Elective learning experience in Block I
Biochemistry

Name of Block	Block I
Name of Elective	**1. Monoclonal gammopathy reported in the previous two years**
Location of hospital lab/research facility	Department of Biochemistry & Biochemistry section of Central Laboratory
Name of internal preceptor(s)	Dr Sajeevan K C
Name of external preceptor(s) if applicable	Nil
Learning objectives of electives	To understand 1. What is monoclonal gammopathy ? 2. Diagnostic criteria for Multiple Myeloma 3.Collect retrospective data of SPE for the diagnosis of MM 4. Role Serum Protein Electrophoresis (SPE) and Urine Protein Electrophoresis (UPE) in the diagnosis of multiple myeloma 5. Interpretation of Electrophoretogram- SPE & UPE
Number of students that can be accommodated in this elective	Two
Prerequisites for elective	1. Basic concepts of monoclonal gammopathy and multiple myeloma 2. Basic knowledge about Serum Protein Electrophoresis and Urine Protein Electrophoresis (UPE) 3. Clinical features and Management of MM
Learning resources for students	1. Harrison's Principles of Internal Medicine (20th or 21st edn) 2. Tietz text book of laboratory Medicine 3. Practical Clinical Biochemistry Harold Varley
List of activities of student participation	1.Discussion with preceptor 2. Collect retrospective data of SPE for the diagnosis of MM – enter in excel sheet – export to SPSS – Find out the prevalence of MM

	3.Observe and perform the procedure of Electrophoresis – SPE 4.Interpretation of electrophoretogram (SPE & UPE) (paste the images of two cases) 5..Presentation : An over view of Multiple Myeloma with results and discussion
Portfolio entries required	1.Documentation with reflective writing, 2.Recording of case/ cases of Multiple Myeloma (clinical features plus lab investigations) 3.Details about data collection and analysis
Log book entry required	1.Basic concepts of Multiple myeloma 2.Data – master sheet – Results
Assessment	Formative: 1.Attendance 2.Daily participation in departmental academic activity 3.Performance of assigned tasks (DOPS) related to SPE and UPE 4.Presentation of worked up case in department (mini CEX) 2 cases 5.360 degree assessment
Other comments	The learner is expected to spend at least 3 hours in Department /laboratory 75% attendance is mandatory for successful completion of the elective

Elective learning experience in Block I

Name of Block	Block I
Name of Elective	**2. Different types of jaundice in adults reported in the previous one month**
Location of hospital lab/research facility	Dept of Biochemistry & Biochemistry section of Central Laboratory
Name of internal preceptor(s)	Dr Lavanya Madhavan
Name of external preceptor(s) if applicable	

Learning objectives of electives	1. .Classification of Liver Function Tests in blood and Urine 2. Utility of LFT in diagnosing different types of Jaundice and other liver disorders 3.De Ritis ratio and A/G : Clinical application 4. Enter data (LFT) – classify jaundice based on the interpretation liver function tests into hepatic, obstructive and hemolytic – enter different variables of LFT in excel sheet – interpret the data and classify the jaundice - export to SPSS and find out the prevalence of each type of jaundice
Number of students that can be accommodated in this elective	Two
Prerequisites for elective	Basic knowledge about 1..Functions of Liver 2.Different types of tests used to assess function of liver in order to diagnose different types of liver disorders
Learning resources for students	1. Tietz text book of laboratory Medicine 2. Harrison's Principles of Internal Medicine 3.. Park's Text book of preventive and social Medicine 26th edn
List of activities of student participation	1.Work with preceptors 2. Collect data (Two case histories each with clinical details and laboratory findings for obstructive ,hemolytic , hepatic jaundice and haemolytic jaundice) 3. De Ritis ratio and A/G ratio :Essential details related to these ratio; Clinical utilities of these ratios by quoting report from two cases for each parameter
Portfolio entries required	Documentation with reflective writing, 1. Documentation of different types of jaundice cases with laboratory data and their interpretation including A/G ratio and De Ritis ratio
Log book entry required	1. Date wise LFT data collection along with clinical details (6 cases) 2. Calculating AG ratio and De Ritis ratio of 6 cases and their interpretation 3. Reflective writing related to the understanding of LFT in diagnosing different types of liver disorders 4. Master sheet of data collection – results (Charts and Graphs)

