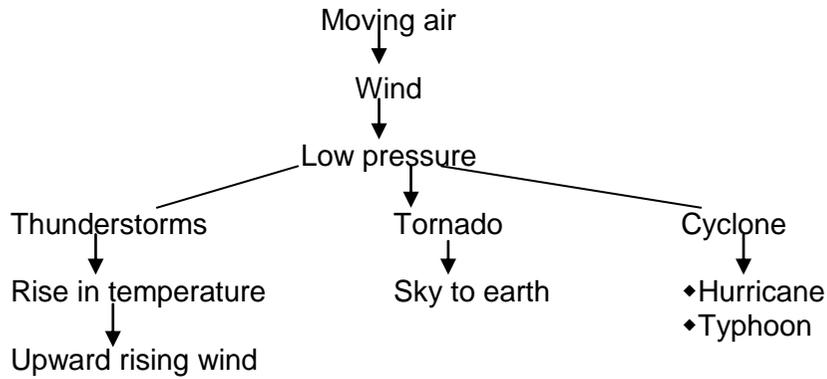


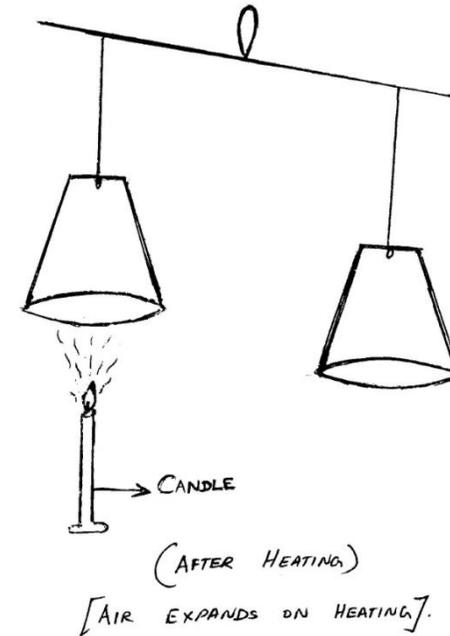
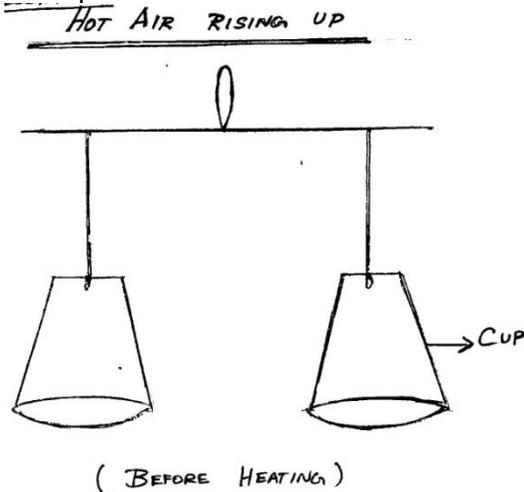
I. Introduction:



