

CURRICULUM 2nd SEMESTER 2 YEARS TECHNOLOGY

PATHOLOGY TECHNOLOGY

Paper A Haematology & clinical Pathology –I

Paper B Histo & Microbiology

1. HAEMATOLOGY

- Introduction to Hematology
- Reagents and equipments used
 - 1.Hb% estimation, RBC, WBC, Platelets Counts
 - 2.Staining, peripheral smear, (Giemsa staining) R....count, Bone marrow smear
- Blood cells and stages of development
- Hemoglobin and its estimation
- Anticoagulants and sample collection
- RBC morphology and counts
- Erythrocytes sedimentation Rate (ESR)procedure and its value in disease condition

2. CHEMICAL PATHOLOGY

- **Introduction to chemical pathology**
- **Measurements(lengths, volume, weight, concentration Molarity, Normality, Molality, Equivalence solution, % solution, stock solution, working solution etc W/W solution, V/W solution, W/V solution)**
- **Principle of instruments used in biochemical tests**
 - 1.Flasks
 - **Conical**
 - **Round based**
 - **Relorts**
 - **Graduated**
 - **Hard glass**
 - ii.Test tubes
 - iii.Pipits
 - iv.Covets

3. HISTOPATHOLOGY

- **Introduction to Histopathology**
- **Normal Histology of**
 - i.Simple Epithelium

CURRICULUM 2nd SEMESTER 2 YEARS TECHNOLOGY

PATHOLOGY TECHNOLOGY

a.Squamous

b.Columnar

i.Ciliated

ii.Non ciliated

c i.Cuboidal

i.Stratified

ii.Transitional

4. MICROBIOLOGY

- Introduction to microbiology
- Classification of bacteria
- Description of bacteria
- Common pathogenic bacteria (Enumeration of Respiratory tract, GI tract, Skin, Urinary tract and Genital tract)

CURRICULUM 3rd SEMESTER PATHOLOGY TECHNOLOGY

Paper A Haematology & clinical Pathology-II

Paper B Histo & Microbiology –II

HAEMATOLOGY

- Leucocytes morphology and counts
- Platelets
- Leucocytes
- Blood coagulation
- Blood banking
 - Introduction
 - Temperature maintenance
 - Record keeping
 - Donor selection
 - Venepuncture and blood collection
 - Labelling and storage
 - Patient blood collection
 - Blood Grouping
 - Cross Matching
 - Screening of Doner,s blood(for HIV,HBS,HCV)

1. CHEMICAL PATHOLOGY

- Acid/Base
- Buffers concentration Unit
- Urinalysis
 - Biochemistry
 - Sugar
 - Albumen
 - Bile salts
 - Bile Pigments
- Blood chemistry
 - Parameters in blood chemistry
 - Normal values
 - End-point and kinetic Measurements
 - Serum/Plasma Separation
 - Protein precipitant to obtain protein free fluid (PFF)
 - Changes in blood chemistry on storage of sample and preservation

2. HISTOPATHOLOGY

- Routine Histopathological techniques

3. MICROBIOLOGY

- Introduction to virology
- Introduction to serology
- Introduction to immunity and hypersensitivity

CURRICULUM 4th SEMESTER 2 PATHOLOGY TECHNOLOGY

Paper A Haematology & clinical Pathology III

Paper B Histo & Microbiology -III

1. HAEMATOLOGY

- Blood bank
 - Space
 - Staff Requirements
 - Equipments
- **Haemagglutination reactions**
- Antigens
- Blood group system
- Blood transfusion reaction
- Quality control
- Bio-safety measures
- review

2. CHEMICAL PATHOLOGY

- Assay techniques and principals
- Examination of body fluids
- Quality control
- Bio-safety measures

3. HISTO PATHOLOGY

- Practical work in histopathology
- Quality control
- Bio-safety measures

4. MICROBIOLOGY

- Autoimmune disease immunization
- Para cytology
- Mycology
- Quality control