

Devi Ahilya University, Indore, India Institute of Engineering & Technology				II Year B.E. (Computer Engineering) (Full Time)			
Subject Code & Name	Instructions Hours per Week			Credits			
	L	T	P	L	T	P	Total
CER3L1 Computer Hardware Lab	0	0	2	0	0	1	1

Learning Objectives:

1. To provide the knowledge of computer Hardware parts and latest technology.
2. To give basic Knowledge of working internal part of system.
3. To develop skill to analyze and find the fault in System.
4. To know how to assembling the hardware parts.

Pre requisites : NIL

COURSE CONTENTS

UNIT-I

Central Processing Unit - Basics of Processor and Computer Generation, Study of Different Processor, Pentium, Dual Core, Quad Core , I3, I5, I7 Processor, Motherboards, Chipset and Controllers, BIOS and the Boot Process.

UNIT-II

Internal Components - IDE and SATA Devices: Hard Disk Drive and CD/DVDs Drives, SCSI Devices, Floppy Disk, Zip Drive, Backup Drive, Expansion Cards- LAN Card, IDE Card , VGA and SVGA Cards, Sound Card, Interface Cards, I/O cards, Video Cards, USB Card, Internal Ports, Cables and Connector Types, SMPS.

UNIT-III

Computer Peripherals - Monitors:- CRT, LCD and LED Displays, Printers:- Dot-Matrix Printer, Inkjet Printer, Laser Printer

Scanner:- Photo Scanner, Documents Scanner, Bar Cord Scanner, Keyboards, Mouse, External Modem, Ports and Connectors, Batteries, Pen Drives, SCSI interface devices, Laptop Computers, Digital Advance storage technology.

UNIT-IV

Memory and Networking Devices - Computer memory: Primary Memory- RAM, ROM, Secondary memory, Switches, Routers, Modems.

UNIT-V

Assembling and Installation - Assembled the Hardware Parts, Different types of Operating systems, System files FAT and NTFS, DOS, Windows XP, Windows Vista, Windows 7 and Windows 8 and Red Hat Linux and Multi Boot Operating System and latest OS.

Learning Outcomes:

Upon Completing the Course, Student will able to: learn the knowledge of hardware parts and Assemble a computer System and Installation & Uninstallation of Software.

BOOKS RECOMMENDED:

- [1] PC AND CLONES Hardware, Troubleshooting and Maintenance B. Govinda rajalu, Tata Mc-graw-Hill Publication
- [2] PC Troubleshooting and Repair Stephen J. Bigelow Dream tech Press, New Delhi.
- [3] Windows XP Professional and Windows 7 Edition By BPB Publication.
- [4] Red Hat Linux By BPB & SYBEX publication.

List of Assignments:

1. To study motherboard.
2. Study of Processor.
3. To study SMPS and UPS.
4. To study the CD-ROM and DVD-ROM.
5. To study working of keyboard and mouse.
6. To study different ports and slots.
7. To study various types of Cables & Connectors.
8. Study of monitors.
9. To study different types of printers.
10. DOS Commands (Internal and External).
11. To study Floppy Disk Drive.
12. Installation of different Operating Systems.
13. Installation of different device drivers.
14. Installation of different Application Softwares.
15. Assembling and Disassembling of a Computer System.