Lesson Plan

### Name oftheFaculty :

### Discipline :MLT

**Semester :3rd**

**Subject : ES-I**

**Lesson Plan Duration : 15 Weeks (from July-2018 to November-2018) Work Load (Lecture/Practical) per week (n hours): Practical=02**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Week | Theory | | Practical | |
| Lecture  Day | Topic  (including assignment / test) | Practical  Day | Topic |
| 1st | 1st |  | 1st | Introduction to Employability Skills, various methods of communication. |
| 2nd |  |
| 3rd |  |
| 2nd | 4th |  | 2nd | Letters and their classification. |
| 5th |  |
| 6th |  |
| 3rd | 7th |  | 3rd | Types of Business Correspondence. |
| 8th |  |
| 9th |  |
| 4th | 10th |  | 4th | Resume and its layout. |
| 11th |  |
| 12th |  |
| 5th | 13th |  | 5th | Guidelines for effective cover letter writing. |
| 14th |  |
| 15th |  |
| 6th | 16th |  | 6th | Reports and its types. |
| 17th |  |
| 18th |  |
| 7th | 19th |  | 7th | Methods of Report Writing. Key features of report. |
| 20th |  |
| 21th |  |
| 8th | 22th |  | 8th | Different ways of giving advice and making comparison. |
| 23th |  |
| 24th |  |
| 9th | 25th |  | 9th | Concept of agreeing and disagreeing. |
| 26th |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 27th |  |  |  |
| 10th | 28th |  | 10th | Ways of taking turns in conversation. |
| 29th |  |
| 30th |  |
| 11th | 31th |  | 11th | Introduction to appointments and their cancelation. |
| 32th |  |
| 33th |  |
| 12th | 34th |  | 12th | Introduction to stress management. |
| 35th |  |
| 36th |  |
| 13th | 37th |  | 13th | Techniques of stress management. |
| 38th |  |
| 39th |  |
| 14th | 40th |  | 14th | Time management and its important. Negation and ways of conflict resolution. |
| 41th |  |
| 42th |  |
| 15th | 43th |  | 15th | Team work and leadership qualities. |
| 44th |  |
| 45th |  |

**Lesson Plan**

### Name of theFaculty : Sandeep Tanwar

### Discipline :MLT

**Semester :3rd**

**Subject :BIT**

**Lesson Plan Duration : July-2018 to Dec-2018**

|  |  |  |
| --- | --- | --- |
| **Week** | **Practical** | |
| **Lecture Day** | **Topic (including assignment / test): Demonstration about-** |
| **1st** | **1** | Identify and list functions of various components and peripherals of given computer. |
| **2** | Installation of operating system viz. Windows XP. |
| **2nd** | **3** | Installation of operating system viz. Windows 2007. |
| **4** | Installing a computer system by giving connection and loading the system software and  application software and various sources to install software |
| **3rd** | **5** | Exercises on entering text and data (Typing Practice) |
| **6** | Exercises on entering text and data (Typing Practice) |
| **4th** | **7** | **Features of Windows as an operating system:**   1. Start , shutdown andrestore 2. Creating and operating on theicons 3. Opening, closing and resizing thewindows |
| **8** | **Features of Windows as an operating system:**   1. Using elementary job commands like – creating, saving, modifying, renaming, finding and deleting a file , creating and operating on afolder 2. Introductiontoallpropertiessuchaschangingsettingslike,date,time,calculator, colour (back ground and foreground) 3. Using shortcuts |
| **5th** | **9** | **Word Processing (MS Office/Open Office)**   1. File Management: Opening, creating and saving a document, locating files, copying contents in some differentfile(s) 2. Editing adocument:  * Entering text, cut, copy, paste usingtoolbars * Use of spellcheck * PDF file and its conversion in different file formats (MS Word/Exceletc.) * Scanning, editing and printing of adocument |
| **10** | **Practical Test - I** |
| **6th** | **11** | **Word Processing (MS Office/Open Office)**  c) Formatting a document:   * Using different fonts, changing font size and colour, changing the appearance throughbold/italic/underlined,highlightingatext,changingcase,usingsubscript and superscript, using different underlinemethods * Aligning of text in a document, justification of document ,Inserting bulletsand numbering * Formatting paragraph, inserting page breaks and column breaks, lineSpacing * Use of headers, footers, inserting footnote, end note, use ofcomments * Inserting date, time, special symbols, importing graphic images, drawingtools |
| **12** | **Word Processing (MS Office/Open Office)**  d) Tables and Borders:   * Creating a table, formatting cells, use of different border styles, shading in tables, merging of cells, partition of cells, inserting and deleting a row in atable * How to change docx file to docfile * Print preview, zoom, page set up, printingoptions * Using Find, Replaceoptions |
| **7th** | **13** | **Spread Sheet Processing (MS Office/Open Office)**  a) Starting Excel : open worksheet, enter, edit data, formulae to calculate values, format data, create chart, printing chart, save worksheet, switching between different spread |

