

CBSE Class-VII Science
NCERT Solutions
CHAPTER-2
NUTRITION IN ANIMALS

Question 1. Fill in the blanks:

- (a) The main steps of nutrition in humans are _____, _____, _____, _____ and _____.
- (b) The largest gland in the human body is _____.
- (c) The stomach releases hydrochloric acid and _____ juices 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 _____.

Answer: Fill in the blanks:

- (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 **digestive** 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**.

Question 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)

Answer: (a) F (b) T (c) T (d) T

Question 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.

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

- (i) stomach
- (ii) food pipe
- (iii) small intestine
- (iv) large intestine

Answer: (a) (iii) small intestine. (b) (iv) large intestine.

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

Column I	Column II
Food Components	Product of digestion
Carbohydrates	Fatty acids and glycerol
Proteins	Sugar
Fats	Amino Acids

Answer:

Column I	Column II
Food Components	Product of digestion
Carbohydrates	Sugar
Proteins	Amino acids
Fats	Fatty acids and glycerol

Question 5. What are villi? What is their location and function?

Answer: The inner wall of the small intestine have thousands of finger-like outgrowths. These are called villi. Villi are located in the small intestine. The villi increase the surface area for absorption of the digested food. Each villus has a network of thin and small blood

vessels close to its surface. The surface of the villi absorbs the digested food materials.

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

Answer: Bile is produced in liver and stored in gall bladder. Bile juice digests fat.

Question 7. Name the type of carbohydrate that can be digested by ruminants but not by humans. Give the reason also.

Answer: Cellulose is a type of carbohydrate that can be digested by ruminants and not by humans. Ruminants have a large saclike structure called rumen between the oesophagus and the small intestine. The cellulose of the food is digested here by the action of certain bacteria which are not present in humans.

Question 8. Why do we get instant energy from glucose?

Answer: Glucose is the simplest form of carbohydrate which can be broken easily to give energy. So we get instant energy from glucose.

Question 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 faeces -----.

Answer: (i) small intestine

(ii) mouth

(iii) stomach

(iv) small intestine

(v) large intestine

Question 11. Write one similarity and one difference between the nutrition in amoeba and humanbeings.

Answer: Similarity: Both Amoeba and human have holozoic type of nutrition.

Difference: Human beings have complex structure for the ingestion, digestion and egestion of food while Amoeba has simple process in which it engulfs the with the help of pseudopodia and food get trapped in food vacuoles.

Question 12. Match the items of Column I with suitable items in Column II.

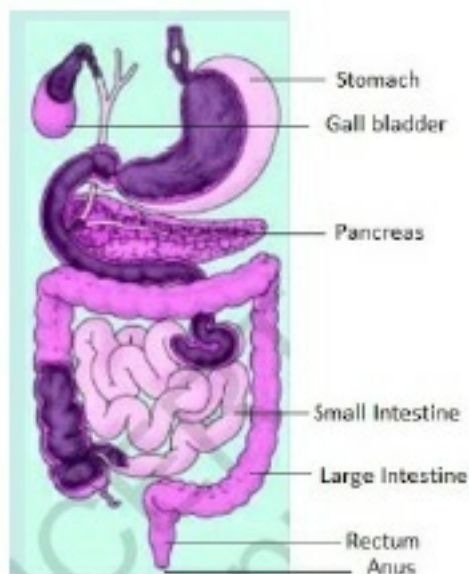
Column I	Column II
(a) Salivary gland	(i) Bile juice secretion
(b) Stomach	(ii) Storage of undigested food
(c) Liver	(iii) Saliva secretion
(d) Rectum	(iv) Acid release
(e) Small intestine	(v) Digestion is completed
(f) Large intestine	(vi) Absorption of water
	(vii) Release of faeces.

Answer:

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
	(vii) Release of faeces.

Question 13. Label fig. 2.2 of the digestive system.

Answer:



Question 14. Can we survive only on raw, leafy vegetables/grass? Discuss.

Answer: No, because to live a healthy life we need a complete balance of all nutrients. Raw green vegetables may have cellulose which cannot be digested by us. So, only green leafy vegetables will not solve the purpose.