VML-302 Routine Haematological Test

Objective - Student will learn tests on the blood, blood proteins and blood-producing organs.

These tests can evaluate a variety of blood conditions including infection, anemia, inflammation, hemophilia, blood-clotting disorders, leukemia and the body's response to chemotherapy treatments.

UNIT – 1 **Routine tests:** determination of hemoglobin concentration by Sahli's method & cyanmeth method, determination of total erythrocyte count, total leucocyte count, platelet count, packed cell volume (hematocrit), erythrocyte sedimentation rate, enumeration of formed elements.

UNIT - 2 **Red Cell Indices:** Determination and calculation of red blood cell indices- MCV (mean cell volume), MCH (mean cell hemoglobin), MCHC (mean cell hemoglobin concentration.

Blood Picture microscopy: study, preparation and staining of blood smear, reticulocyte count, differential leucocyte count (DLC) eosinophil count.

UNIT - 3 **Special hematological tests:** screening of sickle cell anemia, estimation of foetal hemoglobin, hemoglobin electrophoresis, osmotic fragility test, Heinz body preparation, laboratory diagnosis of blood parasites, lupus erythematosus (LE), preparation of bone marrow smear for microscopic examination for microscopic examination, cytochemical tests.

Recommended Books:

- hematology board review, blue prints hematology, diagnostic cytology and hematology, P.B Godkar]