

Nutrition in animals (NCERT Solutions)

Class 7

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:

- (a) Ingestion, digestion, absorption, assimilation, egestion
 (b) liver (c) Digestive
 (d) Villi (e) 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.
 (b) The tongue helps in mixing food with saliva.
 (c) The gall bladder temporarily stores bile.
 (d) The ruminants bring back swallowed grass into their mouth and chew it for some time.

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

Question 3: Tick (S) mark the correct answer 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 items of column I with those given in column II:

Column 1	Column 2
Food Components	Product(s) of digestion
Carbohydrates	Fatty acids and glycerol
Proteins	sugar
Fats	Amino acids

Answer:

Column 1	Column 2
Food Components	Product(s) 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 finger like projections in the inner walls of the small intestine is called villi. These are found in small intestine.

Function: The villi increase the surface area for absorption of the digested food

Question 6: Where is the bile produced? Which component of the food does it help to digest?

Answer: Bile is produced in liver. The bile juice stored in sac called the gall bladder. It helps in the digestion of fats.

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

Answer: Cellulose is the carbohydrate that can be digested by ruminants. Ruminants have large sac like structure between the small intestine and large intestine. The cellulose of the food is digested by the action of certain bacteria which are not present in humans.

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

Answer: We get instant energy from glucose because it easily breaks down in the cell with the help of oxygen which provides instant energy to the organism. Glucose does not need to go through the process of digestion; it is directly absorbed into the blood.

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

Answer: Similarity: In both amoeba and human beings digestive juices break down the complex food particles into simpler substances that can be absorbed.

Difference: Amoeba has no mouth and no digestive system whereas human beings has a mouth and a complex digestive system made up of many organs.

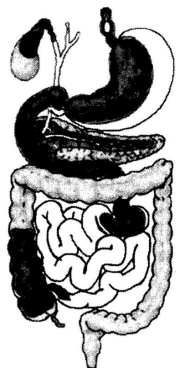
Question 11: Match the items of Column I with suitable items in Column II.

Column 1	Column 2
Salivary glands	Bile juice secretion
Stomach	Storage of undigested food, faeces
Liver	Saliva secretion
Rectum	Acid release
Small intestine	Digestion is completed
Large intestine	Absorption of water

Answer:

Column 1	Column 2
Salivary glands	Saliva secretion
Stomach	Acid release
Liver	Bile juice secretion
Rectum	Storage of undigested food, faeces
Small intestine	Digestion is completed
Large intestine	Absorption of water

Question 12: Label Fig. 2.11 of the digestive



Answer:

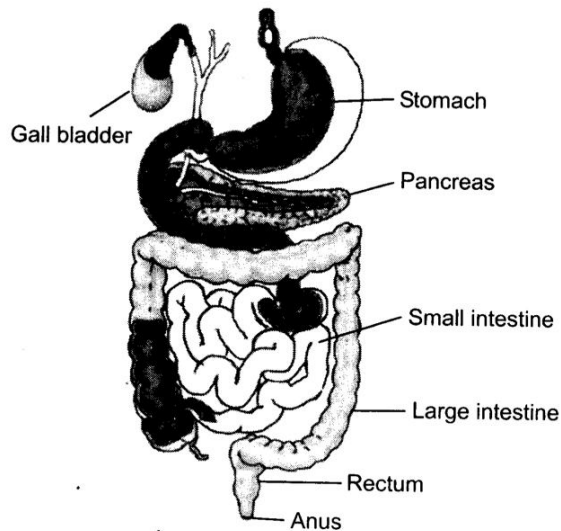


Fig. 2.12 Human digestive system.

Question 13: Can we survive only on raw, leafy vegetables/grass? Discuss.

Answer: We know that the animals, fungi, bacteria, non-green plants and human being do not have the ability to make their own food. They depend upon autotrophs or green plants for their food directly or indirectly. The green plant (leafy vegetables/grass) trap solar energy and make their own food in the form of glucose. So, we can say that leafy vegetables and grass can provide sufficient energy to help us survive.