

## Class Work

### Answer sheet

#### Topic- Nutrition in human beings- digestive system

#### Instruction:

- The answer hints are provided here. Elaborate according to marks.

Q. 1 to 3 are MCQ types

1. Our throat divides into two separate tubes: the windpipe and the gullet. What prevents food from entering the windpipe?

- a. uvula
- b. tongue
- c. trachea
- d. **epiglottis**

2. For absorption Vitamin B<sub>12</sub> must combine with an intrinsic factor which comes from

- a. **stomach**
- b. small intestine
- c. liver
- d. large intestine

3. On removal of pancreas the compound which remains undigested is

- a. lactose
- b. carbohydrate
- c. fat
- d. **protein**

Q. 4 to 6 are Assertion reason based questions

1. Both A and R are true and R is the correct explanation of A.
2. Both A and R are true but R is not the correct explanation of A.
3. A is true but R is false.

4. A is false but R is true.
5. Both A and R are false.

4. A: Absorption of simple sugar, alcohol and medicines takes place in stomach.

R: Most of the water is absorbed in large intestine.

Ans Hint: 2

5. A: Glucose is absorbed by either simple diffusion or active transport.

R: Amino acids are absorbed by either simple diffusion, facilitated diffusion or active transport.

Ans Hint: 2

6. A: Small amount of lipases are secreted by gastric glands.

R: Lipase is also found in pancreatic and intestinal juices.

Ans Hint: 2

Q. 7 to 15 are short answer type questions. (2-3 marks)

7. Enumerate the function of large intestine.

Ans Hint: Absorption of water, minerals and some medicines.

8. Name two nutrients which are absorbed rapidly and almost totally from the small intestine.

Ans Hint: Amino acids, monosaccharides

9. What is saliva? What is its source?

Ans Hint: Alkaline secretion from salivary glands to digest carbohydrates

10. Name the bile pigments.

Ans Hint: Bilirubin, biliverdin

11. What is emulsification?

Ans Hint: Breaking of fats in smaller globular structures-micelles with the help of bile juice

12. Where is erepsin present?'

Ans Hint: Small intestine

13. How do protein digestion performed in stomach explain?

Ans Hint: Ph acidic, pepsinogen to pepsin formation, protein to peptone formation

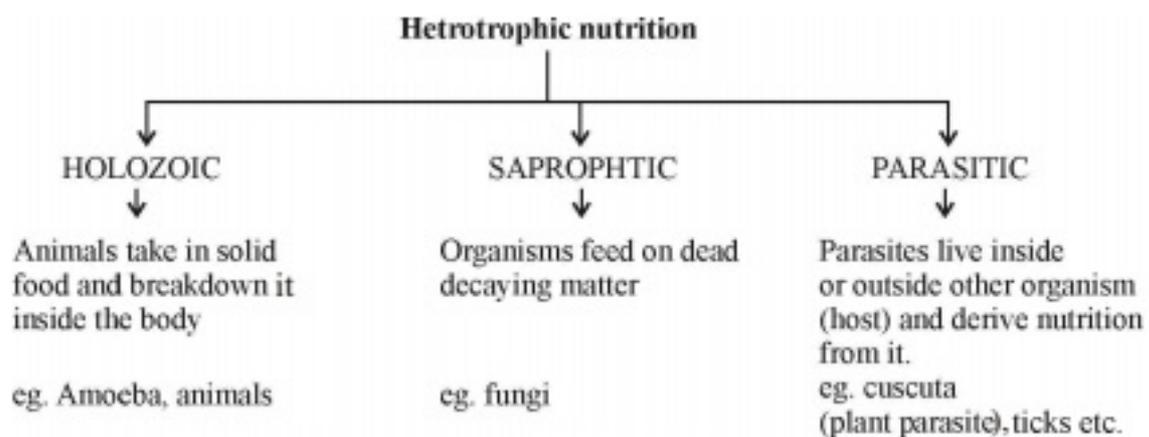
14. What is peristalsis?

Ans Hint: Muscular movement of oesophagus and other gastric parts

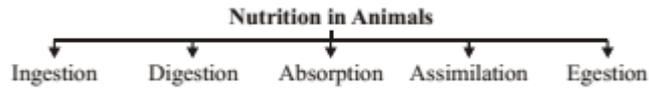
15. Describe the process of fat absorption.

Ans Hint: Role of bile, micelle formation, Fat breaks to fatty acid and glycerol.