Assessment	Formative: 1. Attendance 2. Daily participation in departmental and laboratory activity 3. Performance of assigned tasks per day 4. Presentation of worked up cases in department 5. 360 degree assessment
Other comments	The learner is expected to spend at least 3 hours in a day in laboratory and department 75% attendance is mandatory for successful completion of the elective

Elective learning experience in Block I

Name of Block	Block I
Name of Elective	**3. Sickle cell disease and trait reported in the previous 2 years**
Location of hospital lab/research facility	Dept of Biochemistry & Biochemistry section of Central Laboratory
Name of internal preceptor(s)	Dr Sajeevan K C
Name of external preceptor(s) if applicable	
Learning objectives of electives	To know 1.Prevalence of Sickle cell disease in Kerala , India 2. Classification of Hemoglobinopathies, 3.Collect retrospective data of Hb Electrophoresis (Hb EP) for the diagnosis of Sickle cell disorders – enter in excel sheet – export to SPSS – Find out the prevalence of Sickle cell disease 4. Role Hb Electrophoresis in diagnosing HbS 5. Interpretation of Electrophoretogram (Hb EP)
Number of students that can be accommodated in this elective	Two
Prerequisites for elective	Basic knowledge about 1..Sickle cell diseases 3. Hb electrophoresis

Learning resources for students	3. Tietz text book of laboratory Medicine 4. Harrison's Principles of Internal Medicine 5. Pathology Robbins
List of activities of student participation	1. Discussion with preceptor 2. Collect retrospective data of SPE for the diagnosis of Sickle cell disorder – enter in excel sheet – export to SPSS – Find out the prevalence of Sickle cell disorder 3.Observe and perform the procedure of Hb Electrophoresis 4.Interpretation of electrophoretogram (paste the images of two cases) 5.Presentation - Results and discussion
Portfolio entries required	1.Documentation with reflective writing, 2.Recording of cases of Sickle cell disorder 3.Details about data collection and analysis
Log book entry required	1.Basic concepts of Sickle cell disorders 2.Data – master sheet – Results
Assessment	Formative: 6. Attendance 7. Daily participation in departmental and laboratory activity 8. Performance of assigned tasks per day 9. Presentation of worked up cases in department 10. 360 degree assessment
Other comments	The learner is expected to spend at least 3 hours in a day in laboratory and department 75% attendance is mandatory for successful completion of the elective

Elective learning experience in Block 1

Name of Block	Block I
Name of Elective	4. Quality Control (accuracy and precision) – How it is ensured in clinical biochemistry lab (GLUCOSE)?
Location of hospital lab/research facility	Department of Biochemistry & Biochemistry section of Central Laboratory

Name of internal preceptor(s)	Dr Nasid P M
Name of external preceptor(s) if applicable	Nil
Learning objectives of electives	To understand 1. measures to ensure accuracy and precision of laboratory results 2. Types of quality control (QC) - External and Internal QCs 3. Types of QC serums used for Internal quality assessment program 4. Construction of LJ plot 5.Using LJ plot for IQAP 6.Interpretation of QC results based on the lJ plot constructed
Number of students that can be accommodated in this elective	Two
Prerequisites for elective	4. Basic knowledge about QC programs employed in the laboratory 5. Computation skills to draw the L J plot
Learning resources for students	4. Clinical chemistry - Techniques ,Principles , Correlations (Michael L Bishop)
List of activities of student participation	1. Discussion with preceptors 2. Familiarize QC page of autoanalyzers 3. Collect data of QC glucose values of two batches per day for 10 days (To get 20 values) 4. Find out mean and SD 5. Construct LJ plot 6. Use this plot for IQAC 7. Interpretation using Westgard rules participation 8. Presentation of the activities done during the elective posting – About internal QC program : what ist ? How it is done ? Advantages
Portfolio entries required	Documentation with reflective writing, 2. A brief account of QC programs with special emphasis on IQAC 3. Add a note on importance of IQAC program
Log book entry required	5. Basic concepts of Quality assurance in laboratory