|  |  |  |
| --- | --- | --- |
|  |  | sheets |
| **14** | **Spread Sheet Processing (MS Office/Open Office)**  b) Menu commands: Create, format charts, organize, manage data, solving problem by analyzing data, creating graphs |
| **8th** | **15** | **Spread Sheet Processing (MS Office/Open Office)**  c) Work books:   * Managing workbooks (create, open, close, save, rename), working in workbooks * Editingaworksheet:copying,movingcells,pasting,inserting,deletingcells,rows, columns, find and replace text, numbers of cells, formattingworksheet |
| **16** | **Spread Sheet Processing (MS Office/Open Office)**  d) Creating a chart:   * Working with chart types, changing data in chart, formatting a chart, use chartto analyzedata * Using a list to organize data, sorting and filtering data inlist |
| **9th** | **17** | **Spread Sheet Processing (MS Office/Open Office)**  e) Formulas: Addition, subtraction, division, multiplication, percentage and auto sum |
| **18** | **Practical Test - II** |
| **10th** | **19** | **Power Point Presentation (MS Office/Open Office)**  a) Introduction to PowerPoint   * How to startPowerPoint * Working environment: concept of toolbars, slide layout, templatesetc. * Opening a new/existingpresentation * Different views for viewing slides in a presentation: normal, slide sorteretc. |
| **20** | **Power Point Presentation (MS Office/Open Office)**  b) Addition, deletion and saving of slides |
| **11th** | **21** | **Power Point Presentation (MS Office/Open Office)**  c) Insertion of multimedia elements   * Adding text boxes, importing pictures, tables and chartsetc. |
| **22** | **Power Point Presentation (MS Office/Open Office)**  d) Formatting slides   * Text formatting, changing slide layout, changing slide colourscheme * Changing background, Applying designtemplate |
| **12th** | **23** | **Power Point Presentation (MS Office/Open Office)**  e) How to view the slide show?   * Viewing the presentation using slide navigator, Slidetransition * Animation effectsetc. |
| **24** | **Antivirus**   1. What is virus and itstypes 2. Problems due tovirus |
| **13th** | **25** | **Antivirus**   1. Installationandupdationofantivirus(anyoneoutofKaspersky,Mcafee,Norton, Quickhealetc). 2. How to scan and remove thevirus |
| **26** | **Internet and its Applications**  a) Log-in to internet, introduction to search engine Browsing and down loading of information from internet |
| **14th** | **27** | **Internet and its Applications**  b) Creating e-Mail Account   * Log in to e-mail account and Log out from e-mailaccount |
| **28** | **Internet and its Applications**  c) Managing e-Mail   * Creating amessage * Sending, receiving and forwarding amessage * Attaching afile * Deleting amessage |
| **15th** | **29** | **Practical Test - III** |
| **30** | **Revision and Discussion** |

Lesson plan

Name of theFaculty :Ashwni Bhardwaj

Discipline : DMLT

Semester : 3rd

Subject : Histopathology andcytology

LessionPlanDuration: 15 weeks (from July, 2018 to Nov, 2018)

