

**H.N.B. Garhwal University, Srinagar  
(Garhwal) – 246 175, Uttarakhand**

**Syllabus**

**M.Sc. Medical Lab Technology (Pathology)**

**First Semester (Course Structure)**

S.No.	Theory Paper	Paper Code	Max Marks		Paper duration	Practical (Max. Marks) + clinical	
			Univ. Exam	Class Test		Univ. Practical	Int. Ass. (Prac.+Job Training)
1.	Clinical Biochemistry	MLT-101	50	10	3 hrs	60	15+05
2.	Bio-Physics & Human Physiology	MLT-102	50	10	3 hrs	60	15+05
3.	Immunology, Vaccinology and Transplantation Technology	MLT-103	50	10	3 hrs	60	15+05
4.	Medical Microbiology	MLT-104	50	10	3 hrs	60	15+05
5.	Clinical Haematology & Blood Banking Technology	MLT-105	50	10	3 hrs	60	15+05
<b>Total</b>			<b>250</b>	<b>50</b>		<b>300</b>	<b>100</b>

Second Semester (Course Structure)

S.No.	Theory Paper	Paper Code	Max Marks		Paper duration	Practical (Max. Marks) + clinical	
			Univ. Exam	Class Test		Univ. Practical	Int. Ass. (Prac.+Job Training)
1.	Diagnostic Biochemistry & Organ Function Test	MLT-201	50	10	3 hrs	60	15+05
2.	Histopathology and Morbid Anatomy Techniques	MLT-202	50	10	3 hrs	60	15+05
3.	Cytology & Cytogenetics	MLT-203	50	10	3 hrs	60	15+05
4.	Diagnostic Microbiology & Immuno Haematology	MLT-204	50	10	3 hrs	60	15+05
5.	Human	MLT-205	50	10	3 hrs	60	15+05

	Genetics & Human Genome						
		<b>Total</b>	<b>250</b>	<b>50</b>		<b>300</b>	<b>100</b>

### Third Semester (Course structure) (Pathology with Haematology)

S.No.	Theory Paper	Paper Code	Max Marks		Paper duration	Practical (Max. Marks) + clinical	
			Univ. Exam	Class Test		Univ. Practical	Int. Ass. (Prac.+Job Training)
1.	Clinical Haematology Non-Neoplastic	MLT-301 (PH)	80	20	3 hrs	80	20
2.	Clinical Haematology Neoplastic	MLT-302 (PH)	80	20	3 hrs	80	20
3.	Immunohaematology & Advanced Hematologic Techniques	MLT-303 (PH)	80	20	3 hrs	80	20
		<b>Total</b>	<b>240</b>	<b>60</b>		<b>240</b>	<b>60</b>

**“Clinical training and day to day assignment” – 100 marks**

**Total = 600+100=700 Marks**

### Third Semester (Course structure) (Pathology with Clinical Biochemistry)

S.No.	Theory Paper	Paper Code	Max Marks		Paper duration Hrs.	Practical (Max. Marks)	
			Univ. Exam (Theory)	Int. Assts. (Theory)		Univ. Exam (Theory)	Int. Ass. (Theory)
1.	Advances in Biochemical Sciences	MLT-301 (CB)	80	20	3 hrs	80	20
2.	Intermediary Metabolism & Metabolic Disorders	MLT-302 (CB)	80	20	3 hrs	80	20
3.	Diagnostic	MLT-303 (CB)	80	20	3 hrs	80	20

	Enzymology						
		<b>Total</b>	<b>240</b>	<b>60</b>		<b>240</b>	<b>60</b>

**“Clinical training and day to day assignment” – 100 marks**

**Total = 600+100=700 Marks**

**Third Semester (Course structure) (Pathology with Clinical Microbiology)**

S.No.	Theory Paper	Paper Code	Max Marks		Paper duration Hrs.	Practical (Max. Marks)	
			Univ. Exam (Theory)	Int. Assts. (Theory)		Univ. Exam (Theory)	Int. Ass. (Theory)
1.	General Issues in Clinical Microbiology	MLT-301 (M)	80	20	3 hrs	80	20
2.	Diagnostic Microbiology	MLT-302 (M)	80	20	3 hrs	80	20
3.	Instrumentation & Techniques in Medical Microbiology	MLT-303 (M)	80	20	3 hrs	80	20
		<b>Total</b>	<b>240</b>	<b>60</b>		<b>240</b>	<b>60</b>

**“Clinical training and day to day assignment” – 100 marks**

**Total = 600+100=700 Marks**

**M.Sc. Medical Laboratory Technology,**

**Fourth Semester (Course structure)**

Project, which will carry 400 marks

The project will be based upon the research and actual bench work. It will begin from 3<sup>rd</sup> Semester and will continue through the fourth one. The project report will be submitted at the end of the 4<sup>th</sup> semester & evaluated (50% evaluation by Internal Examiner & 50% evaluation by External Examiner.

**Grand total = 700+700+700+400=2500 marks**

Director  
Faculty of Health Sciences  
JSS University  
Mysore