

Information Technology Trainer Workshop I (IT – 1001)

Course Code	IT-1001	Credits-4	L -1, T-0, P-4
Name of the Course	Information Technology Trainer Workshop I		
Lectures to be Delivered	63 (L= 13, Lab Sessions = 20 (2 Hr Each))		
Semester End Examination	<i>Max. Marks: 50</i>	<i>Min. Pass Marks: 40</i>	Maximum Time:3hrs
Laboratory Continuous Assessment	Lab work 30%, Lab Record 25%, Viva/ Hands on 25%, Attendance 20%)	<i>Max. Marks: 50</i>	<i>Min. Pass Marks: 25</i>

Instructions for paper setter/ Candidates

Laboratory examination will consist of two parts:

- (i) Performing a practical examination assigned by the examiner (25 marks)
- (ii) Viva