

**DETAILED SYLLABUS**  
**FOR**  
**DISTANCE EDUCATION**

**B.Sc. (Lab Technician)**  
**(SEMESTER SYSTEM)**

**B.Sc.Lab Technician**

DURATION : 3 YEAR

MODE : SEMESTER

FIRST SEMESTER

COURSE TITLE	Paper Code	MARKS				
		THEORY		PRACTI- CAL		TO- TAL
		INTER- NAL	EXTER- NAL	INTERNAL	EXTER- NAL	
BASICS OF HUMAN ANATOMY	BSCLT/S/ 110	40	60			100
BASICS OF HUMAN ANATOMY	BSCLT/S/ 110 P			40	60	100
BASICS OF MEDICAL PHYSIOLOGY	BSCLT/S/ 120	40	60			100
BASICS OF MEDICAL PHYSIOLOGY	BSCLT/S/ 120 P			40	60	100
PATHOLOGY	BSCLT/S/ 130	40	60			100
PATHOLOGY	BSCLT/S/ 130 P			40	60	100
COMPUTER SKILLS	BSCLT/S/ 140	40	60			100

SECOND SEMESTER

COURSE TITLE	Paper Code	MARKS				
		THEORY		PRACTI- CAL		TO- TAL
		INTER- NAL	EXTER- NAL	INTERNAL	EXTER- NAL	
COMMUNICATION SKILLS	BSCLT/S/ 210	40	60			100
BASICS OF BIOCHEMISTRY	BSCLT/S/ 220	40	60			100
BASICS OF BIOCHEMISTRY	BSCLT/S/ 220 P			40	60	100
INTRODUCTION TO MICROBIOLOGY	BSCLT/S/ 230	40	60			100
INTRODUCTION TO MICROBIOLOGY	BSCLT/S/ 230 P			40	60	100
MS-OFFICE	BSCLT/S/ 240	40	60			100

THIRD SEMESTER

COURSE TITLE	Paper Code	MARKS				
		THEORY		PRACTI- CAL		TO- TAL
		INTER- NAL	EXTER- NAL	INTERNAL	EXTER- NAL	
PARASITOLOGY	BSCLT/S/ 310	40	60			100
PARASITOLOGY	BSCLT/S/ 310 P			40	60	100
BACTERIOLOGY	BSCLT/S/ 320	40	60			100
BACTERIOLOGY	BSCLT/S/ 320 P			40	60	100
BODY FLUIDS & STOOL EXAMINATION	BSCLT/S/ 330	40	60			100

CLINICAL LAB	BSCLT/S/ 340	40	60			100
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#### FOURTH SEMESTER

COURSE TITLE	Paper Code	MARKS				
		THEORY		PRACTICAL		TOTAL
		INTERNAL	EXTERNAL	INTERNAL	EXTERNAL	
HISTOPATHOLOGY	BSCLT/S/ 410	40	60			100
HISTOPATHOLOGY	BSCLT/S/ 410 P			40	60	100
CYTOLOGY	BSCLT/S/ 420	40	60			100
CYTOLOGY	BSCLT/S/ 420 P			40	60	100
DIAGNOSTIC BLOOD SUGAR & CHOLESTEROL	BSCLT/S/ 430	40	60			100
DIAGNOSTIC BLOOD SUGAR & CHOLESTEROL	BSCLT/S/ 430 P			40	60	100
BIOCHEMISTRY TESTS	BSCLT/S/ 440	40	60			100

#### FIFTH SEMESTER

COURSE TITLE	Paper Code	MARKS				
		THEORY		PRACTICAL		TOTAL
		INTERNAL	EXTERNAL	INTERNAL	EXTERNAL	
BLOOD BANKING & TRANSFUSION TECHNIQUE	BSCLT/S/ 510	40	60			100
BLOOD BANKING & TRANSFUSION TECHNIQUE	BSCLT/S/ 510 P			40	60	100
PROTEINS & CLINICAL ENZYMOLOGY	BSCLT/S/ 520	40	60			100
PROTEINS & CLINICAL ENZYMOLOGY	BSCLT/S/ 520 P			40	60	100
LIVER FUNCTION TESTS	BSCLT/S/ 530	40	60			100
LIVER FUNCTION TESTS	BSCLT/S/ 530 P			40	60	100
CLINICAL LAB	BSCLT/S/ 540	40	60			100

## **FIRST SEMESTER**

### **BSCLT/S/ 110 BASICS OF HUMAN ANATOMY**

**Maximum Time : 3 Hrs.**

**Total Marks : 100**

**Minimum Pass Marks : 40%**

**University Examination :60 %**

**Continuous Internal Assessment:40 %**

#### **A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

#### **B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

#### **COURSE CONTENTS**

Skeleton Structures of Bone, Vertebral Column, Upper Extremity, Lower Extremity, superior extremity, inferior extremity, ossification centers, bone of upper limb, radius and ulna, surface marker of thorax abdomen, head and neck.

### **BSCLT/S/ 110 P BASICS OF HUMAN ANATOMY**

The laboratory course will comprise of exercises on what is learnt in the theory classes of the same course i.e. BMLT 110.

**BMLT -120**

**BASICS OF MEDICAL PHYSIOLOGY**

**Maximum Time : 3 Hrs.**

**Total Marks : 100**

**Minimum Pass Marks : 40%**

**University Examination :60 %**

**Continuous Internal Assessment:40 %**

**A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

**B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

**COURSE CONTENTS**

General information:- The cell, membrane potential, some common terms used in physiology.

Blood:- Red blood corpuscles, hemoglobin, the leucocytes, immunity, origin and function of lymphocytes, reticulate endothelial system, the platelets, homeostasis, coagulation of blood, the plasma proteins, blood groups.

Digestive system:- introduction to digestive system. Elementary functional anatomical considerations, the salivary glands, the stomach and its secretion, pancreas, the bile, the small intestine, movement of the alimentary tract, gastrointestinal hormones, apud cells.

Respiratory system:- Functional anatomy, ventilation, control of ventilation, exchange of gases between the alveoli and pulmonary capillary blood, carriage of  $O_2$  and  $CO_2$  by the blood and their exchange at the tissue level, applied and environment physiology Defense mechanism. Changes with age.

**BMLT -120      BASICS OF MEDICAL PHYSIOLOGY**

The laboratory course will comprise of exercises on what is learnt in the theory classes of the same course i.e. BMLT 120.

## **BSCLT/S/ 130 PATHOLOGY**

**Maximum Time : 3 Hrs.**

**Total Marks : 100**

**Minimum Pass Marks : 40%**

**University Examination :60 %  
Continuous Internal Assessment:40 %**

### **A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

### **B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

### **COURSE CONTENTS**

The Cell in Health and Disease:- Introduction to Pathology, Cellular Structure and Metabolism, Etiology and Pathogenesis of Disease, Intracellular Accumulations and Disorders of Metabolism, Amyloidosis, Degenerations and Cell Death.

Inflammation and Healing, Immunity and Hypersensitivity, Infection and infestation:- Inflammation-Acute and Chronic, Granulomatous Inflammation, Healing, immunity and Hypersensitivity, Infection and Infestation.

Fluid and Haemodynamic Derangements:- Derangements of Body Fluids and Electrolytes, Haemodynamic Disorders due to Deranged Blood Volume, Haemodynamic Disorders of Obstructive Nature, Ischaemia and Infarction.

Growth Disorders and Neoplasia:- Adaptive Disorders of Growth, General Aspects of Neoplasia, Etiology and pathogenesis of Neoplasia, Clinical Aspects of Neoplasia, Common Specific Tumours.

## **BSCLT/S/ 130 PATHOLOGY**

The laboratory course will comprise of exercises on what is learnt in the theory classes of the same course i.e. BMLT 120.

## **BSCLT/S/ 140 COMPUTER SKILLS**

**Maximum Time : 3 Hrs.**

**Total Marks : 100**

**Minimum Pass Marks : 40%**

**University Examination :60 %  
Continuous Internal Assessment:40 %**

### **A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

### **B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

### **COURSE CONTENTS**

Hardware & Software: CPU, RAM, SSD, Operating Systems, System Softwares, Application Software. Inside Computers. Computer Systems.

Input-Output devices: Monitor, Keyboard, Mouse, System Unit, Printer, Scanner.

Storage devices : Floppy disk, Hard disk, Cartridge tape, CD-ROM

Printers : Dot-Matrix, Inkjet, Laserjet, Colour printer, High speed printer, Label printer, Plotters.

PROGRAMMING LANGUAGE:-Compiler, Assembly Language, Machine Language.

Graphical user interface : Windows 3x, Program manager, Main & accessories program groups, Multiasking.

## SECOND SEMESTER

### **BSCLT/S/ 210 COMMUNICATION SKILLS**

**Maximum Time : 3 Hrs.**

**Total Marks : 100**

**Minimum Pass Marks : 40%**

**University Examination :60 %**

**Continuous Internal Assessment:30 Marks**

#### **A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

#### **B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

#### **COURSE CONTENTS**

Basic Skills: - Listening, Speaking, Reading and Writing.

Comprehension: - Reading Comprehension, Passages, Poems.

Listening Comprehension: - Talks, Reports, Poems

Writing Skills: - Paragraph Writing, Composition Writing, Report Writing, Application & Letter Writing

Grammar: - Simple, Compound and complex sentences, Co-ordinate clause (with, but or either-or, Neither-Nor otherwise or else), Subordinate clauses-noun clauses-as subjects object and complement: Relative Clauses (restrictive and non-restrictive clauses). Adverb clauses (open and hypothetical, Comparative Clauses

Simple present, progressive and present perfect, simple past, progressive and past perfect, indication of futurity, the passive (Sample present and past, present and past perfect and 'to' infinitive structure), Reported Speech: - (I) Declarative sentences, (ii) Imperatives (iii) Interrogatives –question, Yes/No Questions, Exclamation sentences, Modals (will, shall, should, would, ought to, have to/have got to, can, could, may-might and need), Verb structures (infinitives and gerundial)



**BSCLT/S/ 220 BASICS OF BIOCHEMISTRY**

**Maximum Time : 3 Hrs.**

**Total Marks : 100**

**Minimum Pass Marks : 40%**

**University Examination :60 %  
Continuous Internal Assessment:40 %**

**A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

**B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

**COURSE CONTENTS**

Basics of Biochemistry :- Definition of solutions , Methods Of Expressing Concentration ; Dilution Problems ; Specific Gravity .

**BSCLT/S/ 220 P BASICS OF BIOCHEMISTRY**

The laboratory course will comprise of exercises on what is learnt in the theory classes of the same course i.e. BMLT 220.

## **BSCLT/S/ 230 INTRODUCTION OF MICROBIOLOGY**

**Maximum Time : 3 Hrs.**

**Total Marks : 100**

**Minimum Pass Marks : 40%**

**University Examination :60 %**

**Continuous Internal Assessment:40 %**

### **A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

### **B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

### **COURSE CONTENTS**

Structure, characteristics & classification of bacteria, viruses, fungi and protozoa. The handling and control of microorganisms. Basic principles of medical microbiology and immunology.

## **BSCLT/S/ 230P INTRODUCTION OF MICROBIOLOGY**

The laboratory course will comprise of exercises on what is learnt in the theory classes of the same course i.e. BMLT 230.

**BSCLT/S/ 240 MS-OFFICE**

**Maximum Time : 3 Hrs.**

**Total Marks : 100**

**Minimum Pass Marks : 40%**

**University Examination :60 %  
Continuous Internal Assessment:40 %**

**A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

**B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

**COURSE CONTENTS**

MS Word : Creating documents, Formatting, Auto text, Auto correct, Tables, Page setup, Printing, Object linking & embedding, Spell check, Thesaurus, Mail merge, Word art, Clip art.  
setup.

MS Excel : Creating workbooks & worksheets, Formulas & functions, Linking workbooks & worksheets, Cell references, Formatting, Creating charts, Data lists, Page setup, Printing.

MS Power Point : Creating slides with different layouts and templates, Inserting charts, Tables, Organisation charts, Pictures, Running a screen show, Presentation

**SEMESTER-III**

**BSCLT/S/ 310 PARASITOLOGY**

**Maximum Time : 3 Hrs.**

**Total Marks : 100**

**Minimum Pass Marks : 40%**

**University Examination :60 %**

**Continuous Internal Assessment:40 %**

**A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

**B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

**COURSE CONTENTS**

PROTOZOA:-Classification ; Malarial parasite ; Eishmania ; Amoeba ; Giardia ; Trichomonas

**BSCLT/S/ 320 BACTERIOLOGY**

**Maximum Time : 3 Hrs.**

**Total Marks : 100**

**Minimum Pass Marks : 40%**

**University Examination :60 %  
Continuous Internal Assessment:40 %**

**A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

**B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

**COURSE CONTENTS**

Examination of specimen for microbiological investigations:- Examination of materials from sites normally sterile ; Examination of pus from Abscess and wounds .

**BSCLT/S/ 320 P BACTERIOLOGY**

The laboratory course will comprise of exercises on what is learnt in the theory classes of the same course i.e. BMLT 320.

**BMLT -330 BODY FLUIDS AND STOOL EXAMINATION**

**Maximum Time : 3 Hrs.**

**Total Marks : 100**

**Minimum Pass Marks : 40%**

**University Examination :60 %**

**Continuous Internal Assessment:40 %**

**A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

**B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

**COURSE CONTENTS**

Urine analysis :-Methods of collections, routine urine examination ,microscopic examination , evaluation of renal function tests.

BODY FLUIDS :- Collection of c.s; physical examination ; chemical examination ; cell count ; bacteriological examination ; differential diagnosis .

Stool examination:- Normal appearance and composition ; collection of specimen ; physical examination ; microscopic examination ; protozoa ; Helminthic ova

**BMLT -330 P BODY FLUIDS AND STOOL EXAMINATION**

The laboratory course will comprise of exercises on what is learnt in the theory classes of the same course i.e. BMLT 330.

**BSCLT/S/ 340 CLINICAL LAB**

In this lab session student will observe and test the sample of stool and urine for different diseases under the guidance of a supervisor.

## **FOURTH SEMESTER**

### **BSCLT/S/ 410 HISTOPATHOLOGY**

**Maximum Time : 3 Hrs.**

**Total Marks : 100**

**Minimum Pass Marks : 40%**

**University Examination :60 %**

**Continuous Internal Assessment:40 %**

#### **A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

#### **B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

#### **COURSE CONTENTS**

Histopathology techniques:-

Introduction : fixation of specimens before grossing ; grossing of specimens ; processing of tissue specimens ; Embedding of tissue specimen ; cutting of tissue specimen ; routine staining of procedures ; frozen sections .

#### **BSCLT/S/ 410 P HISTOPATHOLOGY**

The laboratory course will comprise of exercises on what is learnt in the theory classes of the same course i.e. BMLT 410.

**BSCLT/S/ 420 CYTOLOGY**

**Maximum Time : 3 Hrs.**

**Total Marks : 100**

**Minimum Pass Marks : 40%**

**University Examination :60 %  
Continuous Internal Assessment:40 %**

**A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

**B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

**COURSE CONTENTS**

Introduction ; Fine needle aspiration cytology ; Papanicolou method for cytologic smears .

**BSCLT/S/ 420 P CYTOLOGY**

The laboratory course will comprise of exercises on what is learnt in the theory classes of the same course i.e. BMLT 420.



**BSCLT/S/ 430 DIAGNOSTIC BLOOD SUGAR & CHOLESTEROL**

**Maximum Time : 3 Hrs.**

**Total Marks : 100**

**Minimum Pass Marks : 40%**

**University Examination :60 %**

**Continuous Internal Assessment:40 %**

**A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

**B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

**COURSE CONTENTS**

Estimation of blood sugar and cholesterol:-Estimation of blood sugar; Glucose Tolerance test ; estimation of serum cholesterol

**BSCLT/S/ 430 P          DIAGNOSTIC BLOOD SUGAR & CHOLESTEROL**

The laboratory course will comprise of exercises on what is learnt in the theory classes of the same course i.e. BMLT 430.

**BSCLT/S/ 440 BIOCHEMICAL TESTS**

**Maximum Time : 3 Hrs.**

**Total Marks : 100**

**%**

**Minimum Pass Marks : 40%**

**University Examination :60 %**

**Continuous Internal Assessment:40**

**A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

**B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

**COURSE CONTENTS**

Tests to Distinguish between aerobic and anaerobic breakdown of carbohydrate ;  
Fermentation reactions ; tests for specific breakdown products ; ability to use a  
specific substrate ; tests for specific breakdown products and amino acids ; tests for  
production of enzymes

## FIFTH SEMESTER

### **BSCLT/S/ 510 BLOOD BANKING & TRANSFUSION TECHNIQUE**

**Maximum Time : 3 Hrs.**

**Total Marks : 100**

**Minimum Pass Marks : 40%**

**University Examination :60 %**

**Continuous Internal Assessment:40 %**

#### **A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

#### **B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

#### **COURSE CONTENTS**

Basic principles in blood banking- Organization, planning and documentation.  
Introduction , organization and planning ; documentation .

Blood Groups:-Introduction ; ABO blood groups ; principle of ABO group determination; Technique of blood grouping , Rh Blood groups , Rh groups and Hemolytic Disease of the new born ; Technique of Rh Grouping .

Selection of donors and collection of blood:- Criteria for selecting donors ; collection of blood .

The compatibility test, coombs test ; frozen red blood cell ; platelets, Cryoprecipitate and Fibrinogen .

### **BSCLT/S/ 510 P BLOOD BANKING & TRANSFUSION TECHNIQUE**

The laboratory course will comprise of exercises on what is learnt in the theory classes of the same course i.e. BMLT 510.

**BSCLT/S/ 520 PROTEINS & CLINICAL ENZYMOLOGY**

**Maximum Time : 3 Hrs.**

**Total Marks : 100**

**Minimum Pass Marks : 40%**

**University Examination :60 %**

**Continuous Internal Assessment:40 %**

**A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

**B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

**COURSE CONTENTS**

Proteins estimation:-Estimation of total proteins ; Albumin and globulin

Clinical Enzymology-Common serum enzyme studies ; serum transaminase ; serum phosphate estimation ; serum amylase estimation ; serum lipase estimation

**BSCLT/S/ 520 P PROTEINS & CLINICAL ENZYMOLOGY**

The laboratory course will comprise of exercises on what is learnt in the theory classes of the same course i.e. BMLT 520.

**BSCLT/S/ 530 LIVER FUNCTION TESTS**

**Maximum Time : 3 Hrs.**

**Total Marks : 100**

**Minimum Pass Marks : 40%**

**University Examination :60 %  
Continuous Internal Assessment:40 %**

**A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

**B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

**COURSE CONTENTS**

Serum Bilirubin ; Serum protein estimation

**BSCLT/S/ 530 P LIVER FUNCTION TESTS**

The laboratory course will comprise of exercises on what is learnt in the theory classes of the same course i.e. BMLT 530.

**BSCLT/S/ 540 CLINICAL LAB**

In this lab session student will observe and test the sample of blood for different diseases under the guidance of a supervisor.

## **SIXTH SEMESTER**

### **BSCLT/S/ 610 SERUM ELECTROLYTES & IONS**

**Maximum Time : 3 Hrs.**

**Total Marks : 100**

**%**

**Minimum Pass Marks : 40%**

**University Examination :60 %**

**Continuous Internal Assessment:40**

#### **A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

#### **B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

#### **COURSE CONTENTS**

Determination of Sodium and Potassium ; Determination of serum chlorides ; Serum calcium estimation ; serum phosphorus estimation

### **BSCLT/S/ 610 P SERUM ELECTROLYTES & IONS**

The laboratory course will comprise of exercises on what is learnt in the theory classes of the same course i.e. BMLT 610.

**BSCLT/S/ 620 HAEMORRHAGIC DISORDERS**

**Maximum Time : 3 Hrs.**

**Total Marks : 100**

**Minimum Pass Marks : 40%**

**University Examination :60 %**

**Continuous Internal Assessment:40 %**

**A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

**B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

**COURSE CONTENTS**

Homeostasis ; Investigations in cases of Haemorrhagic Disorders

**BSCLT/S/ 620 P HAEMORRHAGIC DISORDERS**

The laboratory course will comprise of exercises on what is learnt in the theory classes of the same course i.e. BMLT 620.

**BSCLT/S/ 630 LEUKEMIA SYNDROMES****Maximum Time : 3 Hrs.****Total Marks : 100****Minimum Pass Marks : 40%****University Examination :60 %  
Continuous Internal Assessment:40 %****A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

**B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

**COURSE CONTENTS**

Definition and classification ; Cytochemistry of A.M.L , A.L.L ; C.M.L and C.L.L ; Myelodysplastic Syndrome ; Aleukaemic Leukemia ; Leukaemoid Reaction

**BSCLT/S/ 640 IMMUNOLOGY****Maximum Time : 3 Hrs.****Total Marks : 100****Minimum Pass Marks : 40%****University Examination :60 %  
Continuous Internal Assessment:40 %****A) Instructions for paper-setter**

1. The question paper will be divided into two parts. Part-I will contain subjective questions. This part will carry 60% of the total marks.
2. Part-II will comprise of 10-15 short questions, which will cover the entire syllabus and will carry 40% of the total marks.

**B) Instructions for the candidates**

1. Candidates are required to attempt Part-I as defined in the question paper and the entire part-II.
2. Use of non-programmable scientific calculator is allowed

**COURSE CONTENTS**

Basic Fundamental Techniques  
Introduction, Immunological Apparatus, Immunoglobulins, Mechanisms of Immunologic Tissue Injury, Mediators of Immunological Reactions, Histocompatibility Antigens Tissue Injury, Immunologic Laboratory Tests