

Hematology

Hematology is the branch of science that focus on the blood and diseases of the blood.

Hematology is the process in further, composition, function and diseases of blood are studied.

Blood is a fluid that flows through the blood vessels in the body. It is the connective tissue.

It is the origin and Red colour.

Hemoglobin protein find in the blood.

It is always called circulation in vessels.

The Blood in the arteries is Red.

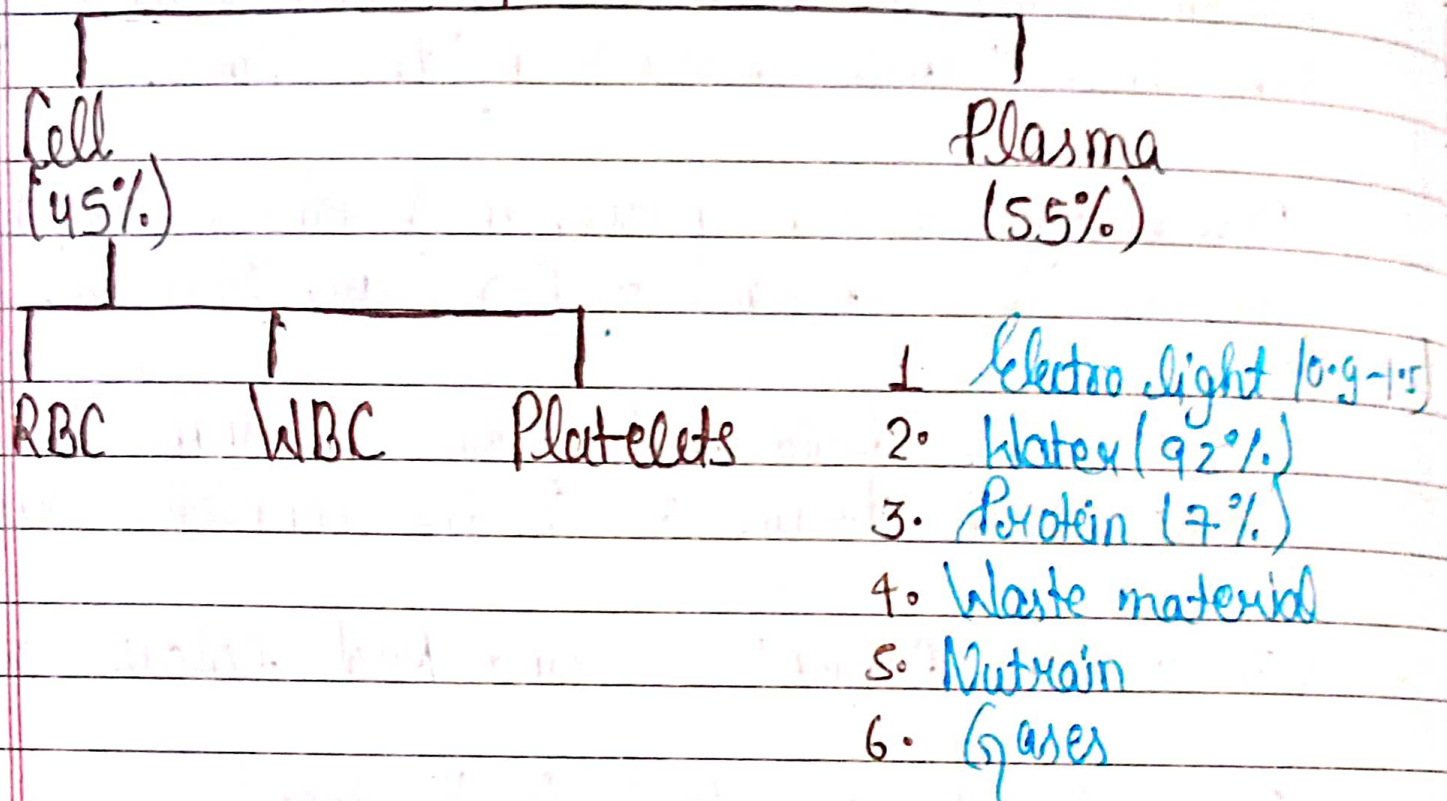
Blood

Defination:- Blood is a red vascular connective tissue.

