

Very Short Answer Questions

Q.1. Name the parts of the alimentary canal where.

[NCERT Exemplar]

Q. water gets absorbed from undigested food.

Ans. Large intestine

Q. digested food gets absorbed.

Ans. Small intestine

Q. taste of the food is perceived.

Ans. Tongue

Q. bile juice is produced.

Ans. Liver

Q.2. Choose the odd one out from each group and give reasons.

[NCERT Exemplar]

Q. Liver, salivary gland, starch, gall bladder

Ans. Starch; others are glands.

Q. Stomach, liver, pancreas, salivary gland

Ans. Stomach; others are digestive glands.

Q. Tongue, absorption, taste, swallow

Ans. Absorption; others are parts of the mouth.

Q. Oesophagus, small intestine, large intestine, rectum

Ans. Small intestine; no juices are released by other parts/no digestion in other parts.

Q.3. What is assimilation?

Ans. The process of using absorbed food for growth and producing energy is called assimilation.

Q.4. What is rumination?

Ans. The partially digested food in ruminants goes to rumen and then to second chamber from where it is returned to the mouth for thorough chewing. This is called rumination.

Q.5. What is mastication?

Ans. The process of chewing the food is called mastication.

Q.6. What is peristalsis?

Ans. The wave-like action by which food is gently pushed from mouth to the stomach via oesophagus is called peristalsis.

Q.7. What is the function of digestive juices?

Ans. The digestive juices convert complex substances of food into simpler ones.

Q.8. Where is liver found in Human digestive system?

Ans. The liver is a reddish-brown gland present in the upper part of the abdomen on the right side.

Q.9. What is the approximate length of small intestine?

Ans. Small intestine is highly wiled and is about 7.5 meters long.

Short Answer Questions

Q.1. Boojho took some grains of boiled rice in test tube 'A' and Paheli took boiled and chewed rice in test tube 'B'. Both of them poured 1–2 drops of iodine solution into the test tube and observed the colour change. What colour change would they have observed? Give reasons for your answer.

Ans. The food items would be fat because bile juice of the gall bladder helps in the digestion of fat. Removal of gall bladder leads to difficulty in digestion of fatty substances.

Q.2. Ruminants such as cows and buffaloes swallow their food hurriedly and then sit restfully and chew their food. Can you reason why?

Ans. This is done for complete digestion of the food. When the food is swallowed by ruminants, it is only partially digested. It is then again chewed for its completed digestion.

Q.3. What is ORS? When is it given?

Ans. ORS stands for oral rehydration solution. It is given when body loses lot of water such as in diarrhoea.

Q.4. Name the organs involved in the digestion of food in humans.

Ans. The organs involved in digestion are mouth, oesophagus, stomach, liver, small intestine, gall bladder and large intestine.

Q.5. In which part of the human digestive system are bacteria present in the food killed? Explain how.

Ans. Bacteria in food are killed in stomach. The inner lining of stomach secretes hydrochloric acid and digestive juices which kill the bacteria in food.

Q.6. Why we cannot digest cellulose like the cattle do?

Ans. Cattle is grass eating animal, that contains cellulose and human being cannot have certain enzymes or bacteria to digest cellulose.

Q.7. What is the difference between human digestive system and alimentary canal?

Ans. Digestive system of human beings consists of an alimentary canal and associated glands while alimentary canal has mouth, oesophagus, stomach, small intestine, large intestine and Anus.

Q.8. What is the various steps involved in Digestion process?

Ans. Digestion is a complex process involving

- ingestion

- digestion
- absorption
- assimilation
- egestion.

Q.9. 'A' got her gall bladder removed surgically as she was diagnosed with stones in her gall bladder. After the surgery, she faced problems in digestion of certain food items when consumed in bulk. Can you tell which kind of food items would they be and why?

[NCERT Exemplar]

Ans. The food items would be fat because bile juice of the gall bladder helps in the digestion of fat. Removal of gall bladder leads to difficulty in digestion of fatty substances.

