Lesson Plan

Name of the Faculty : Kavita

Discipline : Medical Lab Technology

Year : Second Year

Subject : Histopathology and Cytology- 1

Lesson Plan : 17 weeks

Work load (lecture/practical) per week (in hours) : Lectures-03, Practical-06

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Week | Theory | | | | Practical | | |
|  | | Lecture Day |  | Topic (including assignment + test) | | Practical Day (3 hours each day \* 2 days in week) | Topic |
| 1 | | 1st |  | Introduction and definations of: histology, histopathology, biopsy, autopsy, autolysis and putrefaction | | 1st | Reception of specimen, labeling and preserving the specimen G1 |
| 2nd |  | Prepartion of tissue;  Unifixed tissue preparation | |
| 3rd |  | Prepartion of tissue:  Fixed tissue preparation | | 2nd | Reception of specimen, labeling and preserving the specimen G2 |
| 2 | | 4th |  | Reception of specimen | | 3rd | Preparation of various smears by unfixed methods G1 |
| 5th |  | Revision | | 4th | Preparation of various smears by unfixed methods G2 |
| 6th |  | Fixation ( histological specimens) classification of fixatives | |
| 3 | | 7th |  | Compostion of various fixatives | | 5th | Preparation of different fixatives with special emphasis on preparation of formaline based fixatives G1 |
| 8th |  | Disadvantage and advantages | |
| 9th |  | Revision | | 6th | Preparation of different fixatives with special emphasis on preparation of formaline based fixatives G2 |
| 4 | | 10th |  | Processing ( by paraffin taechnique) dehaydration, clearing | | 7th | Preparation of paraffin blocks from various tissue pieces and labelling with emphasis on orientation G1 |
| 11th |  | Infilteration and impregnation, paraffin embedding | |
| 12th |  | Automation: histonkinete ; its types, working, care and maintance | | 8th | Preparation of paraffin blocks from various tissue pieces and labelling with emphasis on orientation G2 |
| 5 | | 13th |  |  | | 9th | Handling of microtome and sharpening of microtome knives G1 |
| 14th |  | Continued | |
| 15th |  | Revision | | 10th | Handling of microtome and sharpening of microtome knives G2 |
| 6 | | 16th |  | Assignment | | 11th | Preparation of blocks for fine cutting G1 |
| 17th |  | Microtomy :  Microtome types, advantage and disadvantage, working principle, care maintenance | |
| 18th |  | Microtome knives; various types of knives and sharpening of knives | | 12th | Preparation of blocks for fine cutting G2 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 7 | 19th |  | Introduction to disposable blades- advantyages and disadvantages | 13th | Practice of fine section cutting and lifting of sections on the slides G1 |
| 20th |  | Section cutting | 14th | Practice of fine section cutting and lifting of sections on the slides G2 |
| 21th |  | Continued |
| 8 | 22th |  | Continued | 15th | Performing H& E attaining on sections and mounting of tissue sections G1 |
| 23th |  | Assingmnet |
| 24th |  | Theory of staining ( routine) | 16th | Performing H& E attaining on sections and mounting of tissue sections G2 |
| 9 | 25th |  | Principle of staining | 17th | Demonstrations of cell using buccal smear/ urine sample G1 |
| 26th |  | Steps of staining ( haematoxylin and eosin ) |
| 27th |  | Continued | 18th | Demonstrations of cell using buccal smear/ urine sample G2 |
| 10 | 28th |  | Automation: use of automatic stainer and coverslipper | 19th | Processing of urine samples for malignant cytologyG1 |
| 29th |  | Mountants |
| 30th |  | Continued | 20th | Processing of urine samples for malignant cytologyG2 |
| 11 | 31th |  | Various terms associated with staining | 21th | To perfrom PAP stain on given smear G1 |
| 32th |  | Continued |
| 33th |  | Continued | 22th | To perfrom PAP stain on given smear G2 |
| 12 | 34th |  | Revision |  |
| 35th |  | Cell: definition and function | 23th | To perform MGG stain on given smear G1 |
| 36th |  | Cell: structure and multiplication | 24th | To perform MGG stain on given smear G2 |
| 13 | 37th |  | Exfoliative cytology: introduction , preparation of vaginal and cervical smears | 25th | Viva-voce |
| 38th |  | Collection and processing of specimen for cytology: urine , sputum, CSF , other fluids | To perform H&E on given smear G1 |
| 39th |  | Revision | 26th | To perform H&E on given smear G2 |
| 14 | 40th |  | Fixation ( cytological specimen ) definition, various types of cytological fixatives | 27th | To demonstrate various automation by use of brochure, charts G1 |
| 41th |  | Disadvantage and advantage of fixation |
| 42th |  | Cytological staining: principle, technique and interpretation of results in- papanicalaou staining | 28th | To demonstrate various automation by use of brochure, charts G2 |
| 15 | 34th |  | May grunwald and giemsa staining | 29th | Viva-voce |
| 35th |  | Haematoxylin and eosin staining |
| 36th |  | Revision | 30th | Viva-voce |
| 16 | 37th |  | Role of laminar airflow and cytotechnician in cytology | 31th | Viva-voce |
| 38th |  | Continued |
| 39th |  | Revision | 32th | Viva-voce |
| 17 | 40th |  | Assignment | 33th | Revision |
| 41th |  | Revision |
| 42th |  | Revision | 34th | Viva-voce |

