

# Nutrition in Animals

## Q.1 Fill in the blanks:

- (a) The main steps of digestion in humans are \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_.
- (b) The largest gland in the human body is \_\_\_\_\_.
- (c) The stomach releases hydrochloric acid and \_\_\_\_\_ juice which act on food.
- (d) The inner wall of the small intestine has many finger-like outgrowths called \_\_\_\_\_.
- (e) Amoeba digests its food in the \_\_\_\_\_.

**Sol:**

- (a) The main steps of digestion 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 juice 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.

## Q.2 Mark 'T' if the statement is true and 'F' if it is false.

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

**Sol:**

- (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)

## Q.3 Tick (✓) mark the correct answers in each of the following:

(a) Fat is completely digested in the

- (i) Stomach
- (ii) mouth
- (iii) Small intestine
- (iv) large intestine.

**Sol:** (iii) Small intestine

(b) Water from the undigested food is absorbed mainly in the

- (i) Stomach
- (ii) Food Pipe
- (iii) Small intestine
- (iv) large intestine.

**Sol:** (iv) large intestine

## Q.4 Match the item of Column I with those given in Column II.

### Column I

Food components  
Carbohydrates  
Proteins  
Fats

### Column II.

Product of digestion  
Fatty acids and glycerol  
Sugar  
Amino Acids

**Sol:**

Food components	Product of digestion
Carbohydrates	Sugar
Proteins	Amino Acids
Fats	Fatty acids and glycerol

## Q.5 What are villi? What is their location and function?

**Sol:** It is the finger-like projections present in the inner wall of the small intestine. The function of the villi is to increase the surface area for absorption of digested food.

**Q.6 Where is the bile produced? Which component of the food does it digest?**

**Sol:** Enzymes bile is produced by liver and it is temporarily stored in sac called gall bladder. Bile juice mainly digests fat in small intestine.

**Q.7 Name the carbohydrate that can be digested by ruminants but not the human beings. Give the reason also.**

**Sol:** Cellulose is carbohydrate that can be digested by ruminants but not by human beings. The human being do not produce any enzyme to digest the cellulose.

**Q.8 Why do we get instant energy from glucose?**

**Sol:** we get instant energy from glucose because glucose is the simplest form of carbohydrates which can be broken easily in the cell to give instant energy.

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

- (i) Absorption of food \_\_\_\_\_.
- (ii) Chewing of food \_\_\_\_\_.
- (iii) Killing of Bacteria \_\_\_\_\_.
- (iv) Complete digestion of food \_\_\_\_\_.
- (v) Formation of feces \_\_\_\_\_.

**Sol:** Which part of the digestive canal is involved in:

- (i) Absorption of food Small intestine.
- (ii) Chewing of food Mouth.
- (iii) Killing of Bacteria Stomach.
- (iv) Complete digestion of food Small intestine.
- (v) Formation of feces Large intestine.

**Q.10 Write one similarity and one difference between the nutrition in amoeba and human beings.**

**Sol:** Similarity: Both humans and amoeba digest the food with help of enzymes.

Difference: Amoeba captures the food by pseudopodia and digests it in there while in humans, food is taken by mouth which gets digested at different parts of the digestive tract.

**Q.11 Match the items of Column I with suitable items in Column II.**

**Column I**

- (a) Salivary gland
- (b) Stomach
- (c) Liver
- (d) Rectum
- (e) Small intestine
- (f) Large intestine

**Column II**

- (i) Bile juicescretion
- (ii) Storage of undigested food
- (iii) Salivasecretion
- (iv) Acidrelease
- (v) Digestion is completed
- (vi) Absorption ofwater
- (vii) Release of faeces.

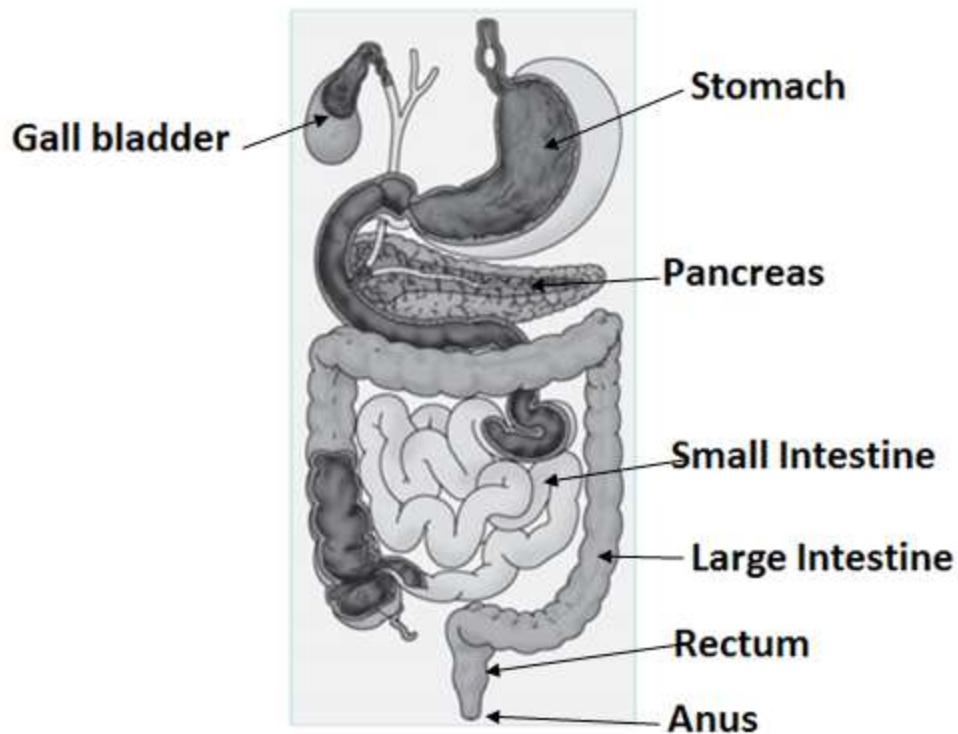
**Sol:**

Column I	Column II
(a) Salivary gland	(iii) Salivasecretion
(b) Stomach	(iv) Acidrelease
(c) Liver	(i) Bile juicescretion
(d) Rectum	(ii) Storage of undigested food
(e) Small intestine	(v) Digestion is completed
(f) Large intestine	(vi) Absorption ofwater

**Q.12 Label figure of the digestive system.**



**Sol:**



**Q.13 Can we survive only on raw, leafy vegetables/grass? Discuss.**

**Sol:** No, we cannot survive only on raw, leafy vegetables/grass, because we are the social animals. We have to live a healthy life. We should have a balanced diet with all the nutrients. And raw vegetables and grasses only provide only fibers which is not enough for the body growth. So, these green leafy vegetables will not help us to survive our life.