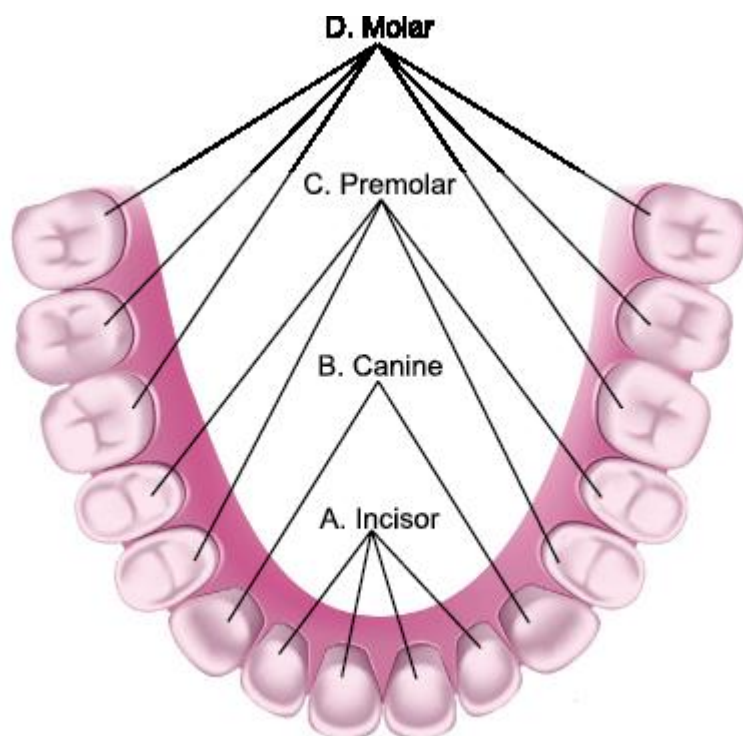
Long Answer Questions

Q.1. Draw a diagram of the buccal cavity and label the given types of teeth.

- (a) The cutting and biting teeth as 'A'
- (b) The piercing and tearing teeth as 'B'
- (c) The grinding and chewing teeth as 'C'
- (d) The grinding teeth present only in adults as 'D'

[NCERT Exemplar]

Ans.



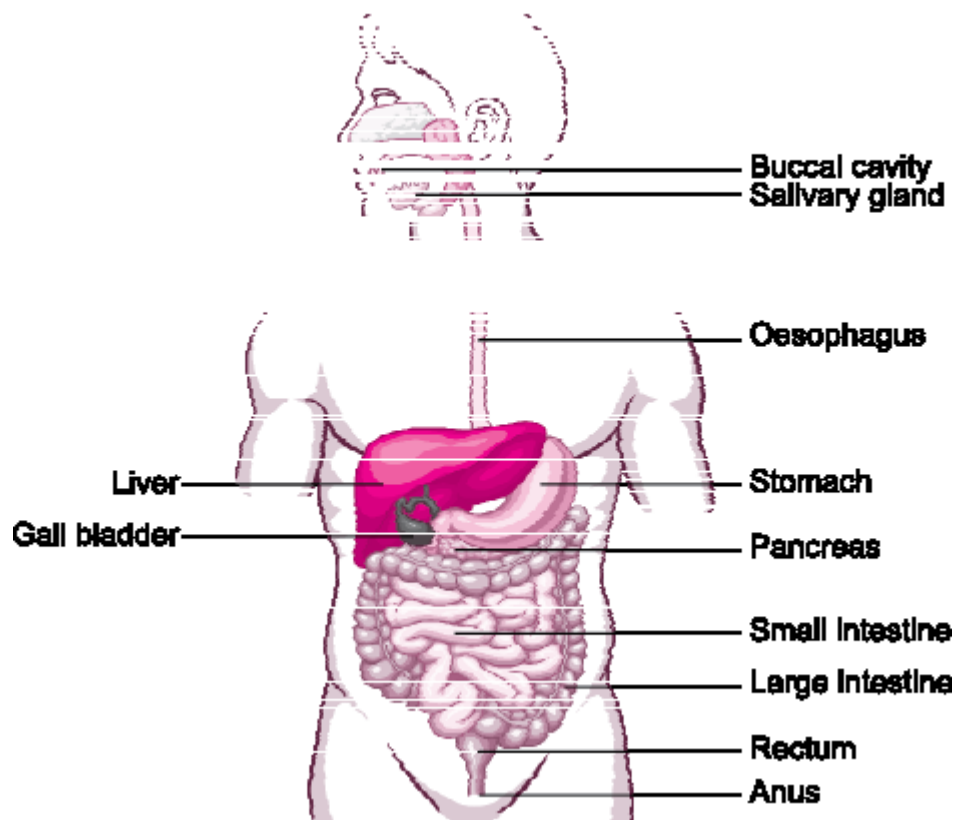
Q.2. (a) Draw a labelled diagram of the digestive system.