II. Definitions:

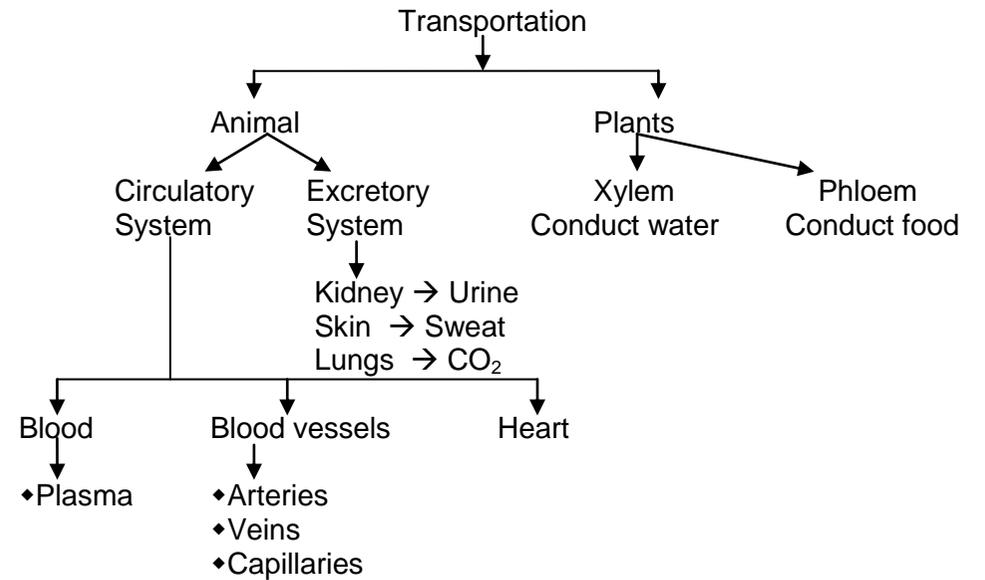
1. ATMOSPHERE: The layer of air surrounding the Earth.
2. ATMOSPHERIC PRESSURE: The pressure exerted by the air present in the atmosphere.
3. WIND: Moving air.
4. TORNADO: A funnel, shaped violently rotating column of air extending from the surface of the earth to the thunder cloud.
5. CYCLONE: A storm which develops on the sea and has high speed winds swirling around a low pressure centre.
6. THUNDERSTORMS: A violent storm with thunder and lightning.
7. ANEMOMETER: An instrument that measures the speed of the wind.

III. Diagrammatic representation:



11. TRANSPORTATION IN ANIMALS AND PLANTS

I. Introduction:



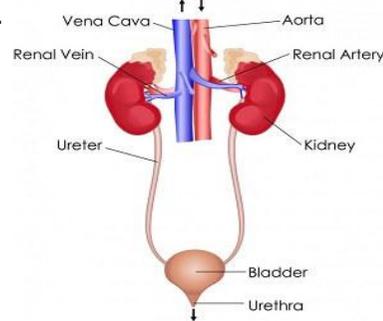
II. Definitions:

1. CIRCULATORY SYSTEM: The transport system in animals that moves substances throughout the body with the help of blood.

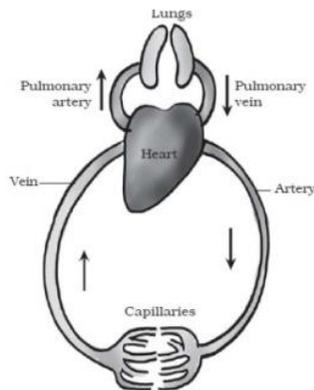
2. **VASCULAR TISSUES:** The transport system in plants that transport water, minerals and food materials within the plant body.
3. **ARTERIES:** Blood vessels that carry oxygen-rich blood from the heart to all parts of the body.
4. **VEINS:** Blood vessels that carry carbon-dioxide rich blood from all the parts of the body to the heart.
5. **CAPILLARIES:** The smallest blood vessels which connect arteries and veins.
6. **BLOOD:** A red-coloured fluid which flows inside the blood vessels.
7. **HEARTBEAT:** The regular rhythmic contraction and relaxation of the heart.
8. **STETHOSCOPE:** A device to amplify the sound of the heart.

III. Diagrammatic representation:

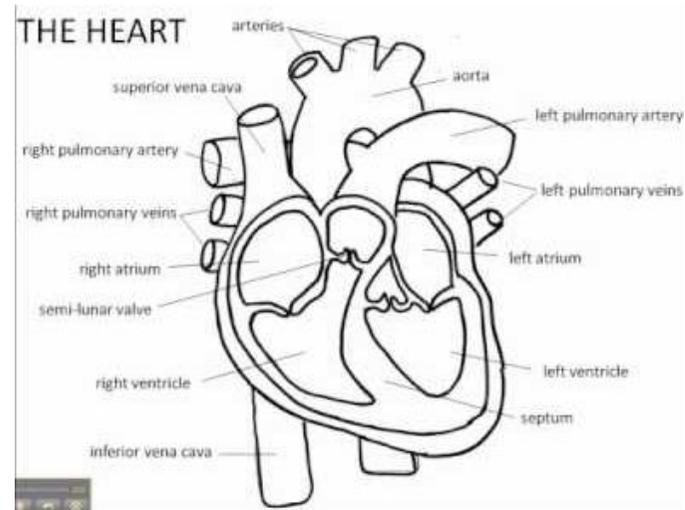
1. Draw a diagram of the human excretory system and label the various parts.



