

Board –CBSE

Class –7<sup>th</sup>

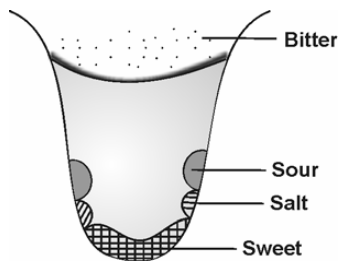
Topic – Nutrition in Animals

1. You have studied in Class VI that food consists of many components. Try to recall and list them below:

Ans: 1. Carbohydrates 2. Fats 3. Proteins 4. Minerals 5. Vitamins 6. Water

2. How does food move in the opposite direction during vomiting?

Ans:



Food is pushed down by the movement of the walls of the food- pipe. This movement takes place throughout the alimentary canal and pushes the food downwards. But when our stomach is completely full or even after eating stale food, the food is not accepted by our stomach, therefore, it is pushed in the opposite direction and vomited out.

3. Why animals such as cows, buffalo, etc. cannot chew food properly at the time they take it in?

Ans: Animals such as cows, buffalo, etc. cannot chew food properly at the time they take it is because these animals eat grass which is rich in cellulose and cannot be digested easily.

4. Why we cannot digest cellulose as the cattle do?

Ans: We cannot digest cellulose like the cattle do because we do not have the bacteria present in our bodies that can digest cellulose.

5. 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 \_\_\_\_\_ juices which act on the food.
- (d) The inner wall of the small intestine has many finger-like outgrowths called \_\_\_\_\_.
- (e) Amoeba digests its food in the \_\_\_\_\_.

Ans: (a) ingestion, digestion, absorption, assimilation, egestion, (b) liver, (c) digestive, (d) villi, (e) food vacuole.

6. Mark 'T' if the statement is true and 'F' it is false:

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

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

(a) Fat is completely digested in the

- (A) Stomach
- (B) Mouth
- (C) Small intestine
- (D) Large intestine

Ans: (C) Small intestine

ZWater from the undigested food is absorbed mainly in the

- (A) Stomach
- (B) Food pipe
- (C) Small intestine
- (D) Large intestine

Ans: (D) Large intestine

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

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

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Carbohydrates	Sugar
Proteins	Amino acids
Fats	Fatty acids and glycerol

Ans:

9. What are villi? What are their location and function?

Ans: Villi are finger-like projections located in the inner wall of the small intestine

Function: 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. The absorbed substances are transported via the blood vessels to different organs of the body.

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

Ans: Bile is produced by the liver. It is stored in the gall bladder. Bile plays an important role in the digestion of fat.

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

Ans: Cellulose is a type of carbohydrate that can be digested by ruminants but not by humans.

The cellulose of the food is digested by the action of certain bacteria, which are not present in humans. So, the human body cannot digest cellulose.

12. Why do we get instant energy from glucose?

Ans: We get instant energy from glucose as glucose easily breakdown in the cell with the help of oxygen and gives out Carbon dioxide, water, and energy.

13. Which part of the digestive canal is involved in

- (a) Absorption of food \_\_\_\_\_
- (b) Chewing of food \_\_\_\_\_
- (c) Killing of bacteria \_\_\_\_\_
- (d) Complete digestion of food \_\_\_\_\_
- (e) Formation of faeces \_\_\_\_\_

Ans: (a) Small intestine (b) Mouth (c) Stomach (d) Small intestine (e) Large intestine

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

Ans: (a) Similarity between the nutrition in amoeba and human beings. The process of digestion of food and release of energy is the same in amoeba and human beings.

(b) Difference between the nutrition in amoeba and human beings.

All the processes of digestion take place in the food vacuole. However, in human beings, different organs perform the function of digestion.

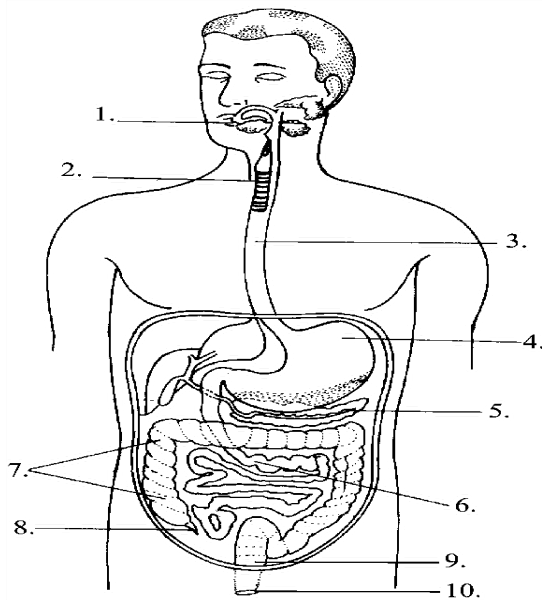
15. Match the items of Column I with suitable items in Column II.

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

Column I	Column II
(a) Salivary gland	Saliva secretion
(b) Stomach	Acid release
(c) Liver	Bile juice secretion
(d) Rectum	Storage of undigested food
(e) Small intestine	Digestion is completed
(f) Large intestine	Absorption of water

Ans:

16. Label the figure of the digestive system.



Ans: (1) Mouth, (2) Trachea, (3) Oesophagus, (4) Stomach, (5) Pancreas, (6) Small Intestine, (7) Large Intestine, (8) Vermiform Appendix, (9) Rectum, (10) Anus.

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

Ans: Our body has different organs to digest the different components of food. For example, the saliva present in the buccal cavity breaks down the starch into sugars, the digestive juices present in the stomach help to break down the proteins, the bile secreted by the liver plays an important role in the digestion of fats, etc. Our body does not have the enzyme or digestive juice to digest raw, leafy vegetables/grass. Thus, we cannot survive only on a raw, leafy vegetables.

18. Which organ in the cow's digestive system differentiates it from that of human beings?

Ans: Stomach: The stomach of ruminants such as cows consists of 4 compartments: the rumen, reticulum, omasum, and abomasum.