Work load (Lecture / practical ) per week ( n hours) = Lecture=3, Practical=6

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| WORK | THEORY | | Practical | |
| Lecture Day | Topic (Including assignment/test} | Practical  Day | Topic |
| 1st | 1 | Introduction and definition of: Histology, Histopathology  Biopsy, Autopsy, Autolysis, Putrefaction | L1 | Reception of specimen, labeling and preserving the specimen |
| 2 | Tissue Preparation method Unfixed Tissue preparations:  Imprint methods, Teased preparation |
| 3 | Unfixed Tissue preparations: Squashed preparation, Frozen section |
| 4 | Fixed Tissue preparations: Paraffin embedding,Celloidin embedding, Gelatin embedding |
| 2nd | 5 | Reception of Specimen: Reception, recording, labeling and preservation of histological specimen | L2 | Preparation of different fixatives with special emphasis on preparation of formaline based fixatives |
| 6 | Introduction about Fixation |
| 7 | Classification of fixatives: 1 Simple fixative |
| 8 | 2 Compound fixative |
| 3rd | 9 | Composition of various fixatives | L3 | Preparation of paraffin blocks from various tissue pieces and labeling with emphasis on orientation |
| 10 | Advantages and disadvantages of fixtaive |
| 11 | Introduction about Tissue Processing |
| 12 | Different steps of tissue processing: Dehydration Clearing/Dealcoholization |
| 4th | 13 | Infilteration and impregnation  Paraffin embedding | L4 | Handling of microtome |
| 14 | Introduction about automatic tissue processor |
| 15 | automatic tissue processor types |
| 16 | automatic tissue processor  working, care and maintenance |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| 5th | 17 | Test | L5 | Sharpening of microtome knives |
| 18 | Introduction about Microtomy and Microtome |
| 19 | Types of microtome(sliding,base sledge,  rocking) |
| 20 | Types of  microtome(rotary,freezing,cryostat,ultra) |
| 6th | 21 | Advantages and disadvantages of microtome | L6 | Preparation of blocks for fine cutting - Rough cutting - Trimming |
| 22 | care and maintenance of microtome |
| 23 | Microtome Knives(planoconcave,wedge,bioconcave,edge) |
| 24 | Sharpening of knives   * Honingtechnique * Stroppingtechnique |
| 7th | 25 | Automatic knife sharpener – uses, care and maintenance  - Uses of abrasives and lubricants | L7 | Practice of fine section cutting |
| 26 | Introduction to disposable blades - their advantages and disadvantages. |
| 27 | Section Cutting 1 Rough cutting  2 Fine cutting |
| 28 | Use of tissue floatation bath |
| 8th | 29 | Use of various adhesive media and lifting of  sections to the slide | L8 | Practice of lifting of sections on the slides |
| 30 | Errors /cutting faults in sections and their  remedies |
| 31 | Introduction about staining:  Principle and mechanism of routine stain |
| 32 | Various steps of staining ((Haematoxylin and Eosin)   * Deparaffinization * Hydration * NuclearStaining * Differentiation |
| 9th | 33 | * Blueing * Counterstaining * Dehydration * Clearing andMounting * Results | L9 | Performing H&E staining on sections and mounting of tissue sections |
| 34 | Use of automatic stainer and coverslipper |
| 35 | Assignment |
| 36 | Introduction about Mountants  Various types of mounting media 1 Aqueous mounting media |
| 10th | 37 | 2 Resinous mounting media  Advantages and Disadvantages mounting media | L10 | Demonstration of cell using buccal smear/urine sample |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 38 | Terms associated with staining (04 hrs) Solvents  Mordants |  |  |
| 39 | Metachromasia Accelerators |
| 40 | Progressive and regressive staining |
| 11th | 41 | Use of controls in staining and their significance | L11 | Processing of urine samples for malignant cells |
| 42 | Introduction about Cell (02 hrs) Defination and function of cell |
| 43 | Cell Structure and Multiplication(Mitosis and Meiosis ) |
| 44 | Assignment |
| 12th | 45 | Introduction about Exfoliative Cytology | L12 | Processing of sputum sample for malignant cytology |
| 46 | Preparation of vaginal & cervical smears |
| 47 | Urine Collection and Processing of specimen for cytology |
| 48 | Sputum Collection and Processing of specimen for cytology |
| 13th | 49 | CSF (Cerebro Spinal Fluid) Collection and  Processing of specimen for cytology | L13 | To perform PAP stain on given smear |
| 50 | Itroduction about Cytological Specimen Fixation |
| 51 | Various types of Cytological fixatives |
| 51 | Advantages and Disadvantages |
| 14th | 53 | Introduction about Cytological Staining | L14 | To perform MGG& H&E stain on given smear |
| 54 | Principle, Technique and interpretation of results in  - Papanicalaou staining |
| 55 | Principle, Technique and interpretation of results in  - May Grunwald & Giemsa staining |
| 56 | Principle, Technique and interpretation of results in  - Haematoxylin and Eosin staining |
| 15th | 57 | Role of Laminar airflow in cytology | L15 | To demonstrate various automation by use of brochures, charts etc. |
| 58 | Role of cytotechnician in cytology |
| 59 | Assignmemt |
| 60 | Test |