(b) Identify the following parts in the human body.

- The largest gland in our body.
- The organ where protein digestion starts.
- The organ that releases digestive juice into the small intestine.
- The organ where bile juice gets stored.

[NCERT Exemplar]

Ans. (a)



(b)

(i) Liver

(ii) Stomach

(iii) Pancreas

(iv) Gall bladder

Q.3. Distinguish between the following.

Q. Milk teeth and Permanent teeth.

Ans.

S.No	Milk teeth	Permanent teeth
(i)	These are first set of teeth that grow during infancy	Milk teeth are replaced by a second set of teeth called permanent teeth.
(ii)	They fall off at the age of 6–8 years.	They are never replaced.

Q. Ingestion and Egestion

Ans.

S.No	Ingestion	Egestion
(i)	The process of taking in of food inside the body	The process of throwing out of undigested food materials from the body.
(ii)	It occurs through mouth.	It occurs through rectum.

Q.4. Write the function of the following:

Q. Tongue

Ans. Tongue: It moves the food around the mouth and mixes with saliva into a ball. It also helps in tasting the food.

Q. Stomach

Ans. Stomach: It secretes digestive secretions containing enzymes that digests the food.

Q. Small intestine

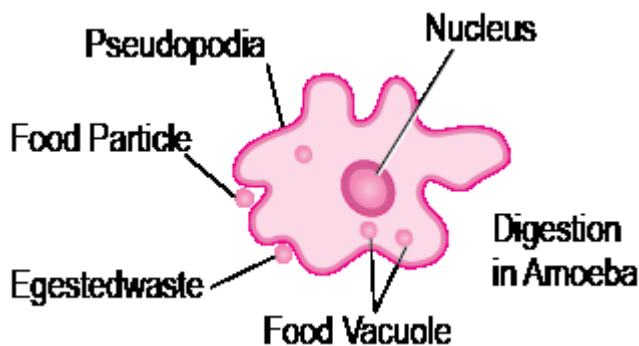
Ans. Small intestine: Digestion of food completes in the small intestine and the villi on its wall help in complete absorption of digested food.

Q. Large intestine

Ans. Large intestine: It absorbs water and salts from the undigested food material.

Q.5. Explain the digestion process in Amoeba with the help of diagram.

Ans. Amoeba is unicellular organisms, it captures food with the help of finger like projections called pseudopodia helps amoeba to engulf the food. Food now become trapped in food vacuole and with the help of digestive juices complex food converts into simple substances. Gradually the digested food is absorbed and undigested food is expelled outside by the vacuole.



Q.6. Give a brief account of process of digestion of different nutrients in human being.

Ans. Digestion in mouth

Starch $\xrightarrow{\text{Saliva}}$ Sugar

Digestion in stomach: Stomach secretes mucous, hydrochloric acid and digestive juices.

- Mucous protects the lining of the stomach.
- The acid kills the bacteria and provide acidic medium.
- Digestive juices breakdown the proteins into simpler substances.

Digestion in small intestine: Liver secretes bile juice, that helps in digestion of fats. Pancreas secretes pancreatic juice which acts on carbohydrates and proteins and converts into simpler form.

Intestinal juice completes the digestion of all components of food. Such as:

Carbohydrates \rightarrow Glucose Fats \rightarrow Fatty acids and glycerol Proteins \rightarrow Amino acids

HOTS (Higher Order Thinking Skills)

Q.1. How does food move in opposite direction during vomiting?

Ans. Food is pushed into the stomach by the peristaltic movement of the walls of oesophagus (food pipe). Sometimes, the food is not accepted by stomach, then the movement of walls of food pipe moves the food in opposite direction and food comes out as vomiting.

Q.2. Why does a doctor put a glucose drip to a patient who has just been operated?

Ans. This is because the patient cannot digest the food and glucose being the simplest form, get easily absorbed and provide necessary energy to patient.