	Including types of internal QC samples ,procedure of preparing L J plot,construction LJ plot for Glucose
	6. Interpretation of QC values of Glucose using LJ plot
	7. Reflective writing on Quality control in clinical biochemistry lab

Assessment	Formative:
	11. Attendance in percentage
	12. Direct Observation of Procedural Skills (DOPS)
	   - Daily QC activities
	   - LJ plot construction and analysis
	13. Topic presentation 360 degree assessment
	14. 360 degree assessment

Other comments	The learner is expected to spend at least three hours in the department per day 75% attendance is mandatory for successful completion of the elective

Elective learning experience in Block I

Name of Block	Block I
Name of Elective B5	Quality Control (accuracy and precision) – How it is ensured in clinical biochemistry lab (UREA)?
Location of hospital lab/research facility	Department of Biochemistry & Biochemistry section of Central Laboratory
Name of internal preceptor(s)	Dr Angel Abraham
Name of external preceptor(s) if applicable	Nil
Learning objectives of electives	To understand 1. measures to ensure accuracy and precision of laboratory results 2. Types of quality control (QC) - External and Internal QCs 3. Types of QC serums used for Internal quality assessment program 4. Construction of LJ plot 5.Using LJ plot for IQAP

	6.Interpretation of QC results based on the LJ plot constructed
Number of students that can be accommodated in this elective	Two
Prerequisites for elective	1.Basic knowledge about QC programs employed in the laboratory 2.Computation skills to draw the L J plot
Learning resources for students	1.Clinical chemistry - Techniques ,Principles , Correlations (Michael L Bishop)
List of activities of student participation	1. Discussion with preceptors 2. Familiarize QC page of autoanalyzers 3. Collect data of QC glucose values of two batches per day for 10 days (To get 20 values) 4. Find out mean and SD 5. Construct LJ plot 6. Use this plot for IQAC 7. Interpretation using Westgard rules participation 8. Presentation of the activities done during the elective posting – About internal QC program : what is it ? How it is done? Advantages
Portfolio entries required	4. Documentation with reflective writing, 5. A brief account of QC programs with special emphasis on IQAC 6. Add a note on importance of IQAC program
Log book entry required	8. Basic concepts of Quality assurance in laboratory 9. Including types of internal QC samples ,procedure of preparing L J plot,construction LJ plot for Glucose 10. Interpretation of QC values of Glucose using LJ plot 11. Reflective writing on Quality control in clinical biochemistry lab
Assessment	Formative: 15. Attendance in percentage 16. Direct Observation of Procedural Skills (DOPS) 17. - Daily QC activities 18. - LJ plot construction and analysis 19. Topic presentation 360 degree assessment 20. 360 degree assessment
Other comments	The learner is expected to spend at least three hours in the department per day