# Lesson plan

Name oftheFaculty : Sumit Pannu Discipline : DMLT

Semester : 3rd

Subject : MicrobiologyIII

Lesson Plan Duration: 15 weeks (from July, 2018 to Nov,2018)

Work load (Lecture / practical ) per week ( n hours) = Lecture=3, Practical=4

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| WORK | THEORY | | Practical | |
| Lecture Day | Topic (Including assignment/test} | Practical  Day | Topic |
| 1st | 1 | Introduction to medical parasitology | L1 | Collection and routine stool examination for detection of intestinal parasites by Saline preparation |
| 2 | General characteristics, morphology of Protozoa |
| 3 | Classification of Protozoa |
| 2nd | 4 | General characteristics, morphology of Helminthes | L2 | Collection and routine stool examination for detection of intestinal parasites by Iodine preparation |
| 5 | classification of Helminthes |
| 6 | Collection, transportation, processing and preservation of blood sample for routine investigations |
| 3rd | 7 | Collection, transportation, processing and preservation of stool sample for routine investigations | L3 | Collection and routine stool examination for detection of intestinal parasites by Floatation method (saturated salt solution/zinc sulphate) |
| 8 | Introduction about Concentration  techniques |
| 9 | - Principle and application of  concentration techniques(floating techniques) |
| 4th | 10 | Simple floating technique | L4 | Collection and routine stool examination for detection of intestinal parasites by Centrifugation method (formal ether) |
| 11 | DCF technique |
| 12 | Sedimentation techniques( simple ) |
| 5th | 13 | Sedimentation techniques( formalin ether  ) | L5 | Identification of Tapeworm from preserved specimen/slides |
| 14 | Introduction about Giardia and Morphology ofGiardia |
| 15 | Life cycle and Lab diagnosis of Giardia |
| 6th | 16 | Morphlogy and Life cycle of Entamoeba  histolytica | L6 | Identification of Roundworm from preserved specimen/slides |
| 17 | Lab diagnosis of Entamoeba histolytica |
| 18 | Morphology and Life cycle of Ancylostoma |
| 7th | 19 | Life cycle and Lab diagnosis of  Ancylostoma | L7 | Identification of Hookworm from preserved specimen/slides |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 20 | Morphology of Ascaris lumbricoides |  |  |
| 21 | Life cycle and Lab diagnosis of Ascaris  lumbricoides |
| 8th | 22 | Assignment | L8 | Identification of Pinworm from preserved specimen/slides |
| 23 | Morphology and life cycle of . T solium, |
| 24 | Lab diagnosis T solium, |
| 9th | 25 | Morphology and life cycle of T saginata | L9 | Identification of Trichamonasvaginilis from preserved specimen/slides |
| 26 | Lab diagnosis T saginata |
| 27 | Introduction about Malarial Parasite |
| 10th | 28 | Morphology of P. Vivax | L10 | Preparation of stains (Leishman, Giemsa, Field) |
| 29 | Life cycle of P. Vivax |
| 30 | Lab diagnosis of P. Vivax |
| 11th | 31 | Morphology of P. Falciparum | L11 | Preparation of thin and thick smears |
| 32 | Life cycle of P. Falciparum |
| 33 | Lab diagnosis of P. Falciparum |
| 12th | 34 | Assignment | L12 | Staining of smears by Leishman, Giemsa, Field |
| 35 | Introduction about Virology |
| 36 | General Characteristics of virus |
| 13th | 37 | Structure of viruses. | L13 | Examination of smears for malarial parasite (P. vivax) |
| 38 | Classification of virus |
| 39 | Lab diagnosis and prevention of –   * Rabies * Polio |
| 14th | 40 | Lab diagnosis and prevention of – HIV  , HBV (Hepatitis ‘B’ virus) | L14 | Examination of smears for malarial parasite( P. falciparum) |
| 41 | Introduction about Virological Samples   * Collection of VirologicalSamples * Transportation * Storage |
| 42 | Transportation of virological samples |
| 15th | 43 | Storage of virological samples | L15 | Demonstration of various stages of malarial parasite from stained slides |
| 44 | Assignment |
| 45 | Test |

