

## **Ordinance No. 24**

### **BACHELOR OF SCIENCE IN MEDICAL LABORATORY TECHNOLOGY (BMLT) 03 YEAR DEGREE COURSE**

#### **1.0 AIMS AND OBJECTIVES**

##### **1.1 AIMS**

- 1.1.1 To provide skilled professionals who will be able to work in a variety of laboratory settings.
- 1.1.2 To provide students with an overview of various medical laboratory procedures.

##### **1.2 OBJECTIVES**

- 1.2.1 To impart adequate theoretical and practical knowledge in basic Medical Laboratory Sciences.
- 1.2.2 To perform routine and special laboratory investigations.
- 1.2.3 To introduce quality control system in laboratory.

#### **2.0 COURSE STRUCTURE**

- 2.1 The Degree in Medical Laboratory Technology of 03 years (Three academic years) course here in after called 3 year degree course shall be designated as Bachelor of Medical Laboratory Technology, in short BMLT.
- 2.2 Duration of the course : The Bachelor of Medical Technology (Laboratory) is a three year regular degree course, named below:
  - a. B.Sc. MLT-1 year
  - b. B.Sc. MLT- II year
  - c. B.Sc. MLT- III year

2.3 Each academic year shall consist of 240 teaching days.

2.4 The Student admitted in BMLT-course shall have to complete the course within the maximum permissible duration of 6 years, from the date of admission.

### **3.0 ACADEMIC QUALIFICATION & SELECTION CRITERIA FOR ADMISSION**

3.1 Admission to the First year B.Sc. in Medical Laboratory Technology degree course shall be 10+2 system of education in science group or equivalent examination with Chemistry, Physics & Biology, as main subjects conducted by a ^recognized Board/Council/ University with minimum of 40% marks."

3.2 Vocational Subjects like Bio-technology, MLT, Fisheries, Dietetics, Live Stock and Poultry etc in substitution for Biology shall be also considered for eligibility.

3.3. The candidate should have completed minimum of 17 years of age on/before 31st December of the concerned academic session.

3.4 Selection Criteria: The admission in B.Sc. MLT- First Year shall be based on the merit of the qualifying examination.

Or

Common Entrance Test (CET), conducted by the University/ any designated agency, as per guidelines of Medical Education Dept Govt. of M.P., Bhopal.

3.5 On admission, every candidate shall have to get fitness certificate from Malwanchal Hospital, for physical fitness.

### **4.0 COMMENCEMENT OF COURSE**

The course shall be commencing from the month of August of every academic year.

## **5.0 REGULATIONS RELATING TO THE ASSESSMENT OF ACADEMIC GROWTH OF THE STUDENT**

The assessment of academic growth of the student shall be done on the basis of Three Sessional Examination (conducted during the year) and one University Examination (conducted at the end of the academic year).

The medium of Instruction and Examination shall be English throughout the course of the study.

### **5.1 Attendance**

5.1.1 Candidates appearing as regular student for any annual examination are required to attend 75% of the total lecturer's delivered and of the practical classes held separately in each subject of the course of the study.

5.1.2 The total lecture and practical shall be conducted as per scheme and syllabus given in subsequent section.

### **5.2 Sessional Examinations**

Three Sessional Examination shall be conducted for each subject, separately for theory and practical.

### **5.3 Internal Assessment**

The internal assessment for each subject of each academic year shall carry 100 marks.

### **5.4 University Examination; Theory & Practical**

#### **5.4.1 Written Examination**

- a. The Main Examination shall be held on yearly basis for all the three years respectively.

- b. There shall be 2 University Examination in a year: Main examination in May/June and Supplementary Examination (II examination) in October/November.

The succeeding examination shall be held within 6months.

5.5 Appointment of the Examiners/ Question Paper Setters The appointment of examiner for the University Examination shall be based on following criteria;

5.5.1 For .Theory paper setting one examiner will be an External, minimum an Assistant Professor with 3 years teaching experience in the concerned subject.

5.5.2 For the Practical examinations there shall be two examiners for each subject, one External Examiner and one Internal Examiner, with minimum qualification and experience of an Assistant Professor with 3 years teaching experience in the concerned subject.

5.5.3 The External Examiner shall be the subject expert from outside the University having Masters/ Post Graduate qualification in the concerned subject with minimum 3 years teaching experience.

5.5.4 The Faculty of the Subject/ Head of the Department with minimum 3 years of teaching experience shall be the Internal-Cum-Convener examiner for the examinations.

5.6 Criteria for Passing In each subject/head (theory and practical);

5.6.1 In all the University examinations, the candidates shall have to Obtain 50% marks separately in theory plus internal assessment and practical plus viva voce examination.

5.6.2 Each theory paper and practical will be treated as separate subject/ head for the passing.

5.6.3 The student shall carry over two subjects from one year to the following year and must pass in the fail subject before appearing in the next year examination. The Student shall carry two subjects from first year to second year as well as second year to third year and must pass in the fail subjects before appearing the next year examination.

## **5.7 Division and Merit List**

5.7.1 The Division shall be awarded after Annual University Examination in each academic year and shall be based on the aggregated marks obtain by the candidates at his/ her successful attempt in annual University examination.

