

1. SALIENT FEATURES OF THE DIPLOMA PROGRAMME IN MEDICAL LABORATORY TECHNOLOGY

1. Name of the Programme : Diploma programme in Medical Laboratory Technology
2. Duration of the Programme : Three years (including one year Professional Training)
3. Entry Qualifications : Matriculation or as prescribed by State Board of Technical Education, Haryana
4. Intake : 30 or as prescribed by State Board of Technical Education, Haryana
5. Pattern of the Programme : Semester System (each semester is of 16 weeks and each week has 36–40 contact hours for academic work).

6. Practical/Professional Training

To develop practical skills in the students, in final year (fifth and sixth semester), only practical/professional training in various medical colleges/hospitals/clinical laboratories has been incorporated. Regular processing of specimen in the laboratory from nearby clinic/hospital to be done in the laboratory during first to fourth semester

7. Industry-Institute Interaction

- a) Regular visits to Hospitals/Medical Colleges/Clinical laboratories form regular part of each curriculum area. Reports by students must be insisted upon
- b) Extension lectures – a minimum of 4 lectures per semester are recommended by inviting professionals from field to deliver extension lectures/ demonstration on specialized topics.

2. EMPLOYMENT OPPORTUNITIES FOR DIPLOMA HOLDERS IN MEDICAL LABORATORY TECHNOLOGY

A diploma holder in Medical Laboratory Technology may be employed in the following organizations:

1. Government Hospitals/Private Hospitals/ Primary Health Centres/Private Nursing Homes/Clinics/National Institute of Communicable diseases
2. Medical Colleges (Clinical Laboratories)
3. Medical Research Laboratories/Reference laboratories/R&D Laboratories
4. Pharmaceutical Firms dealing in analytical kits and instruments
5. Self-employment

3. COMPETENCY PROFILE OF DIPLOMA HOLDERS IN MEDICAL LABORATORY TECHNOLOGY

Based on employment opportunities for diploma holders in Medical Laboratory Technology, following competency profile is arrived at:

1. Knowledge about basic anatomical structure of human body and physiological functions
2. Awareness of different laboratory hazards and safety precautions during sample collections and laboratory investigations and biological waste management
3. Ability to collect, transport and preserve clinical samples such as blood, urine, stool, sputum, swabs etc and carry out laboratory investigations for diagnostic purposes
4. Knowledge and skill of operating, handling, care and preventive maintenance of various types of laboratory equipment (routine and sophisticated)
5. Knowledge about the procurement of materials, preparation, standardisation and storage of different laboratory reagents for laboratory investigations
6. Knowledge of reference values for various types of clinical investigations and knowledge of quality assurance
7. Ability to make use of computer for information storage and retrieval pertaining to laboratory investigations
8. Knowledge of automation in Medical Lab. Technology
9. Understanding importance of human relations, professional ethics, medico legal aspects and communication skills for effective functioning in the field of medical lab technology
10. Ability to learn by himself/herself and think alternatives for solving problems related to the field of medical lab. technology
11. Understanding of basic principles of management of men, material and equipment for their optimum utilization and effectiveness.

4. DERIVATION OF CURRICULUM AREAS FROM COMPETENCY PROFILE

Sr. No.	Competency	Curriculum Area
1.	Knowledge about basic anatomical structure of human body and physiological functions	- Anatomy and Physiology
2.	Awareness of different laboratory hazards and safety precautions during sample collections and laboratory investigations and biological waste management	- Laboratory Management
3.	Ability to collect, transport and preserve clinical samples such as blood, urine, stool, sputum, swabs etc and carry out laboratory investigations for diagnostic purposes	- Haematology - Blood Banking - Biochemistry - Microbiology - Histopathology and Cytology
4.	Knowledge and skill of operating, handling, care and preventive maintenance of various types of laboratory equipment (routine and sophisticated)	- Haematology - Blood Banking - Biochemistry - Microbiology - Histopathology and Cytology
5.	Knowledge about the procurement of materials, preparation, standardisation and storage of different laboratory reagents for laboratory investigations	- Laboratory Management - Chemistry - Biochemistry
6.	Knowledge of reference values for various types of clinical investigations and knowledge of quality assurance	- Haematology - Blood Banking - Biochemistry - Microbiology - Histopathology and Cytology
7.	Ability to make use of computer for information storage and retrieval pertaining to laboratory investigations	- Basics of Information Technology

Sr. No.	Competency	Curriculum Area
8.	Knowledge of automation in medical lab. technology	- Computer skills
9.	Understanding importance of human-relations, professional ethics, medico legal aspects and communication skills for effective functioning in the field of medical lab. technology	- Communication Skills - Laboratory Management
10.	Ability to learn by himself/herself and think alternatives for solving problems related to the field of medical lab. technology	- Professional/ Practical Training
11.	Understanding of basic principles of management of men, material and equipment for their optimum utilization and effectiveness	- Laboratory Management

5. ABSTRACT OF CURRICULUM AREAS

Following is the abstract of curriculum areas:

a) General Studies

1. Communication Skills
2. Basics of Information Technology
3. Entrepreneurial Awareness
4. Ecology and Environmental Awareness
5. Entrepreneurship Development and Management

b) Applied Sciences

6. Chemistry

c) Basic Areas

7. Anatomy and Physiology

d) Applied Areas

8. Clinical Microbiology
9. Clinical Haematology
10. Clinical Biochemistry
11. Histopathology and Cytology
12. Histopathology
13. Blood Banking
14. Medical Laboratory Management and Professional Ethics
15. Practical/Professional Training

6. HORIZONTAL AND VERTICAL ORGANISATION OF THE SUBJECTS

Sr. No.	Subjects	Distribution in Hours in Various Semesters					
		I	II	III	IV	V	VI
1.	Communication Skills	5	5	-	-	-	-
2.	Chemistry	5	-	-	-	-	-
3.	Anatomy and Physiology	5	5	-	-	-	-
4.	Clinical Microbiology	7	7	7	7	-	-
5.	Clinical Haematology	7	7	7	7	-	-
6.	Clinical Biochemistry	7	7	9	7	-	-
7.	Histopathology	-	5	7	-	-	-
8.	Basics of Information Technology	-	-	4	-	-	-
9.	Histopathology and Cylology	-	-	-	7	-	-
10.	Blood Banking	-	-	-	5	-	-
11.	Medical Lab. Management and Professional Ethics	-	-	-	3	-	-
12.	Practical/Professional Training	-	-	-	-	40	40
13.	Student Centred Activities	4	4	4	4	-	-
	Total	40	40	40	40	40	40