

LIFE PROCESSES:- The activities by which living organisms take in food, derive energy remove waste material from their body and respond to changes in the environment are called life processes.

BASIC LIFE PROCESS:- 1. NUTRITION 2. RESPIRATION 3. TRANSPORTATION OF MATERIALS AND FLUIDS 4. EXCRETION.

1. NUTRITION

Nutrition:- The process of intake of food, its digestion, absorption, and distribution to different parts of the body for utilization is, known as nutrition.

Nutrients:- Food substances such as proteins carbohydrates, fats, minerals etc which support the group of organisms and provide raw materials for bio synthesis of body constituents are called nutrients.

Types of Nutrients

1. Energy yielding – carbohydrates and fats
2. Body building- Proteins
3. Protective Food- Vitamins and minerals

Importance of food

Organisms need food for :-

1. Growth and to get energy for carrying out various life activities.
2. Repair of damaged cells and tissues.
3. Producing enzymes and hormones.

MODE OF NUTRITION

Mode of nutrition means methods of procuring food or obtaining food by an organism. There are mainly two modes of nutrition:-

1. Autotrophic Nutrition
2. Heterotrophic Nutrition

Autotrophic Nutrition:- A type of nutrition in which organisms synthesize organic material (Food) from simple inorganic sources (CO_2 and H_2O) with the help of sunlight is called autotrophic nutrition for example:- All green plants and some bacteria.

Types of Autotrophic Nutrition

1. Photosynthesis:- Food manufactured from inorganic raw materials, ex- most plants.
2. Chemosynthesis:- Energy for food synthesis comes from special chemical processes, ex- Certain Bacteria.

Heterotrophic Nutrition:- A type of nutrition in which an organism cannot make its own food from simple inorganic materials and energy is obtained from the intake and digestion of organic substances derived from plants or animals.

Types of Heterotrophic Nutrition

1. Saprophytic Nutrition:- Those organisms which get their food supply from dead or decaying organic matter are known as Saprophytic Nutrition. example- Bacteria , Fungi etc.
2. Parasitic Nutrition -: Parasitic is an organisms which lives outside or inside the body of another organism(called the Host) and derives the nourishment from the host. Example- Leech, Mosquito -

The mode of nutrition by which parasites get their food from the body of other living organisms(Host) without killing them is known as Parasitic Nutrition.

3. Holozic Nutrition:- The nutrition in which an organisms eating organisms usually as a whole. Example – Most animals, Human, Amoeba etc.

Home Assignment

1. What are Life Processes?
2. Name various basic life process.
3. Define Nutrition.
4. What are Nutrients ? Give examples.
5. Name various group of nutrients with example.
6. Why organisms need food?
7. Name two modes of nutrition.
8. What are Autotrophic Nutrition? Give an example.
9. Define Heterotrophic Nutrition with example.
10. Name various type of Heterotrophic Nutrition and Define them with examples.