There shall be Divisions as follows:

Distinction: 75% and above of grand total marks in First attempt.

First Division: >60% and <75% of grand total marks in First attempt.

Second Division: >50% and <60% of grand total marks in First attempt.

Distinction in individual subject: >75% marks in Individual subject shall be indicated exclusively in the mark sheet provided First attempt.

5.7.2 The merit shall be declared by the University after the final year University examination, on the basis of the aggregate marks of all academic years in University examination. The merit list shall include the first ten candidates securing at least First Division and passing all the appeared subjects in annual examination in first attempt.

## **5.8 Three Months Compulsory Rotatory Clinical Training**

For BMLT III year students, three months Compulsory Rotatory Clinical Training shall be compulsory as a part of partial completion of the course. The training, shall be undertaken in any of Medical Laboratory attached with minimum 100 bedded hospital.

For this exercise the students may require to spend three months in rotation with at-least four following labs:

- a. Clinical Biochemistry Lab
- b. Clinical Microbiology Lab
- c. Pathology and/ or Haematology Lab
- d. Blood Banking

The Laboratory training should cover the following terms:

The recognized laboratory shall require experts with BMLT qualification, for the guidance of the students. Student: Technician ratio will be 1:5.

- a. Student seeking training outside the campus must obtain a MOC from the HOI prior to the program.
- b. Minimum 50-70 hrs is mandatory for each of the above mention Laboratories.
- c. Student should-obtain Training Completion Certificate within duration from the concerned Hospital/ Laboratory. Same should be submitted to the Institute for qualifying III year University Examination.
- d. Any absenteeism misconduct, poor performance etc may require extension of the program on the recommendation of the HOD.

## **6.0 REVALUATION / RE-TOTALING**

6.1 Student may apply for Re-evaluation and/or Re-totaling of the answer sheet of the appeared subjects, post result for any doubt in the marks obtained on the following criteria:

- 6.1.1 Student may go for all the appeared subjects of that session for Re-evaluation as well as Re-totaling simultaneously, within stipulated time, as prescribed by the University.

## **7.0 CANCELLATION OF ADMISSION**

7.1 The admission of a student at any stage of study shall be cancelled by the Vice Chancellor based on recommendation of Head of the Institution, if:

7.1.1 He/She is not found qualified as per MP Paramedical Council norms and guidelines or the eligibility criteria prescribed by the University.

7.1.2 He/she is found to have produced false/forged documents or found to have used unfair means to secure admission.

7.1.3 He/She is found involved in serious breach of discipline in the institution or in the University campus.

## 8.0 SCHEME OF COURSE / EXAMINATION

### 8.1 Scheme of Teaching Schedule (for each academic year)

Subject	Theory Min. Hrs.	Practical Min. Hrs.	Clinical/ Lab Posting	Total Min. Hrs.
<b>FIRST YEAR</b>				
Biochemistry	80	120	110	310
Hematology and Clinical Pathology	90	120	110	320
Applied Histology	90	120	110	320
Microbiology	100	120	110	330
* Applied English	60	-	-	60
* First aid and Basic Nursing	60	20	-	80
<b>SECOND YEAR</b>				
Analytical Biochemistry	80	120	110	310
Hematology	90	120	110	320
Cellular Pathology	90	120	110	320
Identification of Bacteria	100	120	110	330
* Basic Computer Application	20	40	-	60
<b>THIRD YEAR</b>				
Clinical Biochemistry	80	120	110	310
Applied Hematology	80	120	110	310
Special Histology	90	120	110	320
Applied Microbiology	100	120	110	330
Instrumentation	-	-	-	40
*Clinical Research Methodology	20	-	-	20
* Clinical Posting	-	-	300	300

\* Non Examination (Subsidiary Subjects)

**8.2 Question Paper Pattern**

SUBJECT HAVING MAXIMUM MARKS 100		
TYPE OF QUESTION	NUMBER OF QUESTION	MARKS OF EACH QUESTION
Essay Type	4 (Any 4 Out of 5)	20X4=80
Short Answer Type	4 (Any 4 Out of 5)	5X4=20

**8.3 Scheme of Examination**



Paper	Theory	Internal Assessment	* Min. Theory + Internal Assessment	Practical & Viva	* Min. Practical
<b><u>FIRST YEAR</u></b>					
Biochemistry	100	100	100	100	50
Haematology and Clinical Pathology	100	100	100	100	50
Applied Histology	100	100	100	100	50
Microbiology	100	100	100	100	50
<b><u>SECOND YEAR</u></b>					
Analytical Biochemistry	100	100	100	100	50
Haematology	100	100	100	100	50
Cellular Pathology	100	100	100	100	50
Identification of Bacteria	100	100	100	100	50
<b><u>THIRD YEAR</u></b>					
Clinical Biochemistry	100	100	100	100	50
Applied Haematology	100	100	100	100	50
Special Histology	100	100	100	100	50
Applied Microbiology	100	100	100	100	50
#Instrumentation	-	50	25	-	-

\* Minimum 50% passing marks require in theory &, internal assessment as well as in practical & viva-voce.

# The marks of the instrumentation paper will not be included in the Total Result i.e. for calculation percentage of marks obtained.