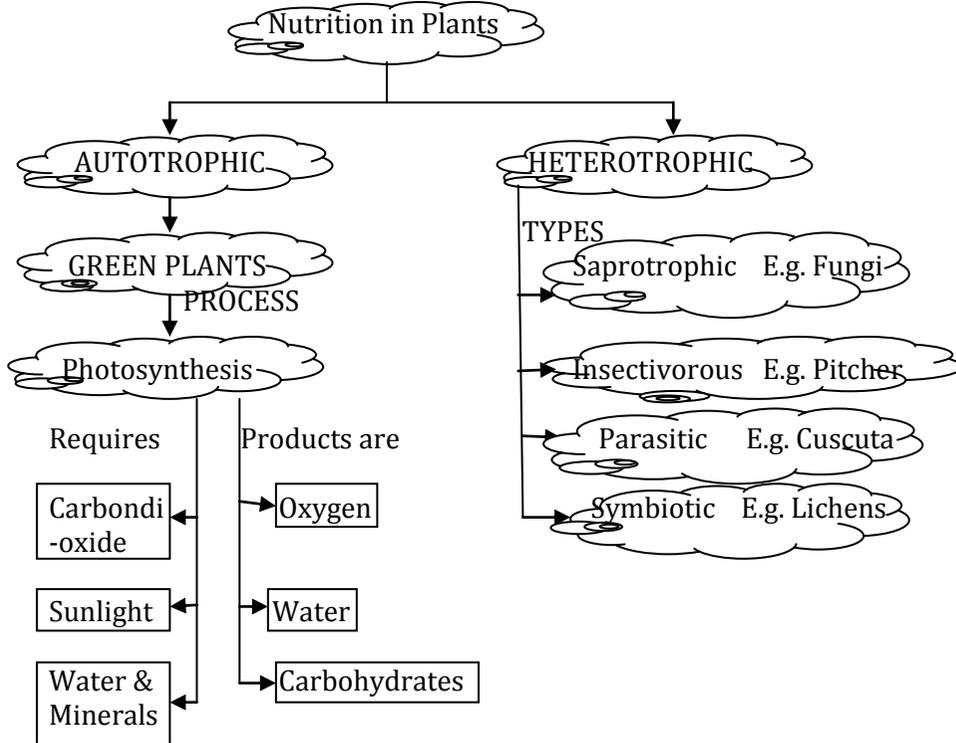


EVERWIN VIDHYASHRAM

STD: VII

SCIENCE Nutrition in Plants

I. Introduction:



II. Definitions:

1. Nutrition: The mode of taking food by an organism and its utilisation by the body is called Nutrition.
2. Autotrophs: Organisms which make food by themselves from simple substances are called Autotrophs. E.g. Green plants
3. Heterotrophs: Organisms that take in readymade food prepared by the plants are called Heterotrophs. E.g. All animals & Non-green plants
4. Photosynthesis: The process by which green plants prepare their food with the help of Carbon-di-oxide, water and Sun light are called Photosynthesis.
5. Parasites: Organisms which live in or on other organisms to get food and shelter from them are called Parasites.
6. Host: The living organism from which a parasite derives its food is called Host.
7. Saprophytes: Organism which live on dead plants and animals and

derive their food from them are called Saprophytes.

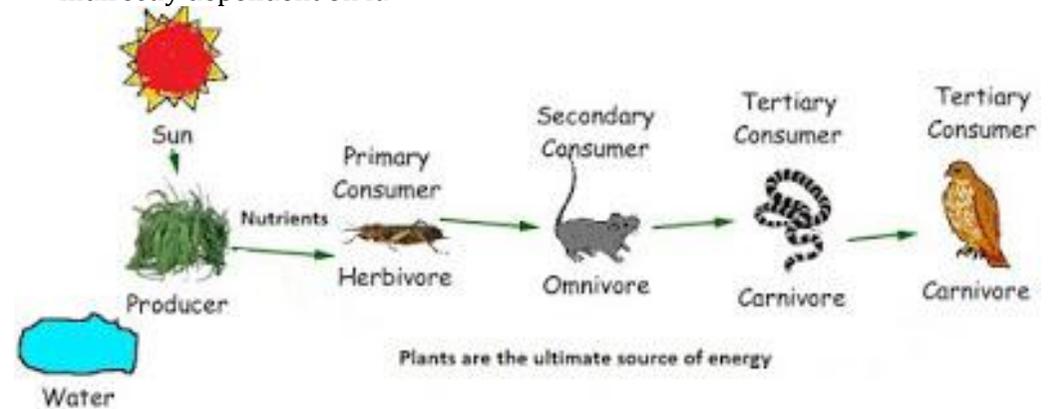
8. Symbiotic plants: Plants which live in association with other plants and share shelter and nutrients are called Symbiotic plants.

