



CLASS NOTES-ANSWERS

1. Fill in the blanks:

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

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

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

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

- Fat is completely digested in the
 - Stomach
 - Mouth
 - Small Intestine
 - Large Intestine
- Water from the undigested food is absorbed mainly in the
 - Stomach
 - Food pipe
 - Small Intestine
 - Large Intestine



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

Column I	Column II
<u>Food components</u>	<u>Products of digestion</u>
Carbohydrates	Fatty acids and glycerol
Proteins	Sugar
Fats	Amino acids

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. The villi increase the surface area for absorption of the digested food.

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 is stored in a sac called the gall bladder. It helps in the digestion of fats.

7. Name 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 a 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.



8. Why do we get instant energy from glucose?

Answer: Because it easily breaks down in the cell with the help of oxygen which provides instant energy to the organism. Glucose does not need digestion; it is directly absorbed into the blood.

9. 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 faeces: Large Intestine.

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

Answer: Similarity: The digestive juices in amoeba are secreted into food vacuole and in human beings the digestive juices are secreted in stomach and small intestine. Then the juices convert complex food into simpler soluble and absorbable substances.

Difference: Amoeba captures the food with the help of pseudopodia and engulf it. In human beings food is taken by the mouth.

11. Match the items given in column I with those 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

12. Label fig. 2.11 of the digestive system.

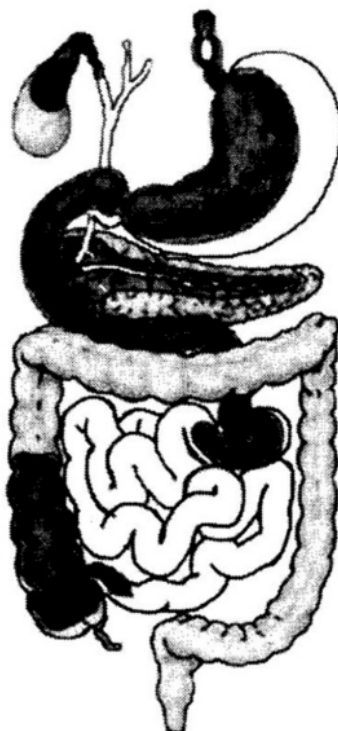
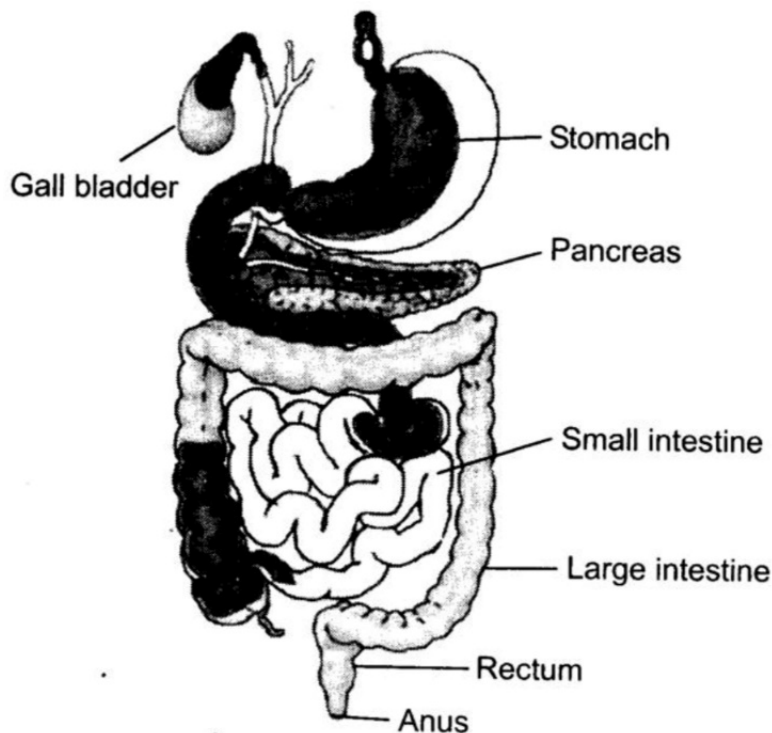


Fig. 2.11 A part of human digestive system

Answer:



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

Answer: No. Raw leafy vegetables and grass are rich in cellulose, a type of carbohydrate. Many animals, including humans, cannot digest cellulose, because they do not have enzymes and a certain type of bacteria which can digest cellulose. We cannot survive by taking vegetables in raw form. That's why we boil or cook vegetables which breaks down cellulose into simple carbohydrates. We can only survive by taking in vegetables in boiled or cooked form.