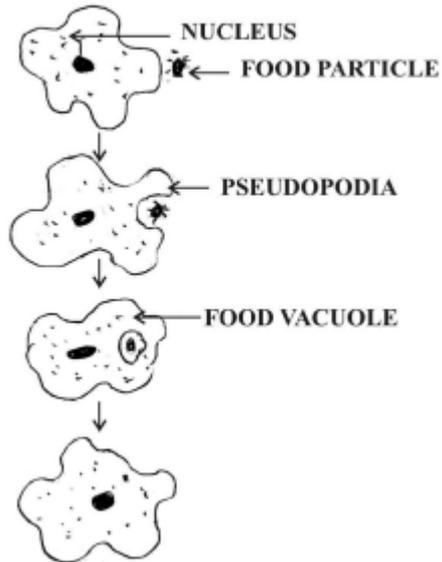
## Notes



## Nutrition in Animals



## Nutrition in Amoeba

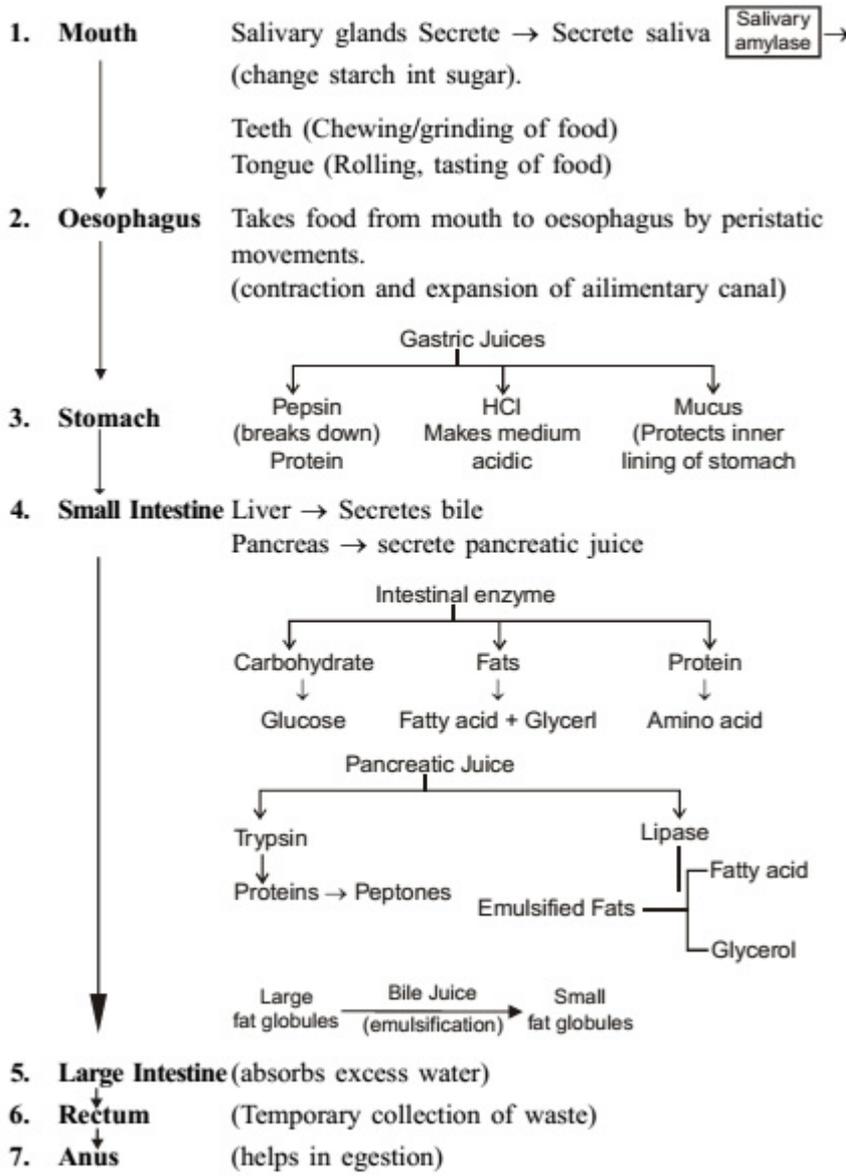


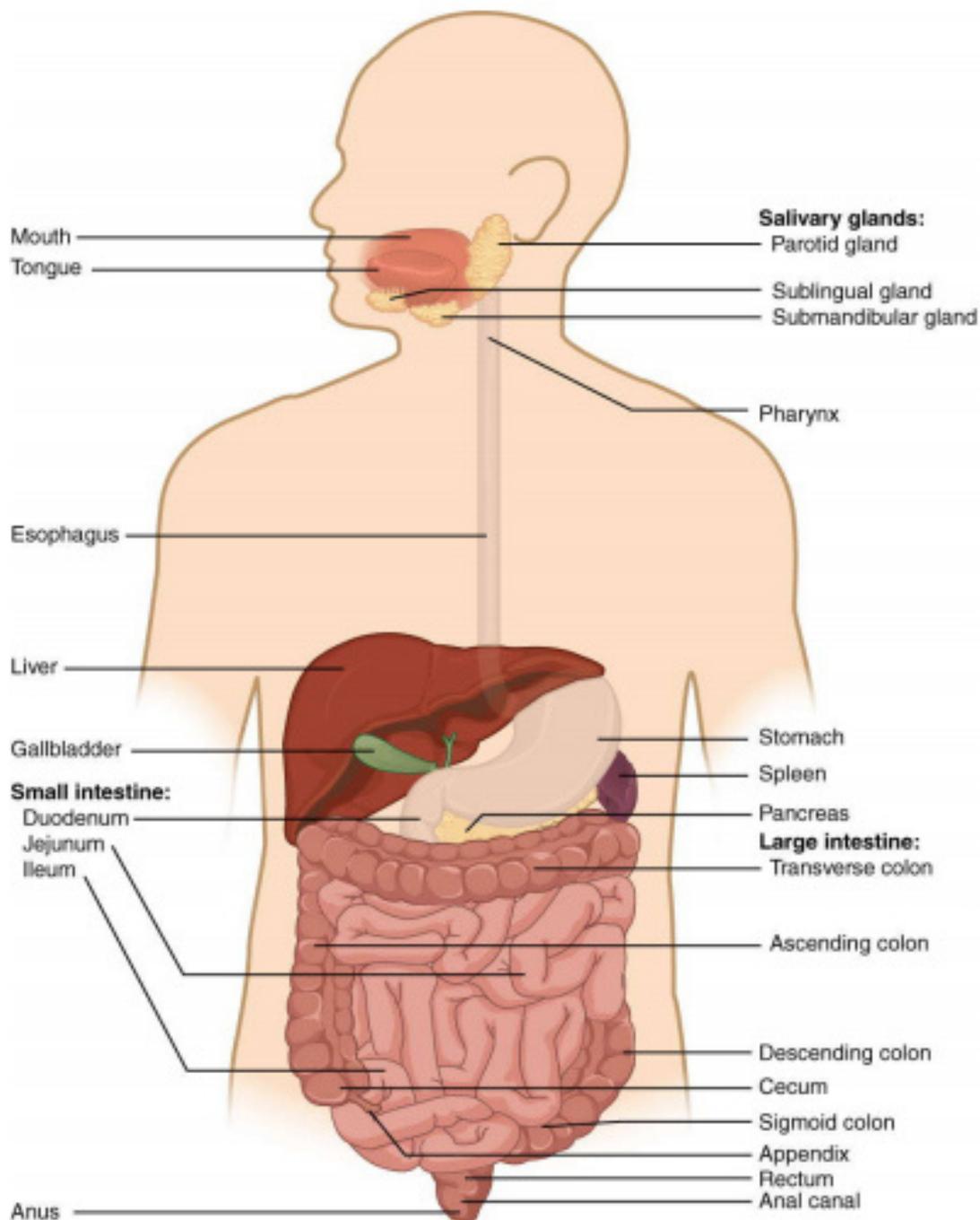
Amoeba has a holozoic nutrition. Thus, solid food particles are ingested which react with enzymes and are digested. It is an omnivore.

- (i) Amoeba move with the help of pseudopodia (extension of cell membrane)
- (ii) Food vacuole is formed
- (iii) Undigested food is thrown out.

Nutrition in Human Beings : The human digestive system comprises of alimentary canal and associated digestive glands.

## HUMAN DIGESTIVE SYSTEM





**HUMAN DIGESTIVE SYSTEM:** As shown in the flow chart, digestion begins from the mouth. In the mouth it is broken down by salivary amylase. The food moves to the stomach through the oesophagus which performs peristaltic movement. Enzymes and various digestion juices from liver, gall bladder and pancreas act on the chunks from the stomach in the small intestine. In the large intestine, the remaining nutrients are absorbed and the leftover is removed from the body through the rectum and anus.