9. Insectivorous plants: Plants which eat insects to obtain Nitrogen are called Insectivorous plants.

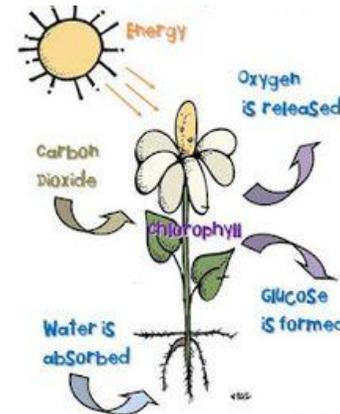
. Answer for diagramatic questions:

1. Show with the help of sketch that the plants are the ultimate source of food.

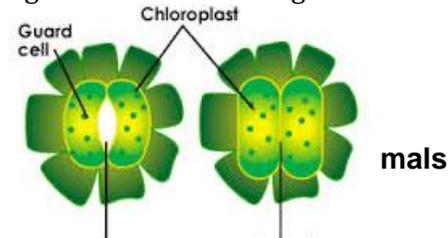
Ans: The food chain shows that the plant is the ultimate producer. Only plant can produce food and rest of other organisms are directly or indirectly dependent on it.



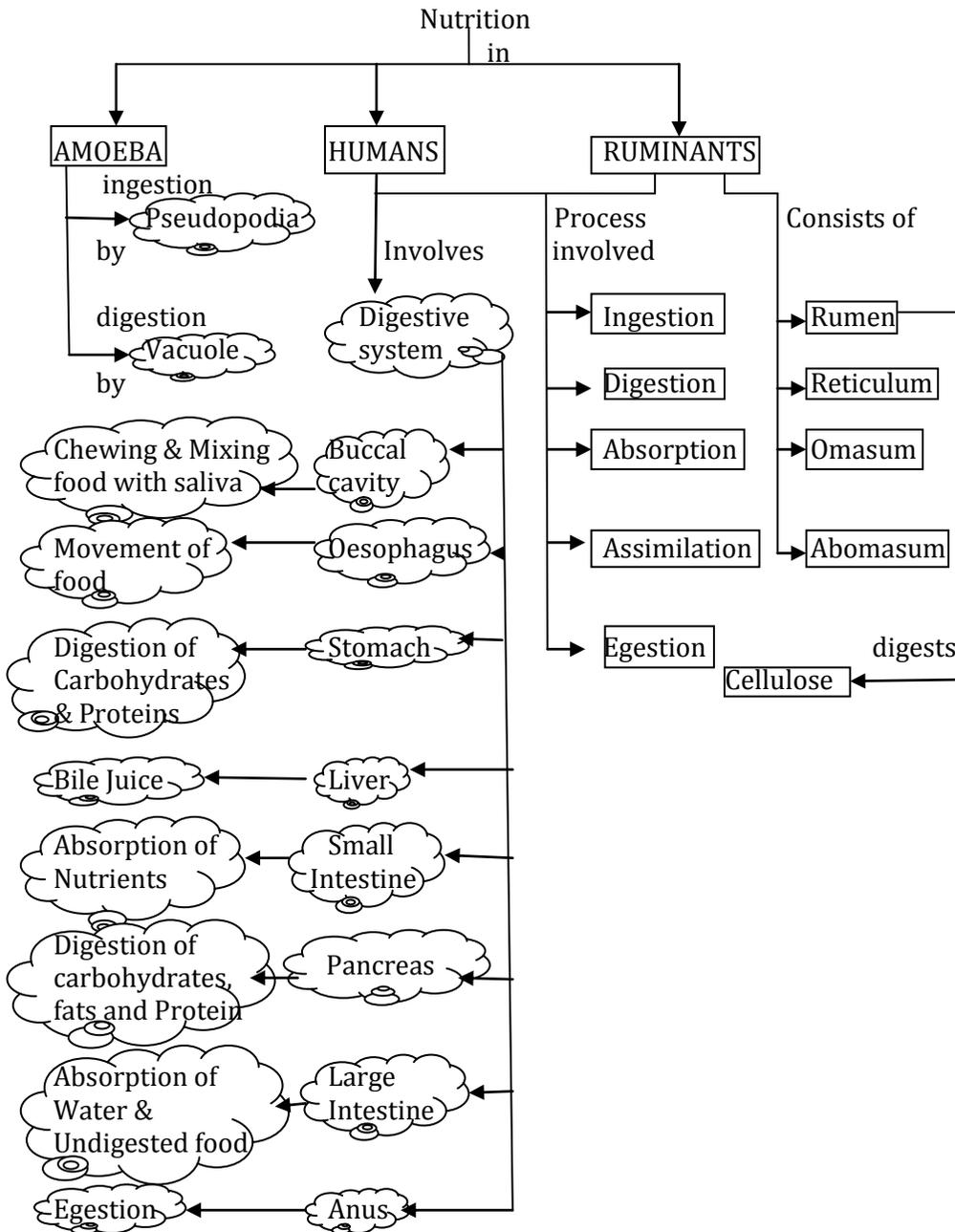
2. Draw a labelled diagram showing the process of photosynthesis.