6 to 8%. Blood in Our body

5 to 6 lit. Blood in healthy person (weight 70 kg)

Blood



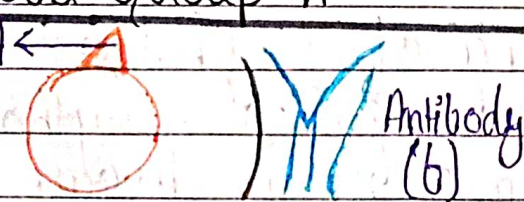
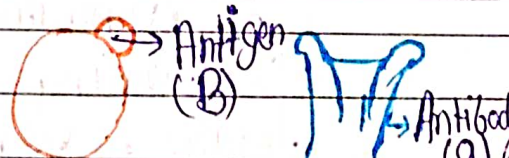
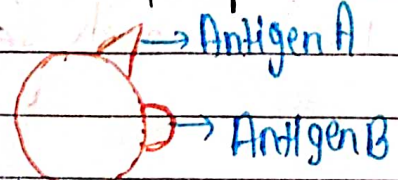
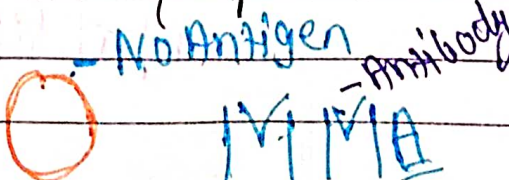
Electrolyte [विद्युत अपघट्य] + Electrolyte are substances that have a natural positive or negative electrical charge when dissolved in water.

Inorganicism → K^+ , Na^+ , Ca^+ , B^+ etc.

Organism → प्रोटीन (7%)

Protein: A protein is a naturally occurring, extremely complex substance that consists of amino acid residues joined by peptide.

- Discovered by "Land Steiner"
- Antibody present in Plasma
- Liquid of blood known as
- RBC float in this liquid Plasma
- Antibody 'a' and 'b'
- Antigen present are RBC Surface
- Antigen made by Protein
- Blood Group depend on Antigen

Blood Group A	Blood Group B
 Antigen A Antibody (b)	 Antigen (B) Antibody (a)
 Antigen A Antigen B No antibody Present	 No Antigen Antibody (a) Antibody (b)

Rh factor

- The Rh factor is a protein that can be found on the surface of RBC.
- If your blood cells have this protein if you are Rh positive (Rh⁺)
- If your blood cell has not this protein if you are Rh negative (Rh⁻)
- This protein formed in first time Rhesus Monkey
- * सबसे ज्यादा Antigen Power O में होती है
- * सबसे कम Antigen Power AB में होती है

Erythroblastosis

The abnormal presence of erythroblast in the circulating blood also called Erythroblastosis fetalis. An anemic blood disease of a fetus or Newborn baby, characterized by erythroblasts in the circulating blood. Caused by a blood incompatibility between mother and father.

Agglutination :-

Agglutination which refers to the clumping of particles together is an Antigen - Antibody Reaction that occurs when an antigen is mixed with its corresponding antibody at a suitable pH and temperature.

* ⁶⁶Antigen - antibody interaction, Or antigen - antibody reaction is a specific chemical Interaction between antibodies produced by B-cells of the BLC and Antigens during Immune reaction.

The antigens and antibodies combine by a process called "agglutination."

Haemagglutination

Blood agglutination is a type of agglutination that occurs when antibodies bind to specific binding site on antigens expressed on red blood cell.

Because of the case of a clumping reaction Hemagglutination is a critical technique in blood type Classification.

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General Points:-

- Other name of RBC is "Erythrocyte".
- Neutro an other names is "Polymorphonuclear Leukocytes".
- Largest Agranulocyte is "Monocytes".
- The use of ESR (Erythrocyte sedimentation Rate) examination is a infection in our body.
- Liver producing cells are Hepatocytes.
- O⁻ blood group is called "Universal donor".
- The Red colour in RBC is called as "Hemoglobin".
- Normal range of Hemoglobin 13.5 - 17.5 g/dl.
- Female - 12 - 15.5 g/dl.
- Tissue taken from dead bodies is "Cataver-Gift".
- AB⁻ blood group is called "Universal Receiver".
- Normal total leucocyte count is 4500 - 11000.

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Leucocyte is called WBC.

Name of a drug antiagulent ☐ Antiagulerit
(Heparins)