# Lesson plan

Name oftheFaculty: Anoop Singh Discipline : DMLT

Semester : 3rd

Subject : HaematologyIII

LessionPlanDuration: 15 weeks (from July, 2018 to Nov,2018)

Work load ( Lecture / practical ) per week ( 9 hours) = Lecture=3, Practical=6

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| WORK | THEORY | | Practical | |
| Lecture Day | Topic (Including assignment/test} | Practical  Day | Topic |
| 1st | 1 | . Introduction to Erythrocyte  sedimentation rate (ESR | L1 | ESR estimations by wintrobe method in blood sample |
| 2 | Westergren’s method of ESR estimation |
| 3 | Wintrob’s method of ESR estimation |
| 2nd | 4 | Introduction to packed cell volume  (PCV) | L2 | ESR estimations by westergren method in blood sample |
| 5 | Macrohaematocrite method of PCV  estimation |
| 6 | Microhaematocrite method of PCV  estimation |
| 3rd | 7 | Merits and Demerits of ESR & PCV  estimation | L3 | Determination of PCV in blood by Macro Methods |
| 8 | Factors involved in ESR& Interpretation of results |
| 9 | Clinical Significance of ESR &PCV estimation |
| 4th | 10 | Assignment | L4 | Determination of PCV in blood Micro Methods |
| 11 | Test |
| 12 | Introduction to Red Cell Indicies |
| 5th | 13 | Definition, reference range of MCV | L5 | Counting of Reticulocyte in blood |
| 14 | Calculation and interpretation of MCV |
| 15 | Definition, reference range of MCH |
| 6th | 16 | Calculation and interpretation of MCH | L6 | To perform red cell fragility test on blood by osmotic fragility method |
| 17 | Definition, reference range of MCHC |
| 18 | Calculation and interpretation of MCHC |
| 7th | 19 | Assignment | L7 | To perform red cell fragility test on blood by mechanical fragility method |
| 20 | Introduction to Supravital stain and  reticulocyte counting |
| 21 | Principle and procedure of staining  reticulocytes |
| 8th | 22 | Calculation,Reference values and interpretation of Reticulocytes count | L8 | To perform Sickling test on blood by solubility test |
| 23 | Physiological Values of Hb |
| 24 | Physiological Values of PCV |
| 9th | 25 | Physiological Values of TLC | L9 | To perform Sickling test on blood by peripheral blood film |
| 26 | Physiological Values of Platelet count |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 27 | Definition& Symptoms of Anaemias |  |  |
| 10th | 28 | Introduction to aetiological classification of  Anaemia | L10 | Estimation of foetalhaemoglobin by alkali denaturation test |
| 29 | Introduction to morphological classification  of Anaemia |
| 30 | Haemorrhagic&Dyshaemorrhagicanaemia  in detail |
| 11th | 31 | Microcytic anemia & Megaloblastic anemia | L11 | Estimation of plasma haemoglobin by Sahli’s method |
| 32 | HaemolyticAnaemia in Detail |
| 33 | Aplastic anemia in Detail |
| 12th | 34 | Laboratory diagnosis of:Iron deficiency anaemia | L12 | Estimation of plasma haemoglobin by Cyanmethemoglobin method |
| 35 | Laboratory diagnosis of Megaloblastic  anaemia |
| 36 | Laboratory diagnosis ofHaemolytic  anaemias |
| 13th | 37 | Laboratory diagnosis of sickle cell  anaemia&thallasseamia | L13 | Estimation of plasma haemoglobin by Oxyhemoglobin method |
| 38 | Laboratory diagnosis ofAplastic  anaemia |
| 39 | Assignment |
| 14th | 40 | Test | L14 | Estimation of plasma haemoglobin by Alkaline hematin method |
| 41 | Introduction to Red cell fragility |
| 42 | Mechanical erythrocyte fragility test |
| 15th | 43 | Osmotic erythrocyte fragility test | L15 | Estimation of and G6PD by Methylene Blue Reduction Test |
| 44 | Interpretation & Significance of Red Cell  Fragility |
| 45 | Assignment |

