**Hematology and Blood Banking-I) BVOMLT-306**

Unit I

Special Hematological tests & factors in Hemoglobin synthesis & automation

Screening of sickle cell anaemia, Estimation of foetal haemoglobin, Haemoglobin electrophoresis, Osmotic fragility test, Heinz body preparation, Laboratory diagnosis of protozone blood parasites, Lupus erythematosus (LE) cell preparation, Preparation of bone marrow smear for microscopic examination , Cytochemical tests.

Autoanalysis- Electrolyte acid base balance

Acid base balance

Interpretation of lab findings in Haematology

Anaemias, Leukaemias, Miscellaneous disorders.

Unit II

Haemostasis & Bleeding Disorders

Introduction to Haemostasis & coagulation

Heamostasis,Mechanism of blood coagulation, Fibrinolysis.

Laboratory Investigation & Bleeding Disorders

Laboratory preparation for coagulation tests , Routine coagulation tests, (prothrombin time , plasma recalcification time ,partial thromboplastin time , activated partial thromboplastin time, thrombin time,Laboratory diagnosis of bleeding disorders .

Unit III

Immunohaematology & Blood Transfusion

Principles of Immunohaematology & Clinical of Blood Transfusion

Principles of immunohaematology,Human blood group systems,(basic ABO blood group systems, Clinical significance of blood transfusion.

Collection & Processing of blood for transfusion

Preparation for blood collection, Blood collection, Transportation of blood after collection , storage of blood, Preparation and use of blood components.

Unit IV

Routine Lab Procedures in Blood Bank

Routine Lab procedures in Blood Bank

Specimen collection for blood bank, General laboratory reagents in blood bank . Preparation of laboratory regents in blood bank ,Reporting of haemagglutination reaction, ABO blood grouping Rh blood typing Antihuman globulin (AHG) or cross matching

Transfusion reactions & Haemolytic Disease of a new born

Blood transfusion process, Transfusion reaction , Haemolytic disease of the newborn .