	75% attendance is mandatory for successful completion of the elective

Elective learning experience in Block I

Name of Block	Block I
Name of Elective B6	Multiple Myeloma: Diagnosing Myeloma ,is it a dilemma ?
Location of hospital lab/research facility	Department of Biochemistry & Biochemistry section of Central Laboratory
Name of internal preceptor(s)	Dr Reshma Pushparajan
Name of external preceptor(s) if applicable	Nil
Learning objectives of electives	To understand 1. Mode of Presentation of Multiple myeloma 2. Diagnostic criteria for Multiple Myeloma 3. Role Serum Protein Electrophoresis (SPE) and Urine Protein Electrophoresis (UPE) in the diagnosis of multiple myeloma 4. Perform one each of SPE and UPE 5. Interpretation of Electrophoretogram- SPE & UPE
Number of students that can be accommodated in this elective	Two
Prerequisites for elective	6. Basic concepts of Multiple myeloma – Definition, Mode of Presentation 7. Basic knowledge about Electrophoresis
Learning resources for students	5. Practical clinical Biochemistry - Harold Varley 4th edn 6. Harrison's Principles of Internal Medicine (20th or 21st edn)
List of activities of student participation	1.Discussion with preceptor 2. Record clinical features , laboratory evaluation and management strategies of at least one (preferably two cases) case of multiple myeloma (MM) 3.Observe and perform the procedure of Electrophoresis – SPE & UPE

	4.Interpretation of electrophoretogram (SPE & UPE) (paste the images of two cases) 5..Presentation : -An overview of multiple myeloma emphasising the role of laboratory in the diagnosis and monitoring of treatment - SPE & UPE : A brief account of its procedure, interpretation of results and its significance in the management of MM
Portfolio entries required	Documentation with reflective writing, 1.Documentation with reflective writing, 2.Recording of case/ cases of Multiple Myeloma (clinical features plus lab investigations) 3.Chart out diagnostic and prognostic criteria for Multiple myeloma
Log book entry required	1.Basic concepts of Multiple myeloma 2.SPE and UPE : Documentation of related activities 3.Interpretation of electrophoretogram
Assessment	Formative: 1.Attendance 2.Daily participation in departmental academic activity 3.Performance of assigned tasks (DOPS) related to SPE and UPE 4.Presentation of worked up case in department (mini CEX) 2 cases 5.360 degree assessment
Other comments	The learner is expected to spend at least 3 hours in Department /laboratory 75% attendance is mandatory for successful completion of the elective

Elective learning experience in Block I

Name of Block	Block I
Name of Elective	7. Renal disorders: Laboratory perspective with Clinical correlations

Location of hospital lab/research facility	Dept of Biochemistry & Biochemistry section of Central Laboratory
Name of internal preceptor(s)	Dr Nimmy Maria James
Name of external preceptor(s) if applicable	Nil
Learning objectives of electives	1. Classification of Renal Function Tests 2. Enlist different renal disorders 3.Utility of RFT in diagnosing various kidney dysfunctions
Number of students that can be accommodated in this elective	Two
Prerequisites for elective	Basic knowledge of : 1. Renal function tests and their interpretation 2.Different types of kidney diseases 3. Knowledge of Estimated GFR - using formulas (Cockcroft - Gault , MDRD) 4. Protein Creatinine ratio(PCR)
Learning resources for students	7. Tietz text book of laboratory Medicine 8. Harrison's Principles of Internal Medicine
List of activities of student participation	9. Work with preceptors 10. Collect data(Two case histories each with clinical details and laboratory findings for Chronic Kidney disease, Nephrotic syndrome, Nephritis) 11. Calculate Estimated GFR of 10 cases of renal disorders using Cockcroft - Gault , MDRD formula 12. Calculate Protein Creatinine ratio(PCR) and mention the significance in the management of Kidney diseases
Portfolio entries required	Documentation with reflective writing, 7. Documentation of clinical details and laboratory findings for Chronic Kidney disease, Nephrotic syndrome, Nephritis 8. Calculation of Estimated GFR and PCR
Log book entry required	12. Date wise RFT data collection along with clinical details(2 cases) and their interpretation 13. Calculating Estimated GFR and PCR

	14. Reflective writing related to the understanding of RFT in diagnosing different types of renal disorders
Assessment	Formative: 21. Attendance 22. Daily participation in departmental and laboratory activity 23. Performance of assigned tasks per day 24. Presentation of worked up cases in department 25. 360 degree assessment
Other comments	The learner is expected to spend at least 3 hours in Department /laboratory 75% attendance is mandatory for successful completion of the elective