Lesson Plan

Name of the Faculty : Riya

Discipline : Medical Lab Technology

Year : Second Year

Subject : Clinical Biochemistry

Lesson Plan : 17 weeks

Work load (lecture/practical) per week (in hours) : Lectures-03, Practical-06

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Week | Theory | | | | Practical | | |
|  | | Lecture Day | Date | Topic (including assignment + test) | | Practical Day (3 hours each day \* 2 days in week) | Topic |
| 1 | | 1st |  | Serum Bilirubin-Formation of bile pigments | |  | Serum bilirubin estimation G1 |
| 2nd |  | Formation and excretion of bilirubin | |
| 3rd |  | Conjugated and unconjugated bilirubin | |  | Serum bilirubin estimation G2 |
| 2 | | 4th |  | Principle and procedures of serum bilirubin estimation (Direct & Indirect) | |  | Phosphorus estimation G1 |
| 5th |  | Reference values | |  | Phosphorus estimation G2 |
| 6th |  | Clinical significance | |  |
| 3 | | 7th |  |  | |  |  |
| 8th |  |  | |
| 9th |  |  | |  |  |
| 4 | | 10th |  |  | |  |  |
| 11th |  |  | |
| 12th |  |  | |  |  |
| 5 | | 13th |  |  | |  |  |
| 14th |  |  | |  |  |
| 15th |  |  | |  |  |
| 6 | | 16th |  |  | |  |  |
| 17th |  |  | |  |  |
| 18th |  |  | |  |  |
| 7 | | 19th |  |  | |  |  |
| 20th |  |  | |  |  |
| 21th |  |  | |  |  |
| 8 | | 22th |  |  | |  |  |
| 23th |  |  | |  |  |
| 24th |  |  | |  |  |
| 9 | | 25th |  |  | |  |  |
| 26th |  |  | |  |  |
| 27th |  |  | |  |  |
| 10 | | 28th |  |  | |  |  |
| 29th |  |  | |  |  |
| 30th |  |  | |  |  |
| 11 | | 31th |  |  | |  |  |
| 32th |  |  | |  |  |
| 33th |  |  | |  |  |
| 12 | | 34th |  |  | |  |  |
| 35th |  |  | |  |  |
| 36th |  |  | |  |  |
| 13 | | 37th |  |  | |  |  |
| 38th |  |  | |  |  |
| 39th |  |  | |  |  |
| 14 | | 40th |  |  | |  |  |
| 41th |  |  | |  |  |
| 42th |  |  | |  |  |
| 15 | | 43th |  |  | |  |  |
| 44th |  |  | |  |  |
| 45th |  |  | |  |  |
| 16 | | 46th |  |  | |  |  |
| 47th |  |  | |  |  |
| 48th |  |  | |  |  |
| 17 | | 49th |  |  | |  |  |
| 50th |  |  | |  |  |
| 51th |  |  | |  |  |

Lesson Plan

Name of the Faculty : Riya

Discipline : Medical Lab Technology

Year : Second Year

Subject : Clinical Biochemistry

Lesson Plan : 17 weeks

Work load (lecture/practical) per week (in hours) : Lectures-03, Practical-06

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Week | Theory | | | | Practical | | |
|  | | Lecture Day | Date | Topic (including assignment + test) | | Practical Day (3 hours each day \* 2 days in week) | Topic |
| 1 | | 1st |  | Serum Bilirubin-Formation of bile pigments | |  | Serum bilirubin estimation G1 |
| 2nd |  | Formation and excretion of bilirubin | |
| 3rd |  | Conjugated and unconjugated bilirubin | |  | Serum bilirubin estimation G2 |
| 2 | | 4th |  | Principle and procedures of serum bilirubin estimation (Direct & Indirect) | |  | Phosphorus estimation G1 |
| 5th |  | Reference values | |  | Phosphorus estimation G2 |
| 6th |  | Clinical significance | |  |
| 3 | | 7th |  |  | |  |  |
| 8th |  |  | |
| 9th |  |  | |  |  |
| 4 | | 10th |  |  | |  |  |
| 11th |  |  | |
| 12th |  |  | |  |  |
| 5 | | 13th |  |  | |  |  |
| 14th |  |  | |  |  |
| 15th |  |  | |  |  |
| 6 | | 16th |  |  | |  |  |
| 17th |  |  | |  |  |
| 18th |  |  | |  |  |
| 7 | | 19th |  |  | |  |  |
| 20th |  |  | |  |  |
| 21th |  |  | |  |  |
| 8 | | 22th |  |  | |  |  |
| 23th |  |  | |  |  |
| 24th |  |  | |  |  |
| 9 | | 25th |  |  | |  |  |
| 26th |  |  | |  |  |
| 27th |  |  | |  |  |
| 10 | | 28th |  |  | |  |  |
| 29th |  |  | |  |  |
| 30th |  |  | |  |  |
| 11 | | 31th |  |  | |  |  |
| 32th |  |  | |  |  |
| 33th |  |  | |  |  |
| 12 | | 34th |  |  | |  |  |
| 35th |  |  | |  |  |
| 36th |  |  | |  |  |
| 13 | | 37th |  |  | |  |  |
| 38th |  |  | |  |  |
| 39th |  |  | |  |  |
| 14 | | 40th |  |  | |  |  |
| 41th |  |  | |  |  |
| 42th |  |  | |  |  |
| 15 | | 43th |  |  | |  |  |
| 44th |  |  | |  |  |
| 45th |  |  | |  |  |
| 16 | | 46th |  |  | |  |  |
| 47th |  |  | |  |  |
| 48th |  |  | |  |  |
| 17 | | 49th |  |  | |  |  |
| 50th |  |  | |  |  |
| 51th |  |  | |  |  |