Lesson plan

Faculty : Ms Nisha Rani
Discipline : MLT
Semester : 2nd
Subject : AP (Anatomy Physiology)
Lesson Plan Duration : from 15.01.2026 to 30.04.2026
Work Load (Lecture/Practical) per week (in hours): Lecture - 3 , Practical - 4

| week | Theory | | Practical | |
|---|---|---|---|---|
| | Lecture day | | Practical day | Topics |
| 1 | 1 | Introduction to CNS, Brain and its parts | 1 | Study of various parts of brain |
| | 2 | Brain and its parts | | |
| | 3 | Introduction to Spinal cord and its parts | | |
| 2 | 4 | Cranial nerves | 2 | Study of various parts of spinal cord |
| | 5 | Spinal nerves | | |
| | 6 | Structure and function of eye | | |
| 3 | 7 | Structure and function of ear | 3 | Demonstration of eye structure |
| | 8 | Structure and function of tongue and nose | | |
| | 9 | Revision | | |
| 4 | 10 | Test | 4 | Demonstration of ear structure |
| | 11 | Introduction of Circulatory system | | |
| | 12 | Composition and functions of blood | | |
| 5 | 13 | Anatomy and Physiology of Heart | 5 | Demonstration of structure of skeletal muscle |
| | 14 | Circulation of blood | | |
| | 15 | Cardiac Cycle | | |
| 6 | 16 | Conducting system of heart | 6 | Demonstration of structure of smooth muscle |
| | 17 | The blood Pressure | | |
| | 18 | Arteries | | |
| 7 | 19 | Veins | 7 | Demonstration of structure of cardiac muscle |
| | 20 | Lymph and lymphatic System | | |
| | 21 | Revision | | |
| 8 | 22 | Test | 8 | Demonstration of structure of heart |
| | 23 | Introduction to Endocrine System | | |

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| | 24 | Description of each endocrine gland | | |
| 9 | 25 | Endocrine gland its secretions | 9 | Examination of stained blood film for blood cells |
| | 26 | Endocrine gland their effect on the body | | |
| | 27 | Revision | | |
| 10 | 28 | Test | 10 | Estimation of blood pressure |
| | 29 | Introduction to Excretory system | | |
| | 30 | Organs of excretion kidneys | | |
| 11 | 31 | Organs of excretion ureter | 11 | Demonstration of Radial pulse examination |
| | 32 | Organs of excretion bladder | | |
| | 33 | Formation of urine | | |
| 12 | 34 | Urine composition | 12 | Demonstration of male reproductive system |
| | 35 | Structure of nephron | | |
| | 36 | Revision | | |
| 13 | 37 | Test | 13 | Demonstration of female reproductive system |
| | 38 | Introduction to Reproductive System | | |
| | 39 | Reproductive System: Male | | |
| 14 | 40 | Reproductive System: Female | 14 | Demonstration of excretory system |
| | 41 | The ovarian cycle , | | |
| | 42 | Ovulation | | |
| 15 | 43 | Revision | 15 | Structure of Kidney |
| | 44 | Test | | |
| | 45 | Previous Question Paper solve | | |

Lesson plan

Faculty : Dr Ashwani Bhardwaj

Discipline : MLT

Semester : 2nd

Subject : ESDM

Lesson Plan Duration : from 15.01.202 6 to 30.04.2026

Work Load (Lecture/Practical) per week (in hours): Lecture - 02

| week | Theory | |
|---|---|---|
| | Lecture day | Topic (including assignment /test) |
| 1 | 1 | Basics of ecology, ecosystem- concept |
| | 2 | Rain water harvesting and deforestation – its effects and control measures |
| 2 | 3 | sustainable development, sources, |
| | 4 | advantages, disadvantages of renewable and non-renewable energy. |
| 3 | 5 | Air Pollution: source of air pollution. Effect of air pollution health, |
| | 6 | economy, air pollution control methods |
| 4 | 7 | Noise pollution: source of noise pollution, unit of noise, effect of noise pollution, |
| | 8 | acceptable noise level, different method of minizing noise pollution. |
| 5 | 9 | Revision |
| | 10 | Sessional Test 1 |
| 6 | 11 | Water Pollution: Impurities in water, Cause of water pollution, Source of water pollution |
| | 12 | Effect of water pollution on human health, Concept of DO, BOD, COD. Prevention of water pollution- Water treatment processes, Sewage treatment. Water quality standard. |
| 7 | 13 | Soil Pollution :Sources of soil pollution, Effects and Control of soil pollution |
| | 14 | Types of Solid waste- House hold, Industrial, Agricultural, Biomedical, Disposal of solid waste, Solid waste management E-waste, E-waste management |
| 8 | 15 | Global Warming, Green House Effect, Depletion of Ozone Layer, Acid Rain. |
| | 16 | Eco-friendly Material, Recycling of Material, Concept of Green Buildings. |
| 9 | 17 | Concept of Carbon Credit & Carbon footprint. |
| | 18 | Revision |
| 10 | 19 | Test |

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| | 20 | A. Different Types of Disaster: Natural Disaster: such as Flood, Cyclone, Earthquakes and Landslides etc |
| 11 | 21 | Man-made Disaster: such as Fire, Industrial Pollution, Nuclear Disaster, Biological Disasters, |
| | 22 | Accidents (Air, Sea Rail & Road), Structural failures(Building and Bridge) |
| 12 | 23 | War & Terrorism |
| | 24 | B. Disaster Preparedness: |
| 13 | 25 | Disaster Preparedness Plan |
| | 26 | Prediction, Early Warnings and Safety Measures of Disaster |
| 14 | 27 | Psychological response and Management (Trauma, Stress, Rumour and Panic) |
| | 28 | Revision |
| 15 | 29 | Test |
| | 30 | Previous Question Paper Solve |

Lesson plan

Faculty : Ms Munish
Discipline : MLT
Semester : 2nd Sem
Subject : BIOCHEMISTRY-II
Lesson Plan Duration : from 15.01.2026 to 30.04.2026
Work Load (Lecture/Practical) per week (in hours): 03 (Th) + 04(Pr)

| Week | Theory | | Practical | |
|---|---|---|---|---|
| | Lecture Day | Topic (Including assignment / test) | Practical Day | Topic |
| 1st | 1 | Introduction to biochemistry | 1 | Handling and maintenance of<br>1. Balance<br>2.centrifuge |
| | 2 | Definition and importance of biochemistry | | |
| | 3 | Volumetric apparatus their calibration | | |
| 2nd | 4 | Volumetric apparatus calibration | 2 | Handling and maintenance of<br>1. Colorimeter<br>2.Ion selective electrode |
| | 5 | Introduction about Blood and its fraction | | |
| | 6 | Separation of Serum/Plasma | | |
| 3rd | 7 | Different Protein Precipitating reagents | 3 | Handling and maintenance of<br>1. Glucometer<br>2. Deionizer |
| | 8 | Preparation of protein free filtrate (PFF) | | |
| | 9 | Collection and preservation of Blood | | |
| 4th | 10 | Revision of 1st unit | 4 | 1. Practical revision<br>2. Practical test |
| | 11 | Collection and preservation of Urine | | |
| | 12 | Collection and preservation of blood | | |
| 5th | 13 | Collection and preservation of Stool and other body fluids | 5 | Collection of blood by<br>1. Capillary puncture<br>2. Vein puncture include vacutainer system |
| | 14 | Collection and preservation of other body fluids | | |
| | 15 | Assignment 1st | | |
| 6th | 16 | Sessional test 1st | 6 | 1. Separation of Serum<br>2. Separation of Plasma |
| | 17 | Introduction to Blood glucose/sugar | | |
| | 18 | Glucose Screening test | | |
| 7th | 19 | Glucose tolerance test introduction | 7 | 1. Preparation of Protein Free Filtrate (PFF) |
| | 20 | Metabolism of Glucose | | |

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|---|---|---|---|---|
| | 21 | Principle of Glucose estimation | | 2. Preparation of reagents (stock and working) |
| 8th | 22 | Method of estimation | 8 | 1. Practical revision<br>2. Practical test |
| | 23 | Ref. Value and Renal threshold | | |
| | 24 | Introduction and performance of GTT | | |
| 9th | 25 | Clinical importance of blood sugar | 9 | 1. Estimation of Blood glucose by o-toludine method<br>2. Practical viva |
| | 26 | Revision of 3rd unit | | |
| | 27 | Introduction to Blood urea | | |
| 10th | 28 | Formation and excretion of urea | 10 | 1. Perform Glucose tolerance test using GOD-POD method<br>2. Urea estimatio |
| | 29 | Principle and Procedure of urea estimation | | |
| | 30 | Ref. Value and Clinical Importance | | |
| 11th | 31 | Revision 4th unit | 11 | 1. Creatinine estimation<br>2. Uric acid estimation |
| | 32 | Assignment 2nd | | |
| | 33 | Sessional test 2nd | | |
| 12th | 34 | Serum Proteins Introduction | 12 | 1. Plasma protein estimation<br>2. Serum protein estimation |
| | 35 | Procedure of Proteins estimation | | |
| | 36 | Procedure of serum protein estimation | | |
| 13th | 37 | Ref. Value & Clinical Importance | 13 | 1. Practical revision |
| | 38 | Revision | | |
| | 39 | Introduction to uricacid | | |
| 14th | 40 | Principle and Procedure of uric and estimation | 14 | 1. Practical viva |
| | 41 | Ref. Value & Clinical Imp | | |
| | 42 | Revision 5th unit | | |
| 15th | 43 | Sessional test 3rd | 15 | Revision |
| | 44 | Revision of all syllabus | | |
| | 45 | Revision by Previous year question papers | | |

Lesson plan

Faculty : Ms Munish
Discipline : DMLT
Semester : 2nd
Subject : Bacteriology
Lession Plan Duration : 15 weeks (from 15-01-2026 to 30-04-2026)
Workload(Lecture /practical) per week (in hours) = Lecture= 03, Practical=04

| Week | Theory | | Practical | |
|---|---|---|---|---|
| | Lecture day | Topics(inculdingassignment/test) | Practical Day | Topic |
| 1 | 1 | Introduction to Bacteriology and morphology | 1 | Collection of blood by capillary method. |
| | 2 | Staining techniques and biochemical test | | |
| | 3 | Morphology, cc,BT,pathogenicity, Lab diagnosis of Staphylocci | | |
| 2 | 4 | Morphology, cc,BT,pathogenicity, Lab diagnosis of streptococci | 2 | Collection of blood by vein puncture method |
| | 5 | Morphology, cc,BT,pathogenicity, Lab diagnosis of pneumococci | | |
| | 6 | Morphology, cc,BT,pathogenicity, Lab diagnosis of E.coli | | |
| 3 | 7 | Morphology, cc,BT,pathogenicity, Lab diagnosis of Salmoneela | 3 | Collection of STOOL |
| | 8 | Morphology, cc,BT,pathogenicity, Lab diagnosis of Shigella | | |
| | 9 | Revision of staphylocci, streptococci, pneumococci | | |
| 4 | 10 | Revision of E.coli, Salmonella, Shigella | 4 | Collection of URINE |
| | 11 | Introduction of pathogens,pathogenicity, infection | | |
| | 12 | Sources of infection | | |
| 5 | 13 | Mode of infection and types of infection | 5 | Collection of SPUTUM |
| | 14 | Assignment1 | | |
| | 15 | Test | | |
| 6 | 16 | Morphology, cc,BT,pathogenicity, Lab diagnosis of pseudomonas | 6 | Collection of THROAT SWABS |
| | 17 | Morphology, cc,BT,pathogenicity, Lab diagnosis of proteus | | |
| | 18 | Morphology, cc,BT,pathogenicity, Lab diagnosis of vibrio cholarea | | |
| 7 | 19 | Morphology, cc,BT,pathogenicity, Lab diagnosis of neissria | 7 | Collection of SKIN |
| | 20 | Morphology, cc,BT,pathogenicity, Lab diagnosis of T.pallidium | | |
| | 21 | Morphology, cc,BT,pathogenicity, Lab diagnosis of Myco bacterium TB and Laprae | | |
| 8 | 22 | Introduction to nosocomial ifcetion | 8 | Collection of CSF |
| | 23 | Common types of HAI and sources of HAI | | |
| | 24 | Prevention of HAI | | |
| 9 | 25 | Revision of unit 2nd | 9 | Collection of PUS AND PUS SWABS. |
| | 26 | Revision of 4th unit | | |
| | 27 | Assignment 2 | | |

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| 10 | 28 | Test | 10 | Collection of EYE & EAR SWABS |
| | 29 | Laboratory of Infectious diseases of septicemia | | |
| | 30 | Laboratory of Infectious diseases of bacteraemia | | |
| 11 | 31 | Laboratory of Infectious diseases of RTI | 11 | Test 1 |
| | 32 | Laboratory of Infectious diseases of wound infection | | |
| | 33 | Laboratory of Infectious diseases of UTI | | |
| 12 | 34 | Laboratory of Infectious diseases of Enteric fever | 12 | Preparation of CM and identify the pathogens |
| | 35 | Laboratory of Infectious diseases of Intestinal infection | | |
| | 36 | Laboratory of Infectious diseases of Meningtisis | | |
| 13 | 37 | Revision of Septicemia, RTI | 13 | Preparation of CM and identify the pathogens |
| | 38 | Revision of wound infection | | |
| | 39 | Revision of UTI | | |
| 14 | 40 | Revision of Typhoid fever, Meningtisis | 14 | Preparation of CM and identify the pathogens |
| | 41 | Revision of Intestinal infection | | |
| | 42 | Assignment 3/Test | | |
| 15 | 43 | Revision of $1^{st}$ &$2^{nd}$ Unit | 15 | TEST 2 |
| | 44 | Revision of $3^{rd}$ & $4^{th}$ Unit | | |
| | 45 | Revision of $5^{th}$ unit | | |

Lesson plan

Faculty : Mr Anoop Singh
Discipline : DMLT

Semester : 2nd

Subject : Applied Haematology

Lession Plan Duration: 15 weeks(from 15-01-2026 to 30-04-2026) Work load ( Lecture / practical ) per week ( in hours) = Lecture=3, Practical=6

| WORK | THEORY | | Practical | |
|---|---|---|---|---|
| | Lecture Day | Topic (Including assignment/test} | Practical Day | Topic |
| 1st | 1 | Introduction to Haemoglobinometry | G1 & G2 | L1 : Preparation of peripheral blood film<br>L2 : Preparation of Leishman stain<br>L3 : Preparation of Giemsa stain |
| | 2 | Formation of Haemoglobin | | |
| | 3 | Function of Hb | | |
| 2nd | 4 | Degradation of Hb | G1 & G2 | L4 : Preparation of thin smear<br>L5 : : Preparation of thick smear<br>L6 : Hb Estimation by Sahli's method |
| | 5 | Types of Hb | | |
| | 6 | Complexes of Hb | | |
| 3rd | 7 | Principles & procedure of Hb estimation by Sahli's Method | G1 & G2 | L7 : Hb Estimation by Oxy-haemoglobin method<br>L8 : Hb Estimation by cyanmethaemoglobin method<br>L9 :Counting of RBC by cell counter |
| | 8 | Specific reference & clinical significance Sahli's Method | | |
| | 9 | Principles & procedure of Hb estimation by cyanmethaemoglobin Method | | |
| 4th | 10 | Specific reference & clinical significance of cyanmethaemoglobin method | G1 & G2 | Revision |
| | 11 | Sessional-1 | | |
| | 12 | Assignment-1 | | |
| 5th | 13 | Introduction to Haemocytometry | G1 & G2 | Lab Test |
| | 14 | Introduction to Neubauer Chamber | | |
| | 15 | Introduction to Rosenthal counting Chamber | | |
| 6th | 16 | Introduction to Buerker counting Chamber | G1 & G2 | L10 : Counting of WBC by cell counter<br>L11 : Counting of Platelets by cell counter<br>L12 : Counting of RBC by Neubauer hamber |
| | 17 | Principles & procedure of RBC Counting | | |
| | 18 | Calculations, Reference values of RBC | | |

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| 7th | 19 | Principles & procedure of WBC counting | G1 & G2 | L13 : Counting of WBC by neubauer chamber<br>L14 : Counting of Platelets by neubauer chamber<br>L15 : Absolute eosinophil Counting |
| | 20 | Calculations, Reference values of WBC counting | | |
| | 21 | Principles & procedure of Platelets counting | | |
| 8th | 22 | Calculations, Reference values of Platelets counting | G1 & G2 | L16 : Study the morphology of normal RBC by Leishman stain<br>L17 : Study the morphology of normal WBC by Leishman stain<br>L18 : Study the morphology of normal RBC by Giemsa stain |
| | 23 | Errors involved in the Haemocytometry | | |
| | 24 | process to minimize errors involved in Haemocytometry | | |
| 9th | 25 | Clinical significance of RBC, WBC, Platelets counting | G1 & G2 | Revision |
| | 26 | Sessional-2 | | |
| | 27 | Assignment-2 | | |
| 10th | 28 | Introduction to differential Leucocytes | G1 & G2 | Lab Test |
| | 29 | Preparation of thin & thick film | | |
| | 30 | Staining of blood film by Leishman stain | | |
| 11th | 31 | Staining of blood film by Giemsa stain | G1 & G2 | L19 : Study the morphology of normal WBC by Giemsa stain<br>L20 : Study the morphology of abnormal RBC by Leishman stain<br>L21 : Study the morphology of abnormal RBC by Giemsa stain |
| | 32 | Staining of blood film by Field stain | | |
| | 33 | Calculation & performance of DLC | | |
| 12th | 34 | Normal Values & significance of DLC counting | G1 & G2 | L22 : Study the morphology of abnormal WBC by Leishman stain<br>L23 : Study the morphology of abnormal WBC by Giemsa stain<br>L24 : Study the morphology of normal Platelets by Leishman stain |
| | 35 | Sessional-3 | | |
| | 36 | Assignment-3 | | |
| 13th | 37 | Study the morphology of normal RBC&WBC | G1 & G2 | L25 : Study the morphology of normal Platelets by Giemsa stain<br>L26 : Study the morphology of normal RBC by Field stain<br>L27 : Study the morphology |
| | 38 | Study the morphology of abnormal RBC&WBC | | |
| | 39 | Study the morphology of normal & abnormal Platelets | | |

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| | | | | of normal WBC by Field stain |
| 14th | 40 | Introduction to Quality Assurance in Haematology | G1 & G2 | L28 : Study the morphology of normal Platelets by Field stain<br>L29 : Study the morphology of abnormal RBC by Field stain<br>L30 : Study the morphology of abnormal WBC by Field stain |
| | 41 | Accuracy & precision in Quality Assurance | | |
| | 42 | Various types of blood cell counters | | |
| 15th | 43 | Principle & operations of automated blood cell counter | G1 & G2 | Revision |
| | 44 | Principle & operation of coulter counter | | |
| | 45 | Assignment of unit 5th& 6th | | |

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| **Name of the Faculty : M** | | |
| **Discipline :** | | |
| **Semester :** | | |
| **Subject : Fundamental of Information Technology** | | |
| **Lesson Plan Duration : Jan** | | |
| **Work Load (Lecture/ Practical) per week (in h** | | |
| **Week** | **Theory** | |
| | **Lecture day** | |
| **1st** | **1** | UNIT I<br>Basics of Computer<br>Brief history of development of computers |
| | **2** | Definition of Computer, Block diagram of a Computer, Hardware, Software, |
| | **3** | Booting: Cold and Hot Booting, Interaction between the CPU and Memory with Input/Output devices, |
| **2nd** | **4** | Function of CPU and major functional parts of CPU. Memory, Bit, Nibble, Byte, KB, MB, GB, TB, PB, |
| | **5** | Functions of memory, Use of storage devices in a Computer, List types of memory used in a Computer, Importance of cache memory, CPU speed and CPU word |
| | **6** | Revision Unit I |
| **3rd** | **7** | Class Test |
| | **8** | Basic Internet Skills<br>Understanding browser, Introduction to WWW, efficient use of search engines, |
| | **9** | awareness about Digital India portals (state and national portals) and college portals. |
| **4th** | **10** | Advantages of Email, Various email service providers, Creation of email id, sending and receiving emails, attaching documents with email and drive. |
| | **11** | Effective use of Gmail, G-Drive, Google Calendar, Google Sites, Google Sheets, Online mode of communication using Google Meet & WebEx. |

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| | **12** | Revision Unit I |
| **5th** | **13** | Revision Unit II |
| | **14** | Discussion |
| | **15** | **1st sessional test** |
| **6th** | **16** | UNIT III<br>Basic Logic building<br>Introduction to Programming, Steps involved in problem |
| | **17** | Definition of Algorithm, Definition of Flowchart, |
| | **18** | Steps involved in algorithm development, differentiate algorithm and flowchart, |
| **7th** | **19** | symbols used in flowcharts, algorithms for simple problems, |
| | **20** | flowcharts for simple problems, Practice logic building using flowchart/algorithms |
| | **21** | Revision Unit III |
| **8th** | **22** | Office Tools<br>Office Tools like LibreOffice/OpenOffice/MSOffice. |
| | **23** | OpenOffice Writer – Typesetting Text and Basic Formatting, Inserting Images, |
| | **24** | Hyperlinks, Bookmarks, Tables and Table Properties in Writer |
| | **25** | Introducing LibreOffice/OpenOffice Calc, Working with Cells, Sheets, data, tables, using formulae and functions, using charts and graphics. |

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| 9th | **26** | OpenOffice Impress – Creating and Viewing Presentations, Inserting Pictures and Tables, Slide Master and Slide Design, Custom Animation. |
| | **27** | **2nd sessional test** |
| 10th | **28** | Class Test |
| | **29** | UNIT V<br>Use of Social Media<br>Introduction to Digital Marketing – Why Digital Marketing, |
| | **30** | Characteristics of Digital Marketing, Tools for Digital Marketing, , |
| 11th | **31** | Effective use of Social Media like LinkedIn, Google+, Facebook, Twitter, etc.: |
| | **32** | Features of Social media, Advantages and Disadvantages of Social Media. |
| | **33** | Revision Unit IV |
| 12th | **34** | Revision Unit IV |
| | **35** | Discussion |
| | **36** | Revision Unit V |
| 13th | **37** | Revision Unit V |
| | **38** | Revision Unit V |
| | **39** | **3rd sessional test** |
| 14th | **40** | Discussion |
| | **41** | Discussion |
| | **42** | Revision |
| 15th | **43** | Discussion on important question |
| | **44** | Discussion on previous question paper |
| | **45** | Revision |

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| **ls Yogita kapil** |
| **MLT** |
| **2nd** |
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| **2026 -April 2026** |
| **ours): 03 T + 4 P** |
| **Practical** |
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| Browser features, browsing, using various search engines, writing search queries |
| Read Wikipedia pages on computer hardware components, look at those components in lab, identify them, recognize various ports/interfaces and related cables, etc. |
| Connect various peripherals (printer, scanner, etc.) to computer, explore various features of peripheral and their device driver software |
| Explore features of Open Office tools and MS-Office, create documents, create presentation, create spread sheet, using these features, do it multiple times |

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| Working with Mobile Applications – Searching for Authentic Mobile app, Installation and Settings, Govt. of India Mobile Applications |
| Creating email id, sending and receiving mails with attachments |
| Using Google drive, Google calenda |
| Create Flow chart and Algorithm for the following<br>a. Addition of n numbers and display result |
| b. To convert temperature from Celsius to Fahrenheit |

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| c. To find Area and Perimeter of Square |
| Revision |
| Revision |
| Revision |
| Viva |
| Viva |

LessonPlan

NameoftheFaculty: Munish
Discipline: DMLT
Semester: 4th
Subject: AnalyticalClinicalBiochemistry
LessionPlanDuration:15weeks(from15-01-2026to30-04-2026)
Workload(Lecture/practical)perweek(nhours)=Lecture=3,Practical=4

| Week | Theory | | Practical | |
|---|---|---|---|---|
| | Lecture day | Topics(inculdingassignment/test) | Practical Day | Topic |
| 1 | 1 | Introductionabouturineanalysis | 1 | Analysisofurineforsugar |
| | 2 | Normalcompositionofurine | | |
| | 3 | Clinicalimportanceofurineanalysis | | |
| 2 | 4 | Qualitativeanalysisofproteinsinurine | 2 | AnalysisofurinreforProteins |
| | 5 | Qualitativeanalysisofsugarinurine | | |
| | 6 | Qualitativeanalysisofbilirubin | | |
| 3 | 7 | Blooddetectioninurine | 3 | Detectionofketonebodiesin urine |
| | 8 | Glycosuriaandalbuminuria | | |
| | 9 | Ketonebodiesdetectioninurine | | |
| 4 | 10 | Renalfunctiontestintroduction | 4 | Practicaltest-1 |
| | 11 | Ureaclearancetestprinciple&procedure | | |
| | 12 | Creatininetestprinciple&procedure | | |
| 5 | 13 | Clinicalsignificanceofrenalfunctiontest | 5 | Detectionofbilirubin |
| | 14 | Sessional1st | | |
| | 15 | Introductionaboutstoolchemistry | | |
| 6 | 16 | Physicalchercteristicsofstool | 6 | Detectionofurinarycreatinine |
| | 17 | Chemicalcompostionofstool | | |
| | 18 | Significanceofpresenceofbloodandexcess fat in stool | | |
| 7 | 19 | Occultbloodandexcessfatdetectionin | 7 | Ureaclearancetest |
| | 20 | Introduction,theoryofelectrophoresis | | |
| | 21 | principleofelectrophoresis | | |
| 8 | 22 | typesofelectrophoresis | 8 | Creatinineclearancetest |
| | 23 | Clinicalimportanceofelectrophoresis | | |
| | 24 | applicationsofelectrophoresis | | |
| 9 | 25 | Introductionandtheoryofchromatography | 9 | Practicaltest-2 |
| | 26 | Typesofchramatography | | |
| | 27 | Clinicalsiginficanceofchramatography | | |
| 10 | 28 | Applicationsofchramatography | 10 | Demonstrationofoccultblood test for stool specimen |
| | 29 | Sessional2nd | | |
| | 30 | Assignment1 | | |
| 11 | 31 | Introductionaboutthyroidfunctiontest | 11 | Fecalfatdetectiontest |
| | 32 | ClinicalimportanceofT3,T4,TSH | | |
| | 33 | Anti-thyroidperoxidasetest | | |
| 12 | 34 | freethyroidprofiletest(T3,T4andTSH) | 12 | Demenstration of |

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|---|---|---|---|---|
| | 35 | T3Principleandprocedue | | electrophoresis(pape r electrophoresis) |
| | 36 | T4estimation | | |
| 13 | 37 | TSHestimation | 13 | Demenstration of chromatography(paper chromatography) |
| | 38 | Introductionaboutautomationin | | |
| | 39 | Classificationsofautoanalyzers | | |
| 14 | 40 | Typesofautoanalyzers | 14 | Anti-Thyroidperoxidasetest |
| | 41 | assignment2 | | |
| | 42 | sessional3rd | | |
| 15 | 43 | revisionofMCQ | 15 | Thyroidprofiletest |
| | 44 | Revisionofallsyllabus | | |
| | 45 | Revisionofperviousyearquestionpapers | | |

LessonPlan

Faculty: Anoop Singh

Discipline : DMLT

Semester: :4th

Subject IMMUNOPATHOLOGYANDCYTOLOGY

Lession Plan Duration: 15 weeks(from 15-01-2026 to 30-04-2026)

Workload(Lecture/practical)perweek(nhours)=Lecture=03,Practical=08

| Week | Theory | | Practical | |
|---|---|---|---|---|
| | Lecture day | Topics(inculdingassignment/test) | Practical Day | Topic |
| 1 | 1 | Introductionaboutdifferenttypesofstains | 1 | Demonstrationofcryostat |
| | 2 | Principle,significanceandinterpretationofPAS (PeriodicAcidSchiff'sReagent) | | |
| | 3 | Silverimpergnationstain–Reticulinfibre | | |
| 2 | 4 | ZiehlNeelson's–forAFBandLeprae | 2 | Processingoftissueforfrozen section |
| | 5 | Masson'strichromestain | | |
| | 6 | OilRedO–fat | | |
| 3 | 7 | Gram'sstain–Gram+veandGram–ve | 3 | Stainingandmountingof frozensectionusingH&E stain |
| | 8 | DefinitionofDecalcification | | |
| | 9 | Processofdecalcification | | |
| 4 | 10 | Varioustypesofdecalcifyingmethods | 4 | To stain paraffin embedded sectionforthedemonstratio nof reticulin fibers by Silver |
| | 11 | Mechanismofdecalcifyingmethods | | |
| | 12 | advantage,disadvantageand applicationsofdecalcifyingmethods | | |
| 5 | 13 | Assessmentofdecalcification | 5 | To stain paraffin embedded sectionusingOilRed"O"stain. |
| | 14 | Aggignment-1 | | |
| | 15 | Test | | |
| 6 | 16 | Receptionandprocessingoffrozentissue | 6 | PreparationofKaiserling's solutionIandIIformuseum specimens. |
| | 17 | IntroductionandWorkingofFreezing microtome | | |
| | 18 | Advantagesanddis-advantagesoffreezing microtome | | |
| 7 | 19 | care,maintenanceoffreezingmicrotome | 7 | Preparation of various mountingreagentsformuseum specimens |
| | 20 | IntroductionandWorkingtocryostat | | |
| | 21 | Advantagesanddis-advantagesofcryostat | | |
| 8 | 22 | care,maintenanceofcryostat | 8 | ProcessingandLabelin gof various museum specimens |
| | 23 | Frozensectioncutting | | |
| | 24 | Staining<br>- RapidH&E<br>- Fatstain | | |
| 9 | 25 | Mountingoffrozensection | 9 | Demonstrationandcareof autopsy instruments |
| | 26 | Introductiontomuseumwithemphasison importanceofmuseum | | |
| | 27 | Reception,fixationandprocessingofvarious museumspecimens | | |
| 10 | 28 | Cataloguingofmuseumspecimen | 10 | Preparationofdrysmear and wet smear |
| | 29 | Introductiontoautopsytechnique | | |
| | 30 | Careandmaintenanceofautopsyarea,autopsy instruments, | | |

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|---|---|---|---|---|
| 11 | 31 | handlingofdeadbodiesandvarioususeof autopsy | 11 | ToperformPAPstain |
| | 32 | Aggignment-2 | | |
| | 33 | Test | | |

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|---|---|---|---|---|
| 12 | 34 | PrincipleofFNAC(FineNeedleAspiration Cytology) | 12 | Fixationofsmearsandstainin g with MGG |
| | 35 | ProcedureofFNAC,IndicationsofFNAC | | |
| | 36 | UsesofFNAC | | |
| 13 | 37 | Principle,Technique&InterpretationofPAS | 13 | ToperformHarmonalAssessm ent |
| | 38 | Principle,Technique&InterpretationofZeihl | | |
| | 39 | AdvancementsinCytology | | |
| 14 | 40 | AutomationinCytology,UseofCytospin | 14 | ToperformPASstainingmeth odof cytological sample. |
| | 41 | HarmonalAssessment,ImportanceofHCG | | |
| | 42 | UseofHarmonalAssessment(PregnancyTes t) | | |
| 15 | 43 | Assignment-3/Test | 15 | ToperformZNstainingmeth odof cytological sample. |
| | 44 | Revisionof1$^{st}$,2$^{nd}$and3$^{rd}$unit | | |
| | 45 | RevisionofWholesyllabus | | |

Lessonplan

Faculty :Nisha Rani

Displine: DMLT

Semester: :4th

Subject: :IMMUNOLOGYANDMYCOLOGY

Lession Plan Duration: 15 weeks(from15-01-2026 to 30-04-2026)

Workload(Lecture/practical)perweek(nhours)=Lecture=03,Practical=04

| Week | Theory | | Practical | |
|---|---|---|---|---|
| | Lecture day | Topics(inculdingassignment/test) | Practical Day | Topic |
| 1 | 1 | IntroductiontoMycology | 1 | PreparationofSabouraud's dextrose agar with andwithoutantibioti cs. |
| | 2 | Characteristicsofmedicallyimportantfungi | | |
| | 3 | classificationofmedicallyimportantfungi | | |
| 2 | 4 | Collection,processingofsampleforfungal infectioninSkin | 2 | PreparationofCornmealagar |
| | 5 | Collection,processingofsampleforfungal infectioninNail | | |
| | 6 | Collection,processingofsampleforfungal infectioninHair | | |
| 3 | 7 | KOHpreparation | 3 | PreparationofBHI |
| | 8 | LCB(Lactophenolcottonblue) | | |
| | 9 | Indiaink | | |
| 4 | 10 | IntroductionaboutFungalCulturemedia | 4 | Toperformwetmountusing KOH |
| | 11 | SDA(Sabouraud'sdextroseagar)withandwit hout antibiotics | | |
| | 12 | CMA(Commeal agar) | | |
| 5 | 13 | BHI(BrainHeartInfusion) | 5 | Toperformwetmountusing LCB . |
| | 14 | Assignment1 | | |
| | 15 | Test | | |
| 6 | 16 | IntroductionaboutFungalCultivation | 6 | Tostudycharacteristicsof commonlaboratoryfungal contaminants. |
| | 17 | CultivationofMedicalyimportantfungi-Candida | | |
| | 18 | Dermatophytes | | |
| 7 | 19 | LaboratoryContaminants-Penicillium, | 7 | Collectionandprocessing of samplesfordiagnosisoffu ngal infections in skin scrapings. |
| | 20 | Rhizopus, | | |
| | 21 | Mucor, | | |
| 8 | 22 | Aspergillus | 8 | Collectionandprocess ing ofsamplesfordiagnosi s of fungal infections in hair,nailscrapings. |
| | 23 | Antigen-AntibodyReactions | | |
| | 24 | Principleandapplicationsofagglutination | | |
| 9 | 25 | Principleandapplicationsofprecipitation | 9 | ToperformWidaltestby slide and tube method. |
| | 26 | Principleandapplicationsoffloccculationreac tions | | |
| | 27 | Assignment2 | | |
| 10 | 28 | Test | 10 | ToperformASOtitretest. |
| | 29 | Principle,techniquesofELISA(direct) | | |

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|---|---|---|---|---|
| | 30 | applicationofELISA(direct) | | |
| 11 | 31 | Principle,techniquesofELISA(indirect) | 11 | ToperformCRPtest. |
| | 32 | applicationofELISA(indirect) | | |
| | 33 | Principle,techniquesofWidal-Tubemethod method | | |

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|---|---|---|---|---|
| 12 | 34 | ApplicationofWidal-Tubemethod | 12 | ToperformRheumatoidfactortest |
| | 35 | Principle,techniquesofTitreslidemethod | | |
| | 36 | applicationofTitreslidemethod | | |
| 13 | 37 | AntistreptolysinO | 13 | ToperformVDRLTest. |
| | 38 | C-reactiveprotein | | |
| | 39 | VDRL | | |
| 14 | 40 | RPR | 14 | ToperformHIVScreeningtest. |
| | 41 | Rheumatoidfactor(RF) | | |
| | 42 | Assignment3/Test | | |
| 15 | 43 | Revisionof1$^{st}$&2$^{nd}$Unit | 15 | ToperformHBsAgScreeningtest. |
| | 44 | Revisionof3$^{rd}$&4$^{th}$Unit | | |
| | 45 | RevisionofWholesyllabus | | |

Lessonplan

Faculty : NishaRani
Discipline :DMLT
Semester :4th
Subject :Cl.HaematologyII
Duration: 15weeks(from15-01-2026to30-04-2026)
Workload(Lecture/practical)perweek(hours)=Lecture=3,Practica l=8

| WORK | THEORY | | Practical | |
|---|---|---|---|---|
| | LectureDay | Topic(Includingassignment/test} | Practical Day | Topic |
| 1st | 1 | Introductiontohaemostatis&processof haemostatis | L1 | Determinationofbleedingtimeby Ivy's method |
| | 2 | Introductiontobloodcoagulation | | |
| | 3 | Theoriesofbloodcoagulation | | |
| 2nd | 4 | Platelets&roleofplateletsinhaemostatis | L2 | Determinationofbleedingtimeby Dukes method |
| | 5 | Bleedingdisorders | | |
| | 6 | Bleedingdisorders&relateddiseases | | |
| 3rd | 7 | Principles&clinicalimportanceofprothrom bin time | L3 | Determinationofclottingtimeby Lee method |
| | 8 | Referencevalues&methodsofprothrom bin time | | |
| | 9 | Principles&clinicalimportanceofprothrom bin time index | | |
| 4th | 10 | Quantativemethodofprothrombintime index | L4 | Determinationofclottingtimeby white method |
| | 11 | Principles&clinicalimportanceof internationalnormalized ratio | | |
| | 12 | Referencevalues&methodsofinternational normalizedratio | | |
| 5th | 13 | Principles&clinicalimportanceofAPTT | L5 | DeterminationofProthrombintime |
| | 14 | Referencevalues&methodsofAPTT | | |
| | 15 | Principles&clinicalimportanceofThrom bin time | | |
| 6th | 16 | Referencevalues&methodsofThrombin time | L6 | DeterminationofProthrombintim e Index |
| | 17 | Principles&clinicalimportanceofbleedi ng time | | |
| | 18 | Referencevalues&methodsofbleedin g time | | |
| 7th | 19 | Principles&clinicalimportance,Reference values & methods of Hess test | L7 | Determinationofinternational normalized ratio |
| | 20 | Principles&clinicalimportanceofclottin g time | | |
| | 21 | Referencevalues&methodsofclottingtime | | |
| 8th | 22 | Principles&clinicalimportance,Reference values&methodsofBleedingtime | L8 | DeterminationofAPTT |
| | 23 | Assignmentofunit1st | | |
| | 24 | Test | | |
| 9th | 25 | IntroductiontoBonemarrow&composition of Bone marrow | L9 | DemonstrationofHesstest |

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|---|---|---|---|---|
| | 26 | FunctionofBonemarrow | | |
| | 27 | AspirationofBonemarrow | | |
| 10th | 28 | Preparationofbonemarrowsmear by different methods | L10 | Performanceofclotretractiontest |
| | 29 | Staining&examinationofbonemarrow smear | | |
| | 30 | M&Eratio | | |
| 11th | 31 | IronStainingprocedure | L11 | DemonstrationofLEcell |
| | 32 | Clinicalsignificanceofbonemarrow examination | | |
| | 33 | Assignment | | |
| 12th | 34 | Testunit2nd | L12 | CountingofRBC |
| | 35 | Introduction&definitionofLeukemia | | |
| | 36 | IntroductiontoFABclassificationof Leukemia | | |
| 13th | 37 | AcutemyeloblasticLeukemia | L13 | CountingofWBC&platelets |
| | 38 | AcutemyeloblasticLeukemia&acute promyelocyticLeukemia | | |
| | 39 | Acutemyelomonocyticleukemia | | |
| 14th | 40 | LabdiagnosisofLeukemia | L14 | Cellcountofsemen |
| | 41 | Phenomenon,demonstration,clinical significanceogLEcell | | |
| | 42 | IntroductiontoSemen&compositionofseme n | | |
| 15th | 43 | Morphologyofsperms&analysis of differenttypesofabnormalityinsemen | L15 | Morphologyofsperms |
| | 44 | Cellcountofpericardialfluid,peritonealfl uid & pleural fluid | | |
| | 45 | Cellcountofsynovialfluid,CSF&ser ous fluid | | |

**LessonPlan**

**Name of the Faculty :AnoopSingh**

**Discipline : MLT**

**Semester : 4th**

**Subject :MEDICAL LABORATORY MANAGEMENT**

**LessonPlanDuration:**15weeks(from15/01/2026 to 30/04/2026)

**WorkLoad(Lecture/Practical)perweek(inhours):3X1 hr= 3 hours**

| Week | Theory | |
|---|---|---|
| | **Lecture Day** | **Topic(includingassignment/test)** |
| 1st | **1** | Introductionabout MedicalLaboratoryManagement |
| | **2** | Roleofmedicallaboratorytechnologyintotalhealthcare |
| | **3** | Principlesofmanagement |
| | **4** | Revision |
| 2nd | **5** | Techniquesofplanning |
| | **6** | Physicalfacilities/equipments |
| | **7** | Layout anddesign |
| | **8** | Revision |
| 3rd | **9** | Laboratoryorganization |
| | **10** | Operation,Jobdescription,EvaluationandPerformance |
| | **11** | Layoutofclinical laboratories |
| | **12** | LayoutofBlood Bank |
| 4th | **13** | Revision |
| | **14** | **Sessional-1** |
| | **15** | Materialmanagement |
| | **16** | Procurement,Financialresources,ImportingandInventory |
| 5th | **17** | Controland analysis |
| | **18** | Inspection,Storage |
| | **19** | Revision |
| | **20** | Assignment-I |
| 6th | **21** | QualityAssurance- Analyticalcontrol |
| | **22** | InternalQualityAssuranceinclinicallaboratories |
| | **23** | ExternalQualityAssuranceinclinicallaboratories |
| | **24** | Precision,Accuracy,StandardDeviationaspernationalstandards |
| 7th | **25** | Revision |
| | **26** | SafetyPrecautions |
| | **27** | SafetyPrecautions-Safetymeasuresinmicrobiology,haematology laboratories |
| | **28** | Safetymeasuresinbiochemistry,histopathologyandcytology, |

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|---|---|---|
| | | transfusionmedicine |
| 8th | 29 | DisposalofBiomedicalwaste |
| | 30 | **Sessional-2** |
| | 31 | Assignment- II |
| | 32 | IntroductionaboutFirstAid inClinicalLaboratory |
| 9th | 33 | Acidburn/Alkaliburn |
| | 34 | Accidentaltrauma |
| | 35 | Gas/Toxicinhalation |
| | 36 | Spillage |
| 10th | 37 | Revision |
| | 38 | MedicalEthics |
| | 39 | MedicalEthicsandcodeofconduct-legalaspects |
| | 40 | Confidentialitymalpractice/negligence |
| 11th | 41 | Legalimplications |
| | 42 | Lawsuits |
| | 43 | Consumerprotectionand insuranceforprofessionalhealthhazards |
| | 44 | Revision |
| 12th | 45 | **Sessional-3** |
| | 46 | Introductionaboutlaboratoryequipment- CareandMaintenance |
| | 47 | Preventivemaintenanceandcareoflaboratoryequipment |
| | 48 | Preventivemaintenanceandcareofsome morelaboratoryequipment |
| 13th | 49 | Revision |
| | 50 | Assignment-III |
| | 51 | IntroductionaboutroleofComputer inLabservices |
| | 52 | Storageandretrievaloflaboratorydata manuallyandwithhelpof computers |
| 14th | 53 | UsesofcomputerinHealthcare. |
| | 54 | Revision |
| | 55 | Introductionaboutlaboratoryaccreditation |
| | 56 | Detaileddiscussionaboutlaboratoryaccreditation |
| 15th | 57 | Assignment-4 |
| | 58 | Problem'sDiscussionSession-Revision |
| | 59 | Revisionand discussiononpreviousyearquestionpapersofMLM |
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