

## Nutrition - I

Answer the following:

- 1) Define the terms -
  - a) Food - A substance consisting essentially of protein, carbohydrate, fat and other nutrients in the body of an organism to sustain growth and vital processes and to furnish energy is called food.
  - b) Nutrition - Nutrition is a combination of processes by which the living organisms receives and utilizes the materials necessary for the maintenance of its function and for the growth and renewal of its components.
  - c) Holozoic Nutrition - Holozoic Nutrition can be defined as the method of nutrition that involves the ingestion of some complex organic substances that may be in solid or liquid state.
  - d) Parasitic nutrition - The process by which the plants obtain their necessary nutrition from any other living plants or animals of different species is called parasitic nutrition.
  - e) Symbiotic nutrition - When two different species of



animals live in close association with each other for their mutual benefit in nutrition and shelter. the type of nutrition is called symbiotic nutrition.

f) Dental Formula — A method of expressing or describing the number of each type of tooth in one side of the upper jaw over the number of teeth in one side of the lower jaw according to their arrangements in human or mammals is called dental formula.

2) Name the steps of holozoic nutrition and organs or tissues associated with it.

Ans — The different steps of holozoic nutrition include:

i) Ingestion

ii) Digestion

iii) Absorption

iv) Assimilation

v) Egestion

The organs associated with the steps are:

Ingestion — Teeth, Tongue, Lips and Hand

Digestion — Mouth, Small Intestine, pancreas, liver, digestive and intestinal glands.



c) Absorption — Lymph vessels, Blood vessels

d) Assimilation — cells, tissues, Blood, extracellular fluid of body

e) Egestion — Colon, Rectum, Anus

3) What type of nutrition is found in leech. Define it.  
Ans- Parasitic nutrition is found in leech. Leech are the parasites living on outer surface of host.

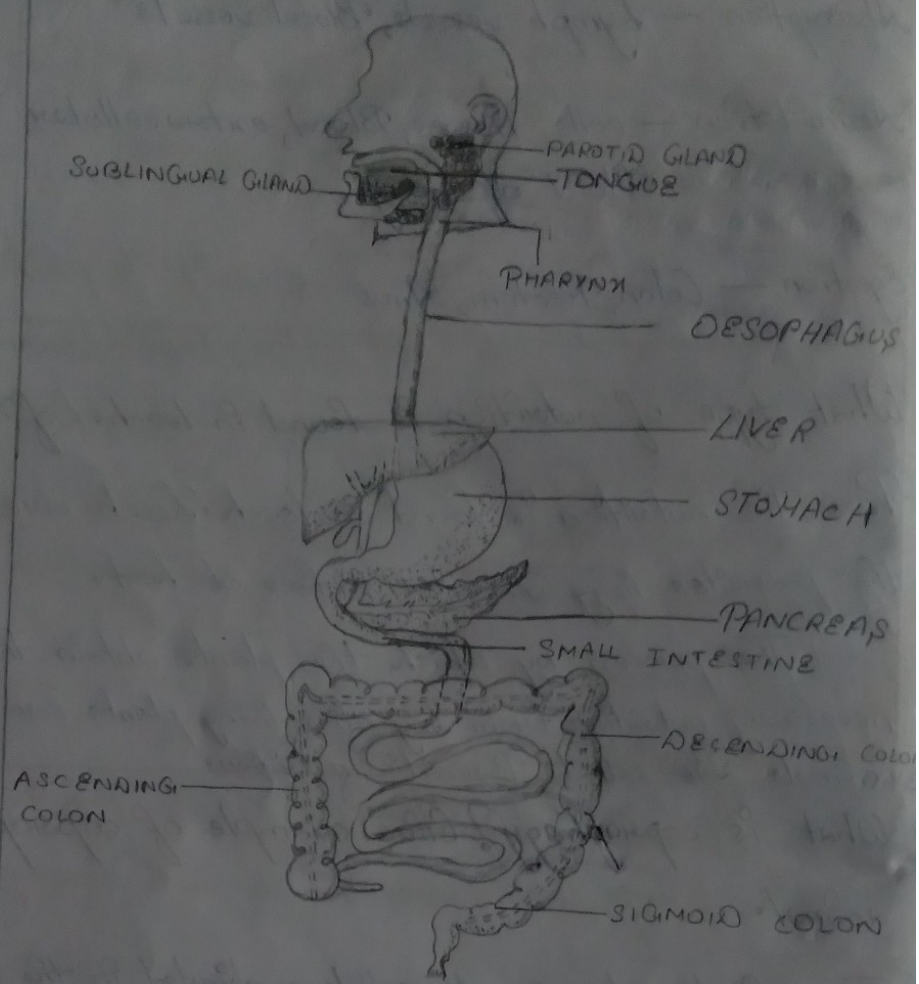
The process by which the plants obtain their necessary nutrition from any other living plants or animals <sup>is</sup> called Parasitic nutrition.

4) What is coprophagy? Give example of coprophagy animal.

Ans- The animals who excrete cellulose digested in the large intestine and remains unabsorbed and are reingested for absorption is called coprophagy. Ex- Pig, Rabbit

5) Draw the human alimentary system and label the following parts:

- |                     |                     |                      |
|---------------------|---------------------|----------------------|
| a) Sublingual Gland | (c) Liver           | (j) Descending colon |
| b) Parotid Gland    | (f) Stomach         | (i) Ascending colon  |
| c) Pharynx          | (g) Pancreas        | (k) Sigmoid colon    |
| d) Oesophagus       | (h) Small Intestine |                      |



HUMAN ALIMENTARY SYSTEM

6) Name the part of alimentary canal which is common to the both digestive and respiratory system. State its function.

Ans- Pharynx, a part of alimentary canal is common in both digestive and respiratory system.

It serves both the digestive and respiratory systems by performing the following functions:



i) Helps in the swallowing food with its muscular wall and serves a pathway for the food to reach oesophagus from mouth and serves digestive system.

ii) Allows air from mouth and nose to the larynx in breathing serving the respiratory system.

7) What is the location of epiglottis? State its function.

Ans- Epiglottis, a leaf-shaped flap of cartilage is located behind the tongue, at the top of larynx.

The main function of the epiglottis is to avoid the food from entering accidentally into the larynx by closing it.

8) Write the location of

i) Uvula - Back of throat

ii) Laryngo pharynx - pharynx

iii) Lingual frenulum - Below the tongue

iv) Vermiform appendix - right lower quadrant of abdomen

v) Jejunum - Small intestine

vi) Cystic duct - gall bladder

vii) Duct of pancreas - inner wall of descending duodenum

viii) Sublingual gland - Below the tongue

ix) Parotid gland - Corner of mandible and ear lobe on both each side.