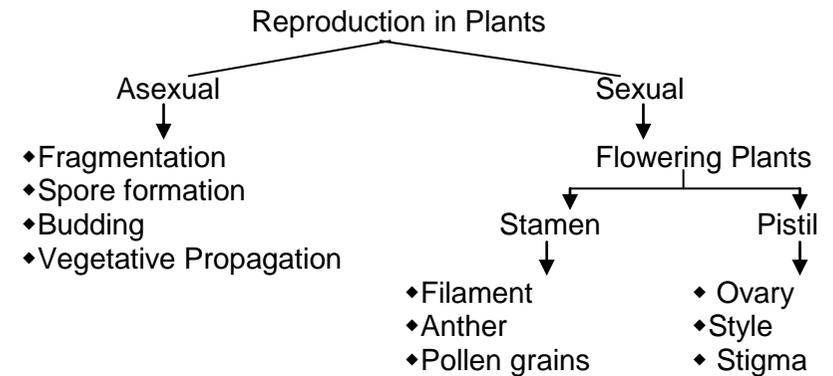
2. Schematic Diagram of circulation.



3. Structure of Human Heart:



I. Introduction:



II. Definitions:

1. **REPRODUCTION:** The production of new individuals from the parents.
2. **ASEXUAL REPRODUCTION:** A type of reproduction in which new individuals are produced without seeds or spores.
3. **SEXUAL REPRODUCTION:** A type of reproduction which involves the fusion of male and female gametes.
4. **VEGETATIVE REPRODUCTION:** The process of obtaining new plants from roots, stems, leaves or bud.
5. **FRAGMENTATION:** An organism breaks up into two or more fragments grow into new individuals.

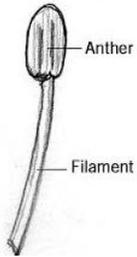
6. POLLINATION: The transfer of pollen grains from an anther to the stigma of a flower.

7. SELF-POLLINATION: The transfer of pollen grains from an anther to the stigma of the same flower or other flower on the same plant.

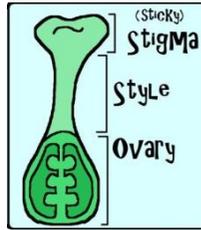
8. CROSS-POLLINATION: The transfer of pollen grains from an anther to the stigma of a flower on another plant of the same kind.