Elective learning experience in Block I

Name of Block	Block I
Name of Elective	**Investigating different types of jaundice Altered LFT values – Diagnostic possibilities ?**
Location of hospital lab/research facility	Dept of Biochemistry & Biochemistry section of Central Laboratory
Name of internal preceptor(s)	Dr Anju V
Name of external preceptor(s) if applicable	
Learning objectives of electives	1. Classification of Liver Function Tests in blood and Urine 2. Utility of LFT in diagnosing different types of Jaundice and other liver disorders 3. 4. De Ritis ratio and A/G : Clinical application
Number of students that can be accommodated in this elective	Two
Prerequisites for elective	Basic knowledge about 1.Function of Liver 2.Bilirubin metabolism 3.Different types of liver disorders

	4.Different types of tests used to assess function of liver in order to diagnose different types of liver disorders
Learning resources for students	1. Tietz text book of laboratory Medicine
List of activities of student participation	1.Work with preceptors 2. Collect data (Two case histories each with clinical details and laboratory findings for obstructive ,hemolytic , hepatic jaundice and haemolytic jaundice) 3. De Ritis ratio and A/G ratio :Essential details related to these ratio; Clinical utilities of these ratios by quoting report from two cases for each parameter
Portfolio entries required	Documentation with reflective writing, 9. Documentation of different types of jaundice cases with laboratory data and their interpretation including A/G ratio and De Ritis ratio
Log book entry required	15. Date wise LFT data collection along with clinical details (6 cases) 16. Calculating AG ratio and De Ritis ratio of 6 cases and their interpretation 17. Reflective writing related to the understanding of LFT in diagnosing different types of liver disorders
Assessment	Formative: 26. Attendance 27. Daily participation in departmental and laboratory activity 28. Performance of assigned tasks per day 29. Presentation of worked up cases in department 30. 360 degree assessment
Other comments	The learner is expected to spend at least 3 hours in a day in laboratory and department 75% attendance is mandatory for successful completion of the elective

Elective learning experience in Block I

Name of Block	Block I
Name of Elective B9	9.Investigating Thyroid disorders : Laboratory perspective with clinical correlations
Location of hospital lab/research facility	Dept of Biochemistry & Biochemistry section of Central Laboratory
Name of internal preceptor(s)	Dr Deepa Maria K V
Name of external preceptor(s) if applicable	Nil
Learning objectives of electives	1.To know about different types of Thyroid disorders 2.To study about different types of Thyroid Function Tests (TFT) and their utility in clinical practice
Number of students that can be accommodated in this elective	Two
Prerequisites for elective	Basic knowledge of : 1. Thyroid function tests and their interpretation 2. Different types of thyroid disorders- 3. Flow chart for diagnosis of Hypothyroidism and Hyperthyroidism
Learning resources for students	9. Tietz text book of laboratory Medicine 10. Harrison's Principles of Internal Medicine
List of activities of student participation	13. Work with preceptors 14. Collect data (10 cases of Thyroid disorders: clinical details along with TFTs) 15. Prepare flow chart for diagnosing Hypothyroidism and Hyperthyroidism
Portfolio entries required	Documentation with reflective writing, 10. Documentation of clinical details and laboratory findings for Hypothyroidism and Hyperthyroidism
Log book entry required	18. Date wise TFT data collection along with clinical details(10 cases) and their interpretation 19. Differentiate the thyroid disorders as Hypothyroidism and Hyperthyroidism

Assessment	Formative:
	31. Attendance
	32. Daily participation in departmental and laboratory activity
	33. Performance of assigned tasks per day
	34. Presentation of worked up cases in department
	35. 360 degree assessment
Other comments	The learner is expected to spend at least 3 hours in Department /laboratory
	75% attendance is mandatory for successful completion of the elective

