

CBSE TEST PAPER-01
CLASS - XI BIOLOGY
(Digestion and Absorption)

General Instruction:

- All questions are compulsory.
 - Question No. 1 to 3 carry one marks each. Question No. 4 to 6 carry two marks each. Question No. 7 and 8 carry three marks each. Question No. 9 carry five marks.
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1. Name the secretions of Goblet cell & parietal cells.
2. Name the three parts of small intestine of man.
3. Which is the largest gland in our body?
4. What is the role of micelles in the fat absorption?
5. Give two functions of trypsin?
6. What are the specific functions of food?
7. How is DNA content in our food digested in the body?
8. How would it affect the digestion of proteins if there is blockade in the pancreatic duct?
9. Draw a labeled diagram of human alimentary canal & Describe its different parts.

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[ANSWERS]

Ans 01. Goblet cells secrete mucus.

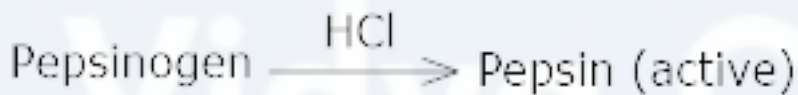
Parietal cells secrete hydrochloric acid (HCl) and intrinsic factor.

Ans 02. Duodenum, Jejunum and ileum.

Ans 03. Liver.

Ans 04. During digestion, the fat in the intestine is converted to monoglycerides diglycerides and fatty acids which are insoluble in water. They cannot be directly absorbed from the intestinal contents. They are first incorporated into small, spherical and water soluble droplets called micelles by bile salts. It is from these micelles that fatty acids, glycosides, sterols and fat soluble vitamins are absorbed into the intestinal cells.

Ans 05. 1) Trypsin converts chymotrypsinogen into chymotrypsin.



2) Trypsin acts on proteoses and peptones and convert them into peptides.

Trypsin + Peptones + Proteoses → Peptides.

Ans 06. Specific functions of food are –

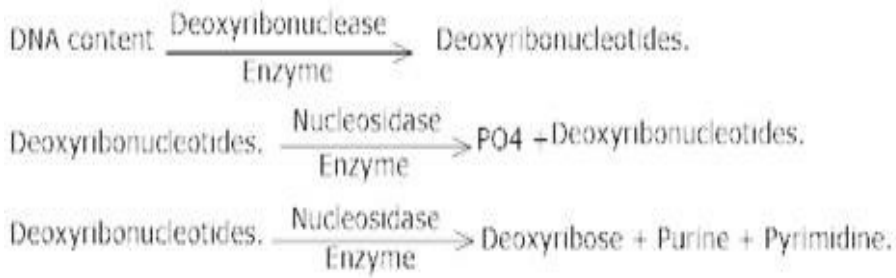
(i) Food on oxidation inside the body supplies energy to perform various functions.

(ii) It serves to supply the material for growth and development of the body.

(iii) It also serves as a reserve material mainly as fat and glycogen. These can be utilized at the time of emergency.

(iv) It protects the body from diseases.

Ans 07. DNA content is digested in the intestinal part of our alimentary canal by the enzymes present in pancreatic juice & succus entericus.



Ans 08. Pancreatic duct in addition to pancreatic juice brings bile juice also. The pancreatic juice contains many enzymes which are as follows-

a) Trypsin – It acts on protein, proteases and peptones and converts them into amino acids.

b) Amylopsin – It acts on starch and converts it into soluble sugars.

c) steapsin or lipase – It emulsify the fats and convert them into fatty acids and glycerol.

Hence, if there is a blockade in the pancreatic duct then there will be no digestion of proteins, fats and starch because the digestive enzymes will be absent.

Ans 09. The alimentary canal of man is a long coiled tube of varying diameter. It measures from 8 to 10 meters in length. It is divisible into the following parts –

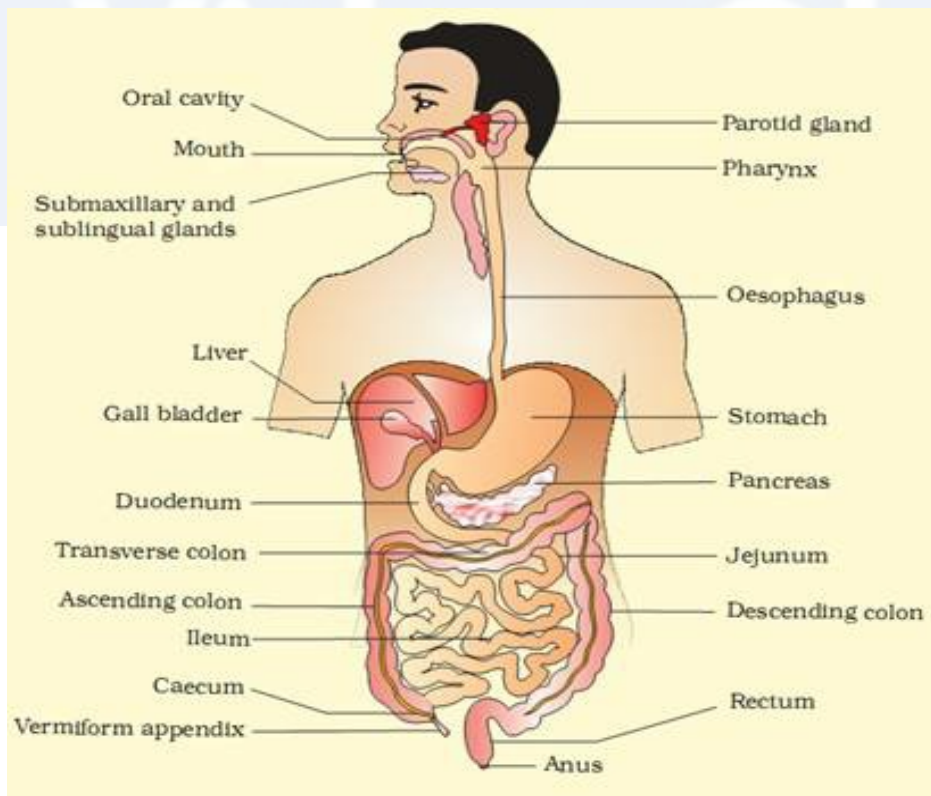


Figure 16.1 The human digestive system

a) Oral cavity – It is the initial enlarged part of the alimentary canal. It opens by mouth and

consists of lips, cheeks, gums, teeth and the palate and its muscles. The salivary glands open into the oral cavity.

b) Pharynx – The oral cavity passes into pharynx.

c) Oesophagus – It is a muscular tube about 10 inches long through which food passes into the stomach where it joins the cardiac stomach.

d) The stomach is a sac – like structure and situated below the diaphragm. The wall of the stomach contains many small gastric pits into which ducts of gastric glands open.

e) Small intestine – It is a long tube – like structure measuring about 5-7 meters. It is divisible into 3 parts – duodenum, the jejunum and the ileum. The duodenum is the first part and u – shaped. In this open the opening of pancreatic duct and bile duct.

f) Large intestine – The large intestine is about 1.5m long. It consists of caecum with vermiform appendix, colon and rectum. The rectum opens to the exterior by anus.

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