Biology 2nd paper
Chapter-04
Lecture-02[EV]

In this lecture we will learn : Leukocytes or white Blood cells[WBC], Thrombocytes or Blood platelets.

Leukocytes or white Blood cells[WBC] : Leukocytes or white blood cells are transparent, nucleated,amoeboid, and granular or granular, irregular shaped blood corpuscles found in plasma and lymphatic system. These are also known as mobile defensive unit of the body. The cancer of leukocytes is called leukomia.

Type of leukocytes: Leukocytes are mainly two types-

A. Granular leukocytes or granulocytes
B. Agranular leukocytes or agranulocytes

A.**Granulocytes:**These leukocytes are round cells have granular cytoplasm and a lobed nucleus in each. They are three types based on the stains they take-

i. Neutrophils: Neutrophils are the most abundant white blood cell, They contain neutral-staining granules.They defend against bacteria or fungal infection.

ii. **Eosinophil**: Their cytoplasm is granular and takes the colour of eosin red.

iii. **Basophil**:The granules of cytoplasm are alkaline and they hold the blue colour.

Leukocytes can be further classified as T cells, B cells and natural killer cells.

Functions of leukocytes :

= The WBCs, mainly the neutrophils and lymphocytes, engulf the bacteria by the bacteria by the procrss phagocytes.
= Lymphocytes involved in the production of antibodes that neutralize,killor poison the germs.These are called as microscopic soldiers.
= Basophils produce heparins which prevent blood clotting within vessels.

Thrombocytes or Blood platelets:

The thrombocytes or blood platelets are the smallest, colourless, no nucleated cells of the blood. Platelets are formed in the bone marrow by segmentation of the cytoplasm of cells known as megakaryocytes, the largest cells of the marrow.The main chemical components of platelets are protein and phospholipids.

Functions of blood platelets:
=Hemoostasis
=Blood coagulation
= Phagocytosis
=Storage and transport