

COURSE NAME : DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY
COURSE CODE : ML
SEMESTER : THIRD
SUBJECT TITLE : COMPUTER APPLICATION
SUBJECT CODE : --

Teaching and Examination Scheme:

Teaching Scheme			Examination Scheme						
TH	TU	PR	PAPER HRS	TH	TEST	PR	OR	TW	TOTAL
02	--	02	--	--	--	--	--	25@	25

RATIONALE:

Computer plays an important role in human lives. The primary of using a computer is to make life easier. It is a gateway to a wonderful world of information and various application. Computers have established an indispensable part in a business, academics, defense, budgeting, research, engineering, medicine, space. This subject introduce the fundamentals of computer system focusing various hardware and software components. It also provides biblical worldview regarding computer ethics by means of Internet.

OBJECTIVES:

Students will be able to :

- 1) Understand a computer system that has hardware and software components, which controls and makes them useful.
- 2) Understand the operating system as the interface to the computer system.
- 3) Use the basic function of an operating system.
- 4) Set the parameter required for effective use of hardware combined with and application software's.
- 5) Compare major OS like Linux and MS-Windows.
- 6) Use file mangers, word processors, spreadsheets, presentation software's and Internet.
- 7) Have hands on experience on operating system and different application software.
- 8) Use the Internet to send mail and surf the World Wide Web.

CONTENTS: Theory

Chapter	Name of the topic	Hours
1	HARDWARE AND SOFTWARE 1.1 Hardware, Basic components, peripherals. 1.2 Software and types of softwares. 1.3 Operating systems, DOS and Unix.	08
2	LANGUAGES 2.1 Language processors and utilities. 2.2 High level, low level languages. 2.3 HLL used for softwares like BASIC, JAWA, C, C++ etc. 2.4 Application softwares, Graphics, multimedia, presentation software	08
3	PROGRAMMING 3.1 Programming methodology, problem solving using BASIC language. 3.2 Algorithm, flowchart 3.3 Features of C++	08
4	APPLICATION IN MEDICAL LAB 4.1 Computerisation in Medical Lab. 4.2 Application in Haematology 4.3 CASA and fluid assay. 4.4 Metabolic analysis 4.5 In Biochemical investigations.	08
TOTAL		32

Practical:

Skill to be developed

1) Intellectual Skills

- * Selecting proper hardware & software for problem solving.
- * Using proper logic in program preparation.
- * Syntax of the given HLL.
- * Application packages and their use in Medical laboratories.

2) Motor Skills

- * Operating DOS and UNIX.
- * Using multimedia, Graphics.
- * Using proper functions keys.

List of Practical:

Sr. No.	Title
01	Write two Theoretical Reports and two working practical
02	Write two Theoretical Reports and two practical exercise
03	Write two Theoretical Reports and four Programs in BASIC
04	Write five Theoretical Reports

Learning Resources:**Books:**

Sr. No.	Title	Name of Author	Name of Publisher
01	Computers Today	Donald Sanders	McGraw Hill Book Company
02	Windows 3.1 made easy	Tom Shelders	Tata McGraw Hill publishing
03	Programming in BASIC	E. Balguruswamy	Tata McGraw Hill
04	Computers in Medicine	Y. Lele	--