of Amoeba cell and egested (thrown out) by the rupture of cell membrane.



2. Describe the process of digestion in ruminants.

Ans: The stomach of a ruminant is divided into four chambers. As soon as the ruminant swallows the food, it enters the first chamber called rumen where it gets partially digested (converted to cud). From here, the food enters the second chamber from where it again reaches the mouth for rumination, which is thorough chewing. The food is again swallowed, and now it enters the third and the fourth chamber for digestion. From here, it enters the small intestine for the absorption of nutrients.

3. What are liver and pancreas? Write their functions in detail.

Ans: liver and pancreas are organ that help in digestion of food.

Liver produce bile juice that breaks down fats and stores some vitamins and minerals.

The pancreas has two main functions: an exocrine function that helps in digestion and an endocrine function that regulates blood sugar.

Note:

Liver is the largest gland of the body. It is a reddish-brown gland situated on the right side of the upper part of the

Abdomen.

Functions of liver are as follows:

- (i) To secrete bile juice which helps in the emulsification of fats present in the food.
- (ii) Detoxification- Conversion of toxic substances into non-toxic forms like conversion of ammonia to urea which gets excreted in the urine.
- (iii) Clearing the blood from drugs and other harmful substances.
- (iv) Conversion of excess glucose into glycogen for storage (glycogen can later be converted back to glucose to energy when body is in short of nutrients)

Pancreas is a organ located in the upper abdomen and adjacent to the small intestine. It performs two main kind of functions in the body:

- (i) Exocrine function: It helps in the digestion of food. It produces various enzymes such as amylase, lipase and trypsin which helps to digest carbohydrate, fats and proteins respectively.
- (ii) Endocrine function: It produces hormonal insulin and glucagon which regulate the level of sugar present in the blood

H. HOTS (Higher Order Thinking Skills) Questions:

1. The bacteria present on uncleaned teeth convert the sugar in food into a substance 'X' which causes tooth decay. Name the substance 'X'. Which part of the teeth does it affect?

Ans: Substance X is lactic acid which is formed in the mouth after we eat food containing sugar. it affect enamel.

[Note : Lactic acid lowers the pH in the mouth making it acidic. Our tooth enamel is made up of calcium phosphate, which is the hardest material in our body, but even it starts getting corroded when the pH in the mouth is lower than 5.5(Acidic)]

2. How is ruminant's stomach different from humans?

Ans: The stomach of a ruminant is divided into four chambers they are rumen, reticulum, omasum, and abomasum. Human stomach is a single organ.