Elective learning experience in Block I

Name of Block	Block I
Name of Elective B10	10.Electrolyte disorders – Serum Sodium : Laboratory Perspective with Clinical Correlations in diagnosis and management
Location of hospital lab/research facility	Dept of Biochemistry & Biochemistry section of Central Laboratory
Name of internal preceptor(s)	Dr Lavanya Madhavan
Name of external preceptor(s) if applicable	Nil
Learning objectives of electives	To know about
	1. Reference range for Serum Sodium
	2. Most common and reliable methodology used for estimation of S. Sodium
	3. Causes and Clinical features of Serum Sodium imbalance (Hyponatremia & Hypernatremia)
Number of students that can be accommodated in this elective	Two
Prerequisites for elective	Basic knowledge of :
	1. Serum electrolytes and their reference range
	2. Serum Sodium – disorders
	3. Correction of hyponatremia and hyponatremia – role of laboratory

Learning resources for students	11. Tietz text book of laboratory Medicine 12. Harrison's Principles of Internal Medicine
List of activities of student participation	16. Work with preceptors 17. Record five cases each for hyponatremia and hypernatremia with clinical details including management strategies
Portfolio entries required	Documentation with reflective writing, 11. Documentation of clinical details and laboratory findings for Hyponatremia and Hypernatremia with details including management strategies
Log book entry required	20. Date wise data collection along with clinical details(5 cases each for hyponatremia and hypernatremia) 21. Note on utility of serum sodium estimation in the management of different types of serum sodium imbalances
Assessment	Formative: 36. Attendance 37. Daily participation in departmental and laboratory activity 38. Performance of assigned tasks per day 39. Presentation of worked up cases in department 40. 360 degree assessment
Other comments	The learner is expected to spend at least 3 hours in Department /laboratory 75% attendance is mandatory for successful completion of the elective

Elective learning experience in Block I

Name of Block	Block I
Name of Elective B11	11.Electrolyte disorders – Serum Potassium : Laboratory Perspective with Clinical Correlations in diagnosis and management
Location of hospital lab/research facility	Dept of Biochemistry & Biochemistry section of Central Laboratory
Name of internal preceptor(s)	Dr Nasid P M

Name of external preceptor(s) if applicable	Nil
Learning objectives of electives	To know about 4. Reference range for Serum Potassium 5. Most common and reliable methodology used for estimation of S. Potassium 6. Preanalytical factors affecting Serum K level 7. Causes and Clinical features of Serum Potassium imbalance (Hypokalemia & Hyperkalemia)
Number of students that can be accommodated in this elective	Two
Prerequisites for elective	Basic knowledge of : 3. Serum Potassium and its reference range and preanalytical errors 4. S.Potassium imbalances 5. Role of laboratory in the management of hyperkalemia and hypokalemia
Learning resources for students	13. Tietz text book of laboratory Medicine 14. Harrison's Principles of Internal Medicine (20th or 21st edn)
List of activities of student participation	18. Work with preceptors 19. Record five cases each for Hypokalemia & Hyperkalemia with clinical details including management strategies
Portfolio entries required	Documentation with reflective writing, 12. Documentation of clinical details and laboratory findings for Hypokalemia & Hyperkalemia with details including management strategies
Log book entry required	22. Date wise data collection along with clinical details(5 cases each for Hypokalemia & Hyperkalemia) 23. Note on utility of serum Potassium estimation in the management of different types of serum Potassium imbalances
Assessment	Formative: 41. Attendance 42. Daily participation in departmental and laboratory activity 43. Performance of assigned tasks per day 44. Presentation of worked up cases in department

	45. 360 degree assessment
Other comments	The learner is expected to spend at least 3 hours in Department /laboratory 75% attendance is mandatory for successful completion of the elective

Elective learning experience in Block I

Name of Block	Block I
Name of Elective B12	Utility of tumor markers in the management of different types of malignancies
Location of hospital lab/research facility	Dept of Biochemistry & Biochemistry section of Central Laboratory
Name of internal preceptor(s)	Dr Angel Abraham
Name of external preceptor(s) if applicable	Nil
Learning objectives of electives	1. Tumor markers : Different types and the reliable methodology for their estimation 2. Utility of tumor markers including cut off values (in the diagnosis and monitoring of malignancies (PSA, beta HCG,CEA,AFP,CA 125,CA 19.9)
Number of students that can be accommodated in this elective	Two

Prerequisites for elective	Basic knowledge of :
	   1. Different types of Tumor markers
	   2. Role of tumor markers in diagnosis and management of malignancies

Learning resources for students	15. Tietz text book of laboratory Medicine
List of activities of student participation	20. Work with preceptors 21. Collect data and Record values of tumor markers tested for 5 days with clinical details (indicate the type of malignancy)
Portfolio entries required	Documentation with reflective writing,

	13. Documentation of values of tumor markers tested for 5 days with clinical details of positive cases 14. In positive cases indicate the type of malignancy
Log book entry required	24. Enlist the tumor markers including cut off values in the diagnosis and monitoring of malignancies (PSA, beta HCG,CEA,AFP,CA 125,CA 19.9) 25. Find out the positive cases 26. Mention the type of malignancy in positive cases
Assessment	Formative: 46. Attendance 47. Daily participation in departmental and laboratory activity 48. Performance of assigned tasks per day 49. Presentation of worked up cases in department 50. 360 degree assessment
Other comments	The learner is expected to spend at least 3 hours in Department /laboratory 75% attendance is mandatory for successful completion of the elective

Elective learning experience in Block I

Name of Block	Block I
Name of Elective B13	Unraveling Dyslipidemia – Role of Laboratory
Location of hospital lab/research facility	Dept of Biochemistry & Biochemistry section of Central Laboratory
Name of internal preceptor(s)	Dr Reshma Pushparajan
Name of external preceptor(s) if applicable	Nil
Learning objectives of electives	To know about 1. Lipid profile : Different parameters tested in this profile and their desirable levels 2. Utility of lipid profile in diagnosing Dyslipidaemia

Number of students that can be accommodated in this elective	Two
Prerequisites for elective	Basic knowledge of : 3. Serum lipids : Different types of lipoproteins and their role in Lipid transport (in brief) 4. Lipid profile : Different parameters tested under this category , type of specimen used (mention the rationale) 5. Apolipoproteins tested in this context and their significance 6. Dyslipidemia : Definition by quoting desirable levels of each parameter 7. Consequences of dyslipidemia (in brief) 8. Role of Apo lipoproteins and serum lipids in the risk assessment of atherosclerotic vascular diseases (CAD, CVA and PVD)
Learning resources for students	16. Tietz text book of laboratory Medicine
List of activities of student participation	22. Work with preceptors 23. Collect data - Tabulate lipid profile values of 2 days during elective posting and find out the percentage of dyslipidemia cases /day
Portfolio entries required	Documentation with reflective writing, 15. Tabulate lipid profile values of 2 days during elective posting and find out the percentage of dyslipidemia cases/day 16. Record 10 cases of dyslipidemia including clinical details
Log book entry required	27. Lipid profile : Different parameters and their desirable levels 28. Tabulate lipid profile values of 2 days during elective posting and find out the percentage of dyslipidemia /day 29. Record 10 cases of dyslipidemia including clinical details 30. Reflective writing on utility of unraveling dyslipidemia in the risk assessment and early intervention to prevent CAD, CVA and PVD
Assessment	Formative: 51. Attendance

	52. Daily participation in departmental and laboratory activity 53. Performance of assigned tasks per day 54. Presentation of worked up cases in department 55. 360 degree assessment
Other comments	The learner is expected to spend at least 3 hours in Department /laboratory 75% attendance is mandatory for successful completion of the elective