III. Diagrammatical Representation:

1. Sketch the reproductive parts of a flower.

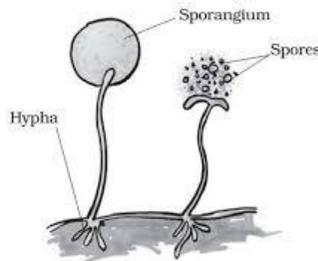


a) Stamen

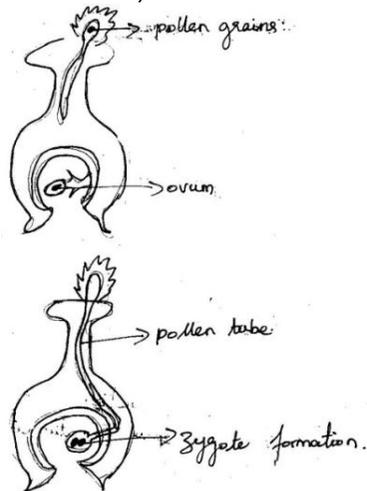


b) Pistil

2. Spore Formation.

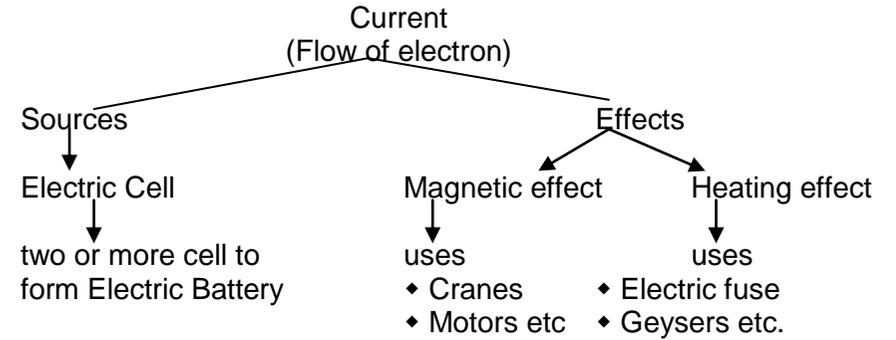


3. Fertilisation(Zygote formation)



14. ELECTRIC CURRENT AND ITS EFFECT

I. Introduction:



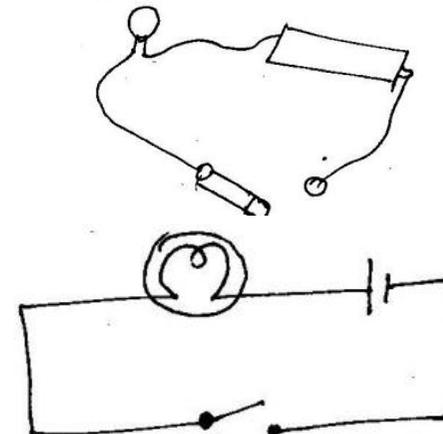
II. Definitions:

- (i) CURRENT: The flow of electric charge.
- (ii) BATTERY: A combination of two or more cells.
- (iii) ELECTRIC CIRCUIT: The path along which electric current can flow.
- (iv) RESISTANCE: The hindrance in the path of moving electrons.
- (v) CONDUCTORS: Substances which conduct electricity.
- (vi) INSULATORS: Materials which show resistance or conduct almost no electric current through them.
- (vii) FUSE: A Safety device in an electric circuit which prevents short circuit.
- (viii) ELECTROMAGNET: A current carrying coil of insulated wires wrapped around a piece of iron.

III. Diagrammatic Representation:

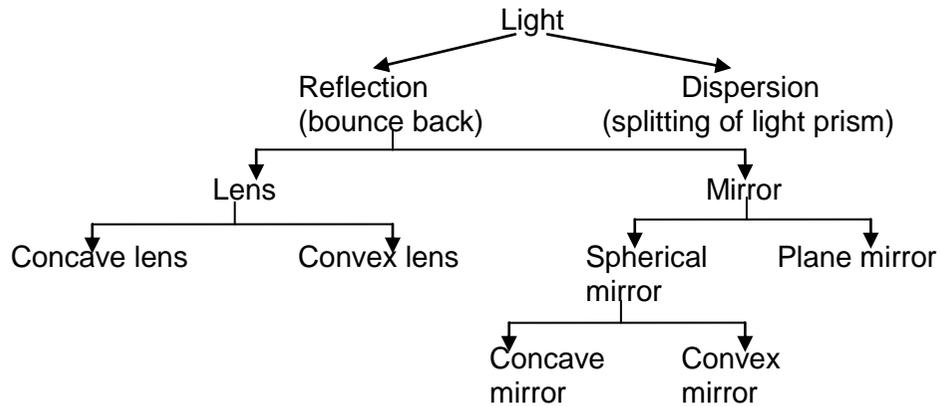
1. Draw the circuit diagram to represent the circuit shown in figure.

Ans:



15. LIGHT

I. Introduction:



II. Definitions:

1. Rectilinear propagation of light : The property of light travelling in a straight line.
2. Reflection : The bouncing back of light from the surface of an object.
3. Incident ray : The ray of light that falls on the surface of the plane mirror.
4. Reflected ray : The ray of light that is reflected from the surface of the mirror
5. Image: The appearance of a real object, formed by the light that passes through a lens or is reflected from a mirror.
6. Mirror: Any smooth or polished surface which can reflect a ray of light.
7. Lens : A piece of transparent material which has one or two spherical surfaces.
8. Refraction : The change of path of the light rays by the surface of the lens in different conditions.
9. Focus : The point at which the parallel rays of light converge.

