DIPLOMA PROGRAMME IN MEDICAL LABORATORY TECHNOLOGY
(For the State of Haryana)

1. SALIENT FEATURES

1.	Name of the Programme	:	Diploma Programme in Medical Laboratory Technology
2)	Duration of the Programme	:	Three years (Six Semesters)
3)	Entry Qualification	:	Matriculation or equivalent as prescribed by State Board of Technical Education, Haryana
4)	Intake	:	40/60 (or as prescribed by the Board)
5)	Pattern of the Programme	:	Semester Pattern
6)	Ratio between theory and Practice	:	35 : 65 (Approx.)

7) Ecology and Environment:

As per Govt. of India directives, a subject on Environmental Education has been incorporated in the scheme.

8) Student Centred Activities:

A provision of 5-6 hrs per week has been made for organizing Student Centred Activities for overall personality development of students. Such activities will comprise of co-curricular activities like extension lectures, library studies, games, hobby clubs e.g. photography, painting, singing, seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities, Civil Defence/Disaster Management activities etc.

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/Private Diagnostic Centres/Clinics/National Institute of Communicable diseases

2. Medical Colleges/Dental Colleges (Clinical Laboratories)

3. Medical Research Laboratories/Reference laboratories/R&D biotechnology Laboratories

4. Pharmaceutical Firms (analytical kits, instruments etc)

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, prepare, 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 laboratory equipment, glasswares/plastic wares, chemicals and reagents for laboratory investigations

6 Knowledge of reference values for various types of clinical investigations and ability to ensure quality assurance as per national standards..

7 Knowledge about lab management and record keeping

8. Ability to make use of computer for information storage and retrieval pertaining to laboratory investigations

9. Knowledge of automation in Medical Laboratory Technology

10. Understanding importance of communication skills, human relations, professional ethics, environmental education, medico legal aspects in the field of medical lab technology

11. Ability of self-learning and independent thinking for solving problems related to the field of Medical Laboratory Technology

12. Understanding of basic principles of management of manpower, material and resources for their optimum utilization and effectiveness.

13. Ability to communicate effectively in the world of work.

4. DERIVATION OF CURRICULUM AREAS FROM COMPETENCY PROFILE

S.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	- Medical 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 - Transfusion Medicine (Blood Banking) - Clinical Biochemistry - Clinical 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 - Transfusion Medicine (Blood Banking) - Clinical Biochemistry - Clinical Microbiology - Histopathology and Cytology
5.	Knowledge about the procurement of laboratory equipment, glass wares/ plastic wares,chemical and reagents for laboratory investigations	- Laboratory Management - Chemistry - Clinical Biochemistry - Haematology - Transfusion Medicine (Blood Banking) - Clinical Microbiology - Histopathology and Cytology
6.	Knowledge of reference values for various types of clinical investigations and ability to ensure quality assurance as per national standard	- Haematology - Transfusion Medicine - Clinical Biochemistry - Clinical Microbiology - Histopathology and Cytology
7.	Knowledge about lab management and record keeping	- Medical Laboratory Management

8.	Ability to make use of computer for information storage and retrieval pertaining to laboratory investigations	- Basics of Information Technology
9.	Knowledge of automation in medical lab. technology	- Haematology - Transfusion Medicine (Blood Banking) - Clinical Biochemistry - Clinical Microbiology - Histopathology and Cytology
10.	Understanding importance of communication skills, human-relations, professional ethics, environmental education medico legal aspects in the field of medical lab. technology	- Communication Skills - Medical Laboratory Management - Environmental Education
11.	Ability of self-learning and independent thinking for solving problems related to the field of medical lab. technology	- Professional Training - Employability Skills
12.	Understanding of basic principles of management of manpower, material and resources for their optimum utilization and effectiveness	- Medical Laboratory Management
13	Ability to communicate effectively in the world of work	- Communication Skills

5. ABSTRACT OF CURRICULUM AREAS

Following is the abstract of curriculum areas:

a) General Studies

1. Communication Skills
2. Basics of Information Technology
3. Employability skills
4. Environmental Education
5. Entrepreneurial Awareness
6. Personality Development Awareness

b) Applied Sciences

7. Basic Chemistry
8. Organic Chemistry

c) Basic Areas

9. Anatomy and Physiology

d) Applied Areas

10. Clinical Microbiology
11. Haematology
12 Clinical Biochemistry
13 Histopathology and Cytology
14 Transfusion Medicine (Blood Banking)
15 Medical Laboratory Management
16 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	Basic Chemistry	5	-	-	-	-	-
3	Anatomy and Physiology	5	5	-	-	-	-
4	Clinical Microbiology	7	7	6	6	-	-
5	Haematology	7	7	6	6	-	-
6	Clinical Biochemistry	7	7	6	6	-	-
7	Histopathology and Cytology	-	5	6	7	-	-
8	Organic Chemistry	-	-	4	-	-	-
9	Basics of Information Technology	-	-	5	-	-	-
10	Transfusion Medicine (Blood Banking)	-	-	-	-	-	-
11	Medical Laboratory Management	-	-	-	4	-	-
12	Practical Professional Training	-	-	-	-	40	40
13	Employability Skills	-	-	2	2	-	-
14	Environmental Education	-	-	-	3	-	-
14	Student Centred Activities	4	4	5	6	-	-
	Total	**40**	**40**	**40**	**40**	**40**	**40**