# Lesson plan

Name oftheFaculty:Ashwni Bhardwaj

Discipline : DMLT

Semester : 3rd

Subject : TM

LessionPlanDuration: 15 weeks (from July, 2018 to Nov,2018)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| WORK | THEORY | | Practical | |
| Lecture Day | Topic (Including assignment/test} | Practical  Day | Topic |
| 1st | 1 | Historical introduction to Transfusion  medicine (blood banking | L1 | Performing ABO blood grouping by Slide & Tube Test |
| 2 | Definition of antigen and antibody |
| 3 | Classification of antigens |
| 2nd | 4 | Classification ofantibodies. | L2 | Performing-Rh grouping by Slide & Tube technique |
| 5 | Introduction to ABO blood grouping |
| 6 | Antigens and antibodies involved in  ABO blood grouping |
| 3rd | 7 | Principle and procedure of ABO blood  grouping Slide method | L3 | Performance of Coombs Test by Direct method |
| 8 | Principle and procedure of ABO blood  grouping Tube method |
| 9 | Various blood sub groups ( A1,A2, A1B,  A2B) |
| 4th | 10 | Assignment | L4 | Performance of Coombs Test by Indirect method |
| 11 | Introduction to Rh Blood Group System |
| 12 | Antigen and antibody involved in Rh  blood grouping |
| 5th | 13 | Principle and procedure of Rh grouping | L5 | Cross Matching (compatibility testing) by Major testing |
| 14 | Variant of D antigen |
| 15 | Types and composition of various anticoagulants |
| 6th | 16 | Advantages and disadvantages of various anticoagulants | L6 | Cross Matching (compatibility testing) by Minor testing |
| 17 | Criteria for selection of Donor |
| 18 | Screening of blood donor for Blood  Collection and storage |
| 7th | 19 | Characteristics of ideal blood donor. | L7 | Preparation of anticoagulants – ACD (Acid Citrate Dextrose) –  CPD ( Citrate Phosphate Dextrose) - CPDA (Citrate Phosphate Dextrose Adenine) |
| 20 | Blood collection procedure |
| 21 | Transportation and storage |
| 8th | 22 | Screening of blood donors for MP | L8 | Malarial Parasite test by Thick smear preparation |
| 23 | Staining of blood film for MP |
| 24 | Slide test for VDRL |
| 9th | 25 | VDRL Buffer Saline test | L9 | Malarial Parasite test by Thin smear preparation |
| 26 | ELISA based HIV test |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 27 | Western Blot test for HIV |  |  |
| 10th | 28 | Screening of blood donors for HbsAg&  HCV | L10 | VDRL Test |
| 29 | Assignment |
| 30 | Introduction to Cross Matching |
| 11th | 31 | Major Cross Matching | L11 | HIV Test |
| 32 | Minor Cross Matching |
| 33 | Saline method for cross matching |
| 12th | 34 | Albumin& Albumin globulin test method  for cross matching | L12 | HbsAg Test |
| 35 | Assignment |
| 36 | Introduction to Coombs Test |
| 13th | 37 | Principle, procedure of Indirect coombs  test | L13 | HCV Test |
| 38 | Importance and application of Indirect  coombs test |
| 39 | Principle, procedure of Direct coombs  test |
| 14th | 40 | Importance and application of Direct  coombs test | L14 | Preparation of platelet rich plasma |
| 41 | Preparation,Preservation&Uses of Packed cells |
| 42 | Preparation,Preservation&Uses of Fresh frozen plasma |
| 15th | 43 | Preparation,Preservation&Uses of  Cryoprecipitate &PRP | L15 | Preparation of platelet poor plasma |
| 44 | Immediate Immune mediated Transfusion  Reaction |
| 45 | Delayed Immune mediated Transfusion  Reaction |