3. Draw diagram of a leaf showing stomata in it.



I. Introduction:



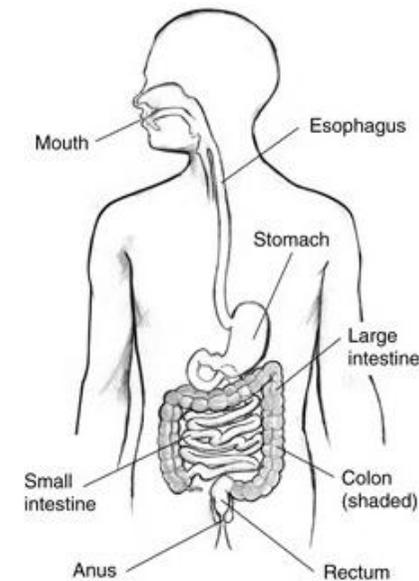
II. Definitions:

1. Holozoic Nutrition: The form of nutrition in which food is eaten in solid form.

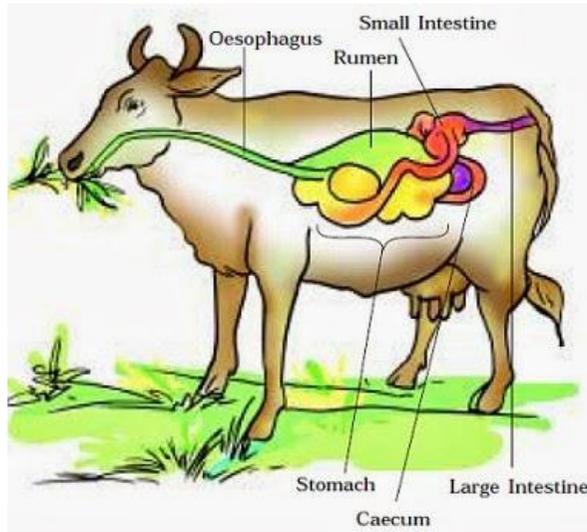
2. Ingestion: The process by which food is taken inside the body of an organism.
3. Digestion: The process of converting or breaking down complex food into simple and soluble form.
4. Assimilation: The process of using absorbed food molecules for producing energy and growth.
5. Absorption: The process by which the digested nutrients are taken to different parts of the body by the circulatory system.
6. Egestion: The process of removing undigested food materials from the body.
7. Ruminants: The plant-eating animals which bring back swallowed food into the mouth and chew it again.
8. Mastication: The process of chewing food to break down it into small pieces.
9. Peristalsis: The contraction and expansion of muscles of the oesophagus which help in movement of food to the stomach.

III. Diagrammatic representation:

1. Draw and label the digestive system of Human beings.



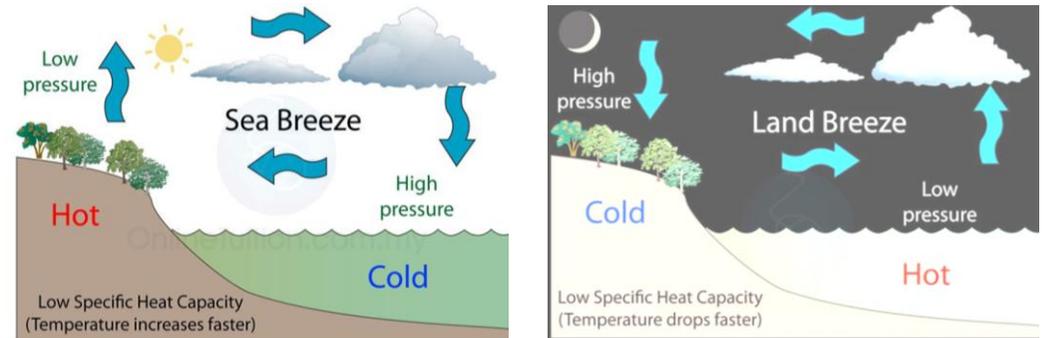
2. Draw and label the digestive system of ruminants.



8. Radiation : The process of heat transfer which does not require any material medium.

III. Diagrammatic representation:

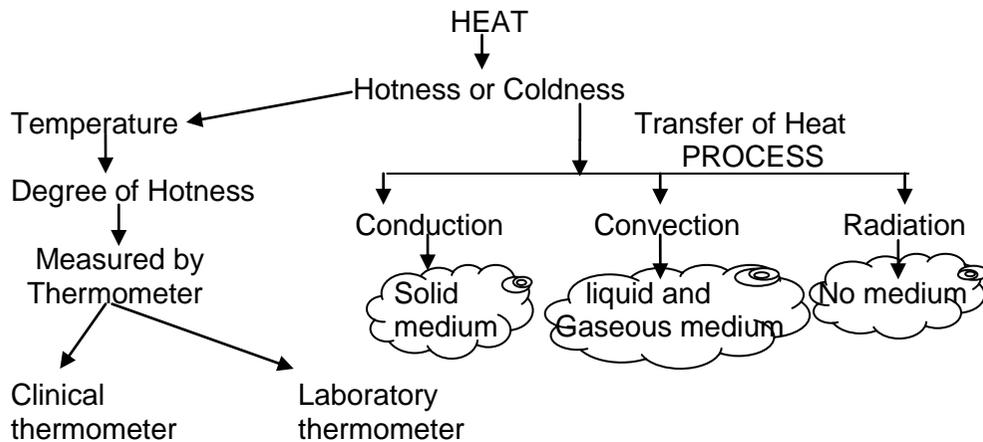
1. Land breeze and sea breeze.



2. Heat transfer by conduction, by convection and by radiation.

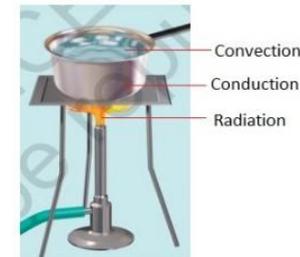
HEAT

I. MIND MAP:



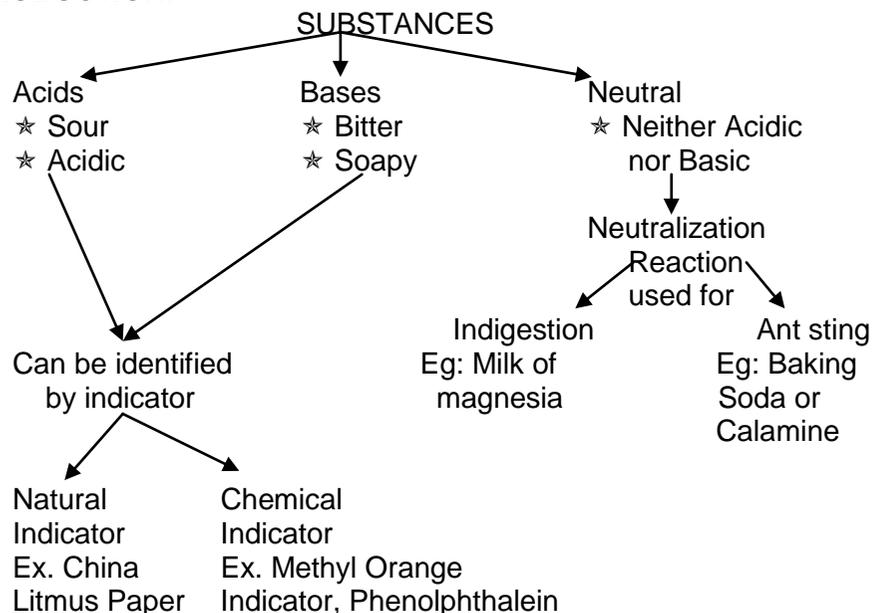
II. Definitions:

1. Heat : A form of energy that flow from hot object to a cold object
2. Temperature : The degree of hotness or coldness of an object
3. Thermometer : The instrument used to measure temperature.
4. Conduction : The process of transfer of heat from the hotter end to the colder end of an object.
5. Conductors : Materials that conduct heat easily.
6. Insulators : Materials that do not conduct heat.
7. Convection : The process of heat transfer with the help of actual movement of particles in a liquid medium.



5. ACIDS, BASES AND SALTS

I. INTRODUCTION:

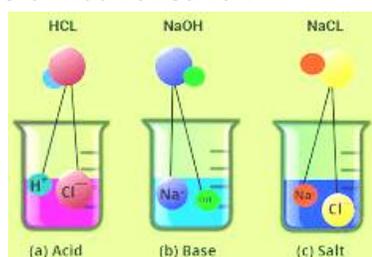


II. Definitions:

1. Acids : The chemical substances which are sour in taste.
2. Bases : The chemical substances which are bitter taste and soapy to touch.
3. Neutral substance : The substances that are neither acidic nor basic in nature.
4. Indicators : The substances that are used to test the acidic or basic nature of a substance.
5. Neutralization reaction : The reaction between an acid and a base to form salt and water.
6. Organic Acids: The acids which are found in plants and animals are called organic acids.
7. Mineral Acids : The acids prepared from the minerals of the Earth are called mineral acids.

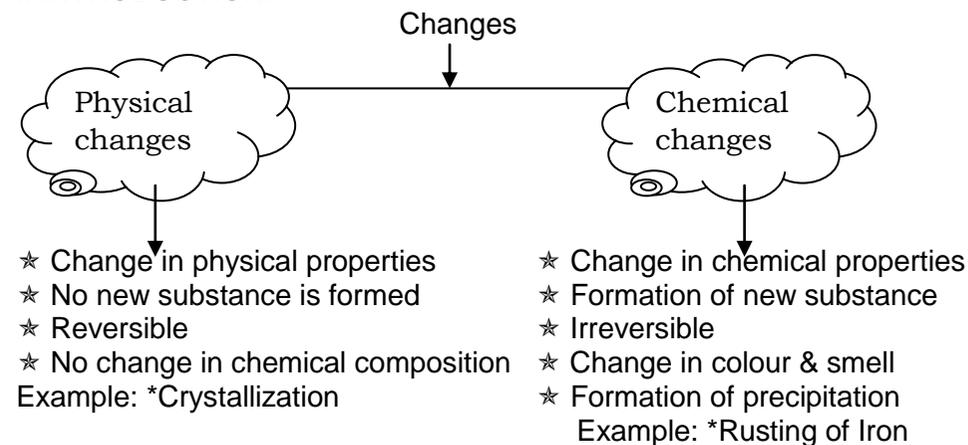
III. Diagrammatic representation:

1. Process of neutralisation



6. PHYSICAL AND CHEMICAL CHANGES

I. INTRODUCTION:

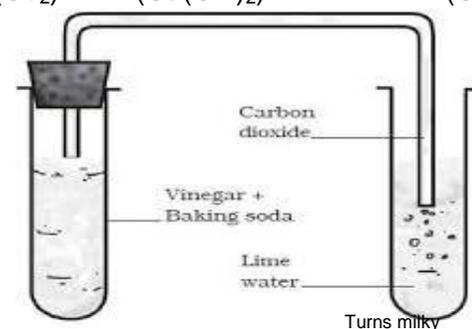
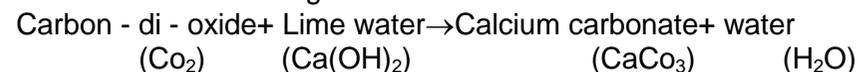


II. Definitions:

1. **Reversible change:** The change which can be reversed by reversing the conditions.
2. **Irreversible change:** The change which cannot be reversed even by reversing the conditions.
3. **Physical change:** A change in which only the physical properties of any substance get changed and no new substance is formed.
4. **Physical properties:** The properties such as size, shape, colour and state of a substances.
5. **Chemical change:** A change in which two or more substances react in such a way that there is formation of one or more new substances.
6. **Galvanisation:** The process of depositing a layer of zinc on iron.

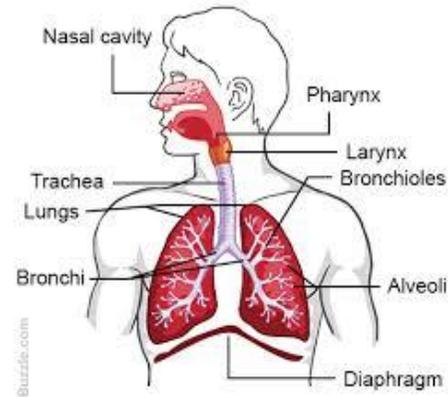
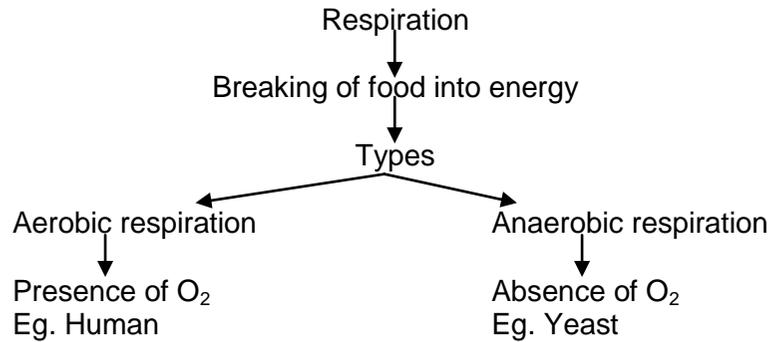
III. Diagrammatic representation:

1. Chemical change.



10. RESPIRATION IN ORGANISMS

I. INTRODUCTION:

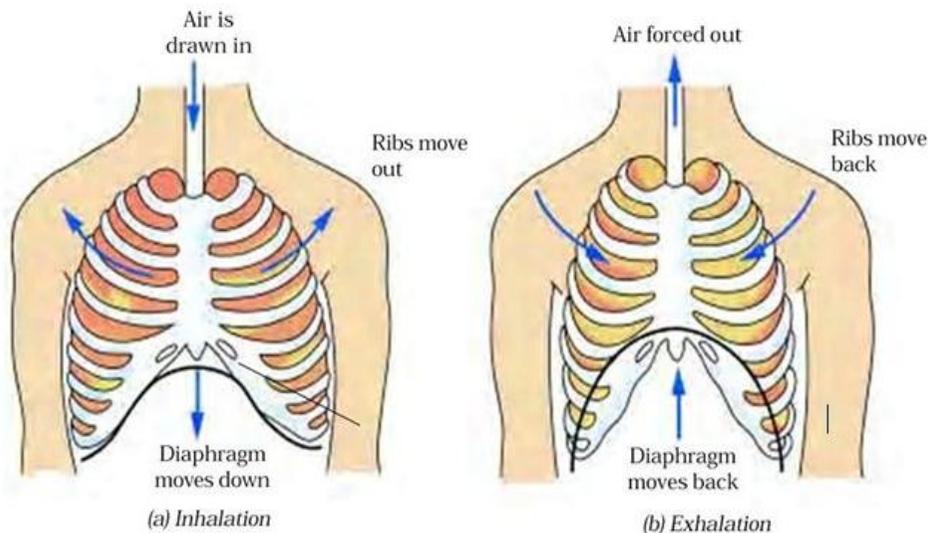


II. Definitions:

1. Respiration: The process of breakdown of food in the cells with the release of energy.
2. Aerobic respiration: A type of respiration in which breakdown of food substances takes place in the presence of oxygen with the release of a large amount of energy.
3. Anaerobic respiration: A type of respiration in which breakdown of food substances takes place in the absence of oxygen with the release of a small amount of energy.
4. Inhalation: Taking in of air rich in oxygen into the body.
5. Exhalation: Giving out of air rich in carbon - di - oxide
6. Breathing rate: The number of times a person breathes in a minute.

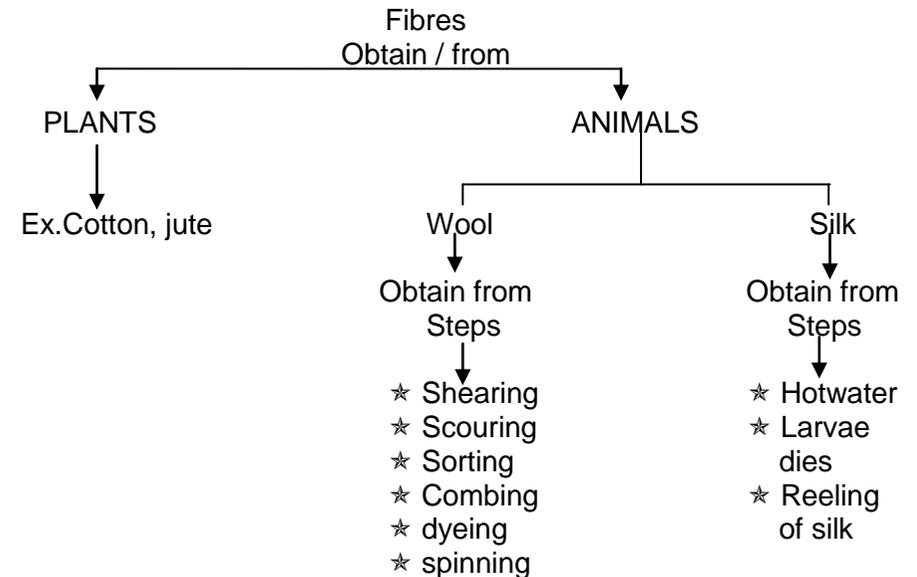
III. Diagrammatic question:

1. Draw and label Human respiratory system?



LS.3 FIBRE TO FABRIC

I. Introduction:

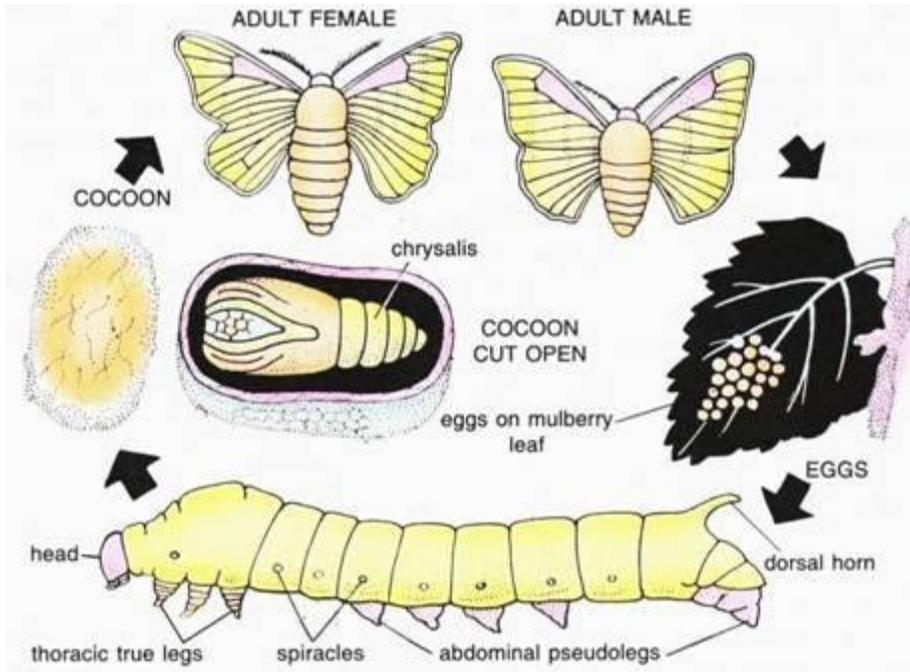


II. Definitions:

1. Shearing : The Fleece of the sheep along with a thin layer of skin is removed from its body. This process is called shearing
2. Fleece : The thick coat of hair on a sheep's body is called fleece.
3. Sericulture : The rearing of silkworms for obtaining silk is called sericulture.
4. Reeling : The process of obtaining Silk fibre from cocoons.
5. Cocoon : The Caterpillar completely covers itself by silk fibres and turns into pupa. This covering is known as cocoon.

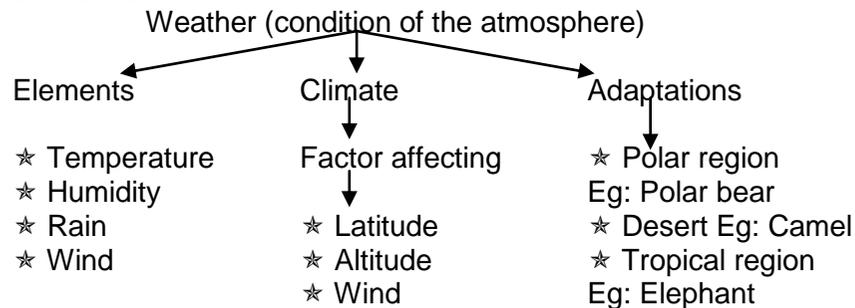
III. Diagrammatic representation:

1. Draw a sketch showing stages in life cycle of silk moth.



LS.7 WEATHER, CLIMATE AND ADAPTATIONS OF ANIMALS TO CLIMATE

I. INTRODUCTION:



II. Definitions:

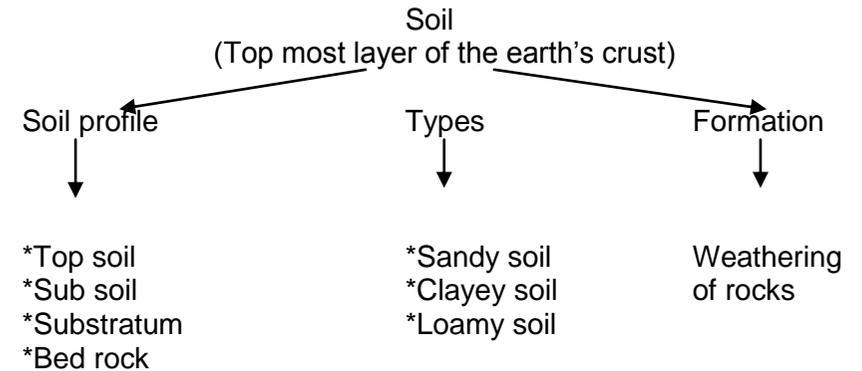
1. Weather: The day-to-day conditions of the atmosphere at a certain place with respect to temperature, humidity, rainfall, wind speed etc.
2. Humidity: The capacity of air to hold water vapour in it at a particular temperature.
3. Climate: The average weather pattern taken over a long time, say 25 years is called the climate.

4. Adaptation: The favourable characteristics which enable the living organisms better fitted to survive and breed in their surroundings is called adaptation.

5. Hygrometer: Relative humidity is measured with the help of an instrument called hygrometer.

CH.9 SOIL

I. Introduction:



II. Definitions:

1. Soil: The mixture of rock particles and humus is called soil.
2. Humus: The rotting dead matter in the soil is called humus
3. Weathering: The process of formation of soil from the breakdown of rocks is called weathering.
4. Soil profile: A vertical section through different layers of the soil is called soil profile.
5. Soil erosion: The removal of top soil by wind and water is known as soil erosion.

III. Diagrammatic representation:

1. Soil Profile:

