



**Paper-XVIII      BMLT-306      Practical-VI (Clinical Pathology)**

**Clinical Pathology**

1. Estimation of ESR by wintrob’s method.
2. Estimation from blood.
  - a. Sugar
  - b. Urea
  - c. Creatinine
  - d. Cholesterol
  - e. Billrubin
3. Estimation from urine
  - a. Urea
  - b. Bacterial contamination
  - c. Ketone bodies
  - d. Blood
  - e. Bile pigment
  - f. Creatinine
  - g. Urobilinogen

**Program Outcomes (POs)**

Programme Outcomes (POs): It represents the knowledge, skills and attitudes the students should have at the end of B.Sc. M.L.T.

PO1	Domain Knowledge	Develop and strengthen theoretical, conceptual and applied knowledge of Medical Laboratory Technology.
PO2	Problem Analysis	Enable use of critical, logical and reflective thinking to construct reasonable arguments and analyze complex phenomenon with strategic decision-making process.
PO3	Design/Development Solutions	Construct and design effective solutions by applying recent and advanced Medical Laboratory Technology in disease diagnosis.



PO4	Conduct Investigation of Complex Problems	Developing and applying new techniques and tools of optimization and diagnosis of diseases, which were difficult to diagnose through conventional diagnostic tools and techniques.
PO5	Modern Tool Usage	Develop the ability to apply and implement quantitative and qualitative tools and techniques of advance diagnosis to detect and diagnose diseases.
PO6	The Citizen and the Society	Enable students to become informed and responsible citizens by inculcating the practice of rational, ethical thinking and optimal decision-making to minimize resource wastage.
PO7	Environment and Sustainability	Enhance practical insights towards energy efficiency and sustainable development models by demonstrating solutions from environmentally friendly techniques.
PO8	Ethics	Apply the existing ethical guidelines in research thinking and community development
PO9	Individual and Team Work	Manage and build high performance teams by understanding the role of incentives, scientific virtue, decent work and pillars of organization efficiency.
P10	Communication	Practice effective oral and written communication to be able to convey advanced



		disease diagnostic theories and models in a pragmatic manner to the stakeholders of the society.
PO11	Project Management	Predict and analyze the role of new diagnostic techniques and policies on overall medical issues of society.
PO12	Life-Long Learning	Raise awareness on the importance of constant upskilling in the wake of diseases diagnosis and education along with effective demonstration of usage of existing resources.

**Programme Specific Outcome: (PSO's):**

**Programme specific Outcomes (PSO's):** are statements that describe what the students of BMLT should be able to do.

**PSO1:** To impart in-depth knowledge to student about different diagnostic techniques associated with the diseases and its factors, in human body

**PSO2:** To develop student understandings about the cellular functioning and the metabolism/synthesis of biomolecules.

**PSO3:** To give students in depth knowledge into special field of choice like Microbiology, Blood Banking, Biochemistry, Immunology etc.

**PSO4:** To make student familiar with different advance Medical Diagnostic Laboratory Techniques for the diagnosis of different diseases and symptoms.

**PSO5:** Students would know how to analyse biological specimens and other body fluids; their analysis can help to guide medical professionals for decision making.

**PSO6:** Student would development the knowledge about the laboratory management and working ethics along with the biomedical waste management.

**PSO7:** To sensitize student, allowed to play a integral role in the health care system without being in the spotlight.



**Course Outcome:**

Following are the course outcome for of B.Sc. Medical Laboratory Technology

<b>I<sup>st</sup> Year</b>			
<b>S. No.</b>	<b>Course Code</b>	<b>Course Name</b>	<b>Course Outcome</b>
1.	BMLT-101	Cytology	<ul style="list-style-type: none"><li>• To understand about the living cell and its organelles.</li><li>• To understand the functioning and structure of the cell organelles.</li></ul>
2.	BMLT-102	Biochemistry	<ul style="list-style-type: none"><li>• To understand about role of biomolecules and their importance in living cells.</li><li>• To understand about the structure and functioning of biomolecules in living cell.</li></ul>
3.	BMLT-103	Blood Banking & Hematology	<ul style="list-style-type: none"><li>• To understand the blood components and the factors associated with blood</li><li>• To understand the parameters of blood grouping, detection.</li></ul>
4.	BMLT-104	Health Education & Biomedical Waste Management	<ul style="list-style-type: none"><li>• To understand the importance of health education for society.</li><li>• To manage biomedical waste product and its safe remediation.</li></ul>
<b>II<sup>nd</sup> Year</b>			
<b>S. No.</b>	<b>Course Code</b>	<b>Course Name</b>	<b>Course Outcome</b>
1.	BMLT-201	Medical Microbiology	<ul style="list-style-type: none"><li>• To understand the micro-organisms and their mode of action against human body.</li><li>• To understand the diseases caused by micro-organisms.</li><li>• To understand the role and usage of micro-organisms for economic benefits such as production of vitamins, antibiotics and biopesticides.</li></ul>
2.	BMLT-202	Immunology & Immunodiagnostics	<ul style="list-style-type: none"><li>• To understand the factors associated with immune</li></ul>



			<p>system and its functioning against any infection.</p> <ul style="list-style-type: none"> <li>To understand the immunological diagnostic approaches against different infections.</li> </ul>
3.	BMLT-203	Biomedical Techniques	<ul style="list-style-type: none"> <li>To understand the techniques associated with biomedical research and diagnostics.</li> <li>To understand the new approaches and techniques associated with biomedical sciences.</li> </ul>
4.	BMLT-204	Medical Biochemistry	<ul style="list-style-type: none"> <li>To understand the role in metabolism &amp; synthesis of biomolecules in living cells.</li> <li>To understand the mode of action of biomolecules and their pathways.</li> </ul>
<b>III<sup>rd</sup> Year</b>			
<b>S. No.</b>	<b>Course Code</b>	<b>Course Name</b>	<b>Course Outcome</b>
1	BMLT-301	Human Physiology and Anatomy	<ul style="list-style-type: none"> <li>To help in understanding the health status of patients</li> <li>It helps in assessing ,evaluating ,diagnosis and tracking a patient's health/human health</li> </ul>
2	BMLT-302	Clinical Pathology	<ul style="list-style-type: none"> <li>To identify the cause of uneasiness in human body</li> <li>To diagnose and manage disease by use of every component of laboratory medicine and every diagnostic technique.</li> </ul>
3	BMLT-303	Community Medicine	<ul style="list-style-type: none"> <li>To protect and promote the health and well-being of communities and populations through Primary Health care approach.</li> <li>To improve health by addressing the structures and system that define a place</li> </ul>
4	BMLT-304	Principle of Lab Management & Medical Ethics	<ul style="list-style-type: none"> <li>To understand the management of laboratory and working ethics</li> </ul>



			<ul style="list-style-type: none"><li>To understand the practices associated with GLP (Good Laboratory Practices)</li></ul>
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