**Lesson Plan**

## Name oftheFaculty: Anoop Singh

## Discipline: MLT

Semester: 3rd

Subject: CB (CLINICAL BIOCHEMISTRY -III)

Lesson Plan Duration: 15 WEEKS

Work Load (Lecture/Practical) per week (in hours): 3+4

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| week | Theory | | Practical | |
| Lecture  day | Topics (including assignment/test) | Practical  day | Topics |
| 1 | 1 | Serum Bilirubin-Formation and excretion  of bilirubin | 1 | Serum bilirubin estimation |
| 2 | Formation of bile pigments |
| 3 | Conjugated and unconjugated bilirubin |
| 2 | 4 | Principle and procedure of direct bilirubin  estimation | 2 | Phosphorus estimation |
| 5 | Principle and procedure of indirect  bilirubin estimation |
| 6 | Reference values & Clinical importance |
| 3 | 7 | Assignment -1 | 3 | Calcium estimation |
| 8 | SGOT and SGPT (AST and ALT)  introduction |
| 9 | Principle and procedure of estimation  SGOT |
| 4 | 10 | Principle and procedure of estimation  SGPT | 4 | Renal clearance tests |
| 11 | Reference values & Clinical importance |
| 12 | Assignment-2 |
| 5 | 13 | ALP and ACP introduction | 5 | SGOT estimation |
| 14 | Principle and procedure of estimation  ALP |
| 15 | Principle and procedure of estimation  ACP |
| 6 | 16 | Reference values & Clinical importance | 6 | SGPT estimation |
| 17 | Assignment -3 |
| 18 | Test 1,2,3 unit |
| 7 | 19 | Serum Amylase introduction | 7 | ALP estimation |
| 20 | Principle and procedure of estimation |
| 21 | Reference values & Clinical importance |
| 8 | 22 | Assignment - 4 | 8 | ACP estimation |
| 23 | Serum calcium and phosphorus  introduction |
| 24 | Principle and procedure of estimation for  Serum calcium |
| 9 | 25 | Principle and procedure of estimation  forSerumphosphorus | 9 | Total cholesterol estimation |
| 26 | Reference values & Clinical importance |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 27 | Assignment - 5 |  |  |
| 10 | 28 | Lipid profile introduction, formation of  cholesterol | 10 | Triglyceride estimation |
| 29 | HD and LD cholesterol |
| 30 | Principle and procedure for cholesterol  estimation |
| 11 | 31 | Ref. value and clinical importance | 11 | Estimation of HDL and calculation of VLDL and LDL |
|  | 32 | Triglycerides, principle and procedure for  estimation |
| 33 | Importance of various ratios of HDL,  LDL and VLDL |
| 12 | 34 | Test 4,5,6 | 12 | Urinary protein estimation |
| 35 | Urinary proteins and creatinine  introduction |
| 36 | 24hr. urinary proteins estimation |
| 13 | 37 | 24hr. urinary creatinine estimation | 13 | Urinary creatinine estimation |
| 38 | Ref. values and clinical significance |
| 39 | Assignment - 6 |
| 14 | 40 | Renal function test introduction | 14 | Estimation of serum amylase |
| 41 | Urea clearance test |
| 42 | Creatine clearance test |
| 15 | 43 | Clinical significance | 15 | LDL estimation |
| 44 | Test 7,8 |
| 45 | Viva voice |