

# NUTRITION IN ANIMALS

1. Fill in the blanks:

- (a) The main steps of nutrition in humans are ingestion, digestion, absorption, assimilation and egestion.
- (b) The largest gland in the human body is liver.
- (c) The stomach releases hydrochloric acid and gastric juices which act on food.
- (d) The inner wall of the small intestine has many finger-like outgrowths called villi.
- (e) Amoeba digests its food in the food vacuole.

2. Mark (T) if the statement is true and (F) if it is false:

- (a) Digestion of starch starts in the stomach. (F)
- (b) The tongue helps in mixing food with saliva. (T)
- (c) The gall bladder temporarily stores bile. (T)
- (d) The ruminants bring back swallowed grass into their mouth and chew it for some time. (T)

3. Tick ( ) mark the correct answer in each of the following:

- (a) Fat is completely digested in the - (iii) small intestine
- (b) Water from the undigested food is absorbed mainly in the - (iv) large intestine

4. Match the items of Column I with those given in Column II:

Column I		Column II
Food components		Product(s) of digestion
Carbohydrates		Sugar
Proteins		Amino acids
Fats		Fatty acids and glycerol

5. Villi are tiny, finger-like projections that are located on the inner walls of the small intestine. Their function is to increase the surface area for the absorption of nutrients from food.

6. Bile is produced by the liver and stored in the gallbladder. It helps digest fats in food by breaking them down into smaller droplets.

7. Cellulose is a type of carbohydrate that can be digested by ruminants but not by humans. The cellulose is digested by ruminants due to the action of certain bacteria which are not present in humans.

8. Glucose is a simple sugar that provides instant energy because it doesn't need to be digested. Glucose is easily absorbed into the blood and doesn't need to be broken down into glucose like other carbohydrates.

9. Which part of the digestive canal is involved in:

- (i) absorption of food – small intestine.
- (ii) chewing of food – buccal cavity.
- (iii) killing of bacteria - stomach.
- (iv) complete digestion of food – small intestine.
- (v) formation of faeces – large intestine.

10. Similarity: Both amoeba and human beings are heterotrophs, which means they obtain their nutrients from other organisms.

Dissimilarity:

Amoeba	Human
Amoeba are single-celled organisms that do not have a mouth or digestive system. Instead, they	Human beings, on the other hand, are multicellular organisms that have a mouth,

ingest food by engulfing it with their pseudopodia, which are temporary extensions of their cytoplasm.	stomach, and other organs that make up the digestive system.
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11. Match the items of Column I with suitable items in Column II

Column I		Column II
(a) Salivary gland		(iii) Saliva secretion
(b) Stomach		(iv) acid release
(c) Liver		(i) Bile juice secretion
(d) Rectum		(ii) Storage of undigested food
(e) Small intestine		(v) digestion is completed
(f) Large intestine		(vi) Absorption of water

12. Label Fig. 2.11 of the digestive system.

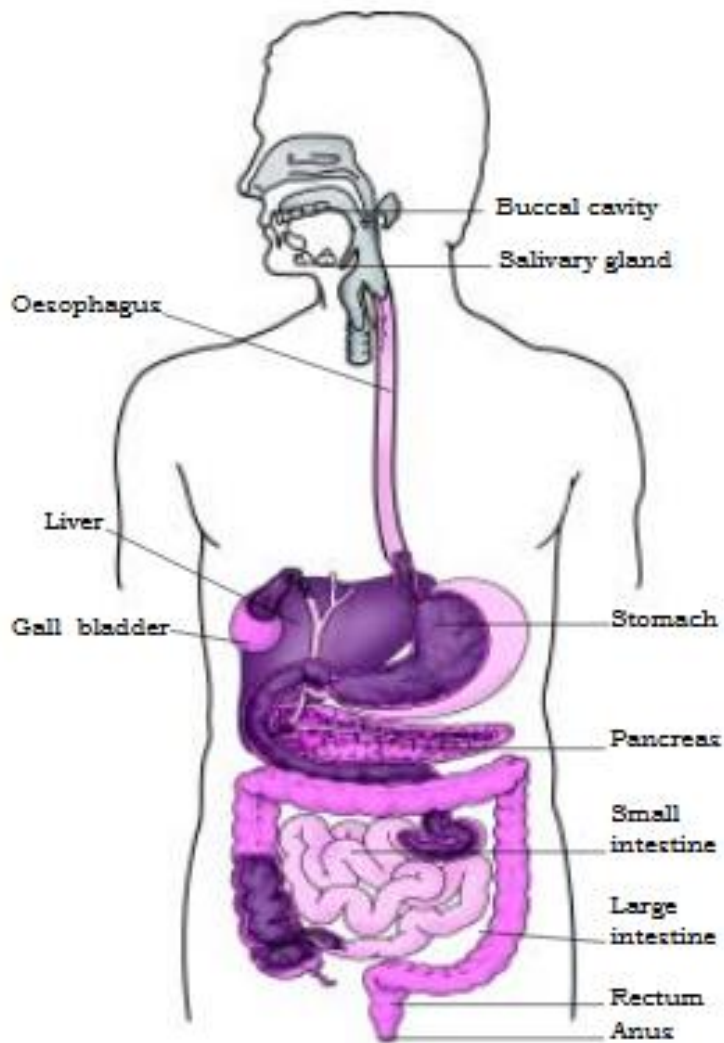


Fig. 2.2 Human digestive system