

Objective - Student will study about the clinical and laboratory investigation, diagnosis and medical management of diseases of the blood and blood- forming tissues

- UNIT – 1 Blood:** Composition and functions of blood, blood cells-RBC's, WBC's Platelet, serum, plasma, hemoglobin, hematopoietic systems of human body, human blood group system, body fluids, blood volume, homeostasis, stages of RBC's, WBC's and platelets.
- UNIT - 2 Hematological disorders and diseases:** Introduction, Types of hematological disorders, Anemia, classification of anemia- morphology and etiological, iron deficiency anemia- distribution of iron in body, iron absorption, causes of iron deficiency, lab findings, megaloblastic anemia- causes and lab findings, hemolytic anemia- causes and lab findings, thalassemia, HDN, polycythemia, Leukemia, multiple myeloma, parasitic infection of blood.
- UNIT - 3 Bone Marrow:** Introduction, cell composition of normal adult bone marrow, Types of bone marrow specimen collection, aspiration, indication, preparation and staining, special stain for bone marrow- periodic Acid Schiff, Sudan black, myeloperoxidase, Trephine Biopsy- collection, indication, preparation and staining techniques.
- UNIT - 4 Coagulopathies and bleeding disorder:** bleeding disorders, hemostasis, clotting or coagulation factors, mechanism of coagulation, routine coagulation tests- prothrombin time, activated partial thromboplastin time, bleeding time, clotting time, Clot retraction time, laboratory diagnosis of bleeding disorder.

Recommended Books:

- hematology board review, blue prints hematology, diagnostic cytology and hematology, P.B Godkar]
- Haematology (H.R. BA