V. Diagrammatic Representation:

Spherical Mirrors:

(i) A Convex mirror



(ii) A concave mirror



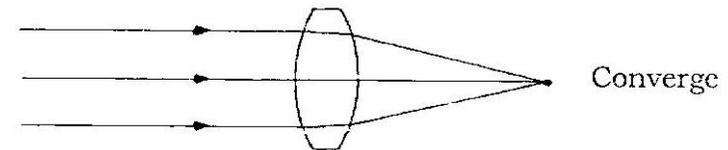
Lens: A Convex lens:



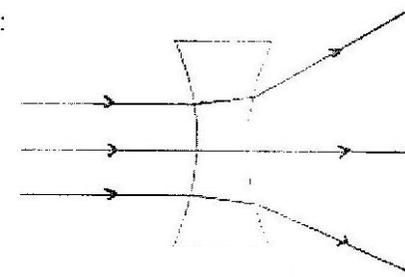
A concave lens:



Converging Light:



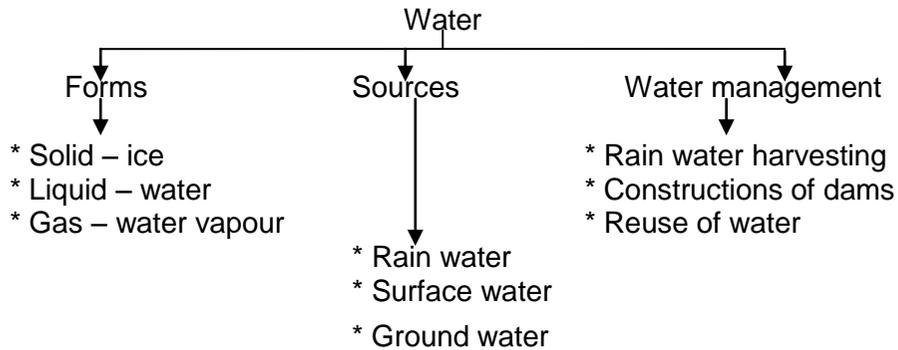
Diverging Light:



Concave lens

16. WATER A PRECIOUS RESOURCES

I. Introduction:

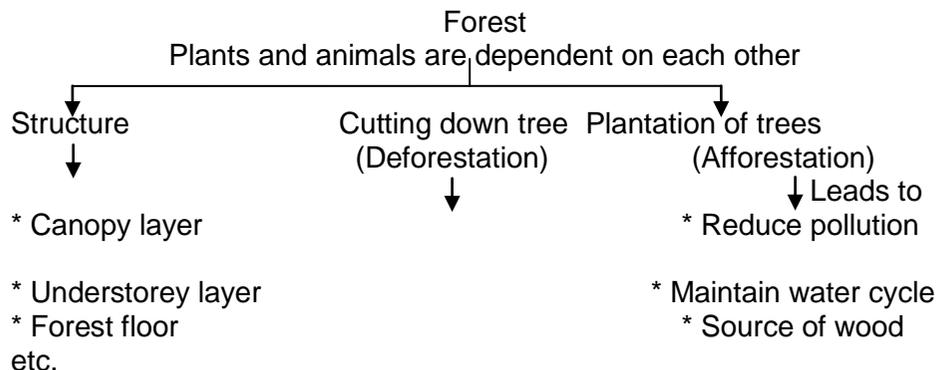


II. Definitions:

1. Water cycle : The continuous circulation of water from the earth to the atmosphere and back again.
2. Water table : The level of ground water.
3. Infiltration : The process of seeping of water deep below the ground
4. Aquifer : The place where the ground water is stored between layers of hard rock below the water table.
5. Rain water harvesting : The rain water is used to recharge the ground water.

CH. 17 FORESTS: OUR LIFE LINE

I. Introduction:



II. Definition:

1. Canopy:

A roof or cover formed by the tree branches in the upper regions is known as canopy.

2. Crown:

The part of a tree, above the stem, which has branches.

3. Understorey:

The plant layers found at different height below the canopy is called understorey.

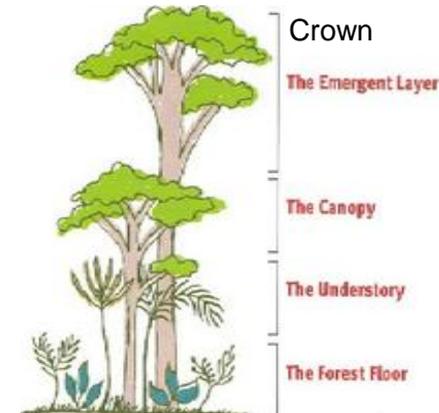
4. Decomposers:

The micro-organisms which convert the dead plants and animals to humus are known as Decomposers.

5. Food chain:

A chain in which one organism eats another organism is called food chain.

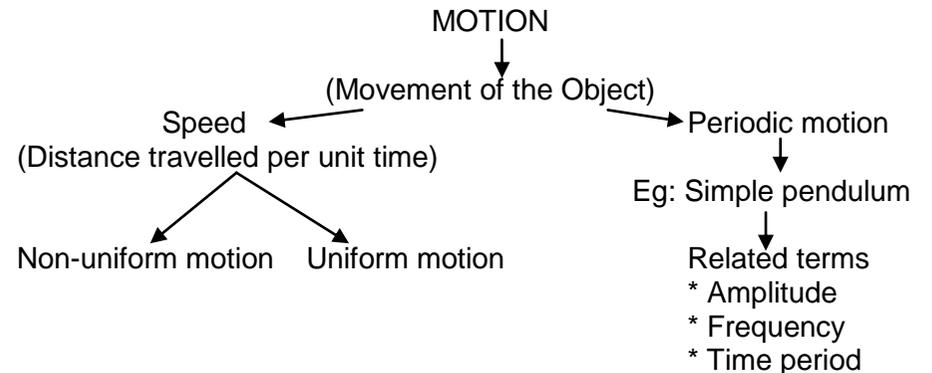
III. Diagrammatic Representation:



Different layers in forest

CH.13 MOTION AND TIME

I. Introduction:



II. Definitions:

1. Time period:

The time taken by the pendulum to complete one oscillation is known as Time period.

2. Speed:

The distance covered by a moving body in unit time.

3. Non-uniform motion:

The speed of an object moving along a straight line keeps changing, its motion is said to be non-uniform motion.

4. Uniform motion:

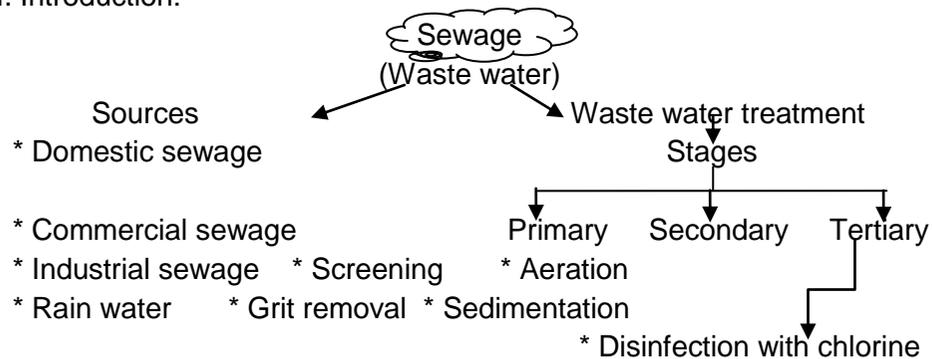
An object moving along a straight line with a constant speed is said to be uniform motion.

III. Diagrammatic Representation:

Simple Pendulum: Refer Pg. No. 146 Fig: 13.4 (b)

CH.18 WASTE WATER STORY

I. Introduction:



II. Definition:

1. Waste water:

Dirty water that runs down the drains from sinks, showers and bathroom is called waste water.

2. Sewage treatment:

The process of removing pollutants from waste water before it enters water bodies is said to be sewage treatment.

3. Contaminants:

The dissolved and suspended solid impurities present in sewage.

4. Sewage:

Sewage is a liquid waste which causes water and soil pollution.

5. Potable water:

Clean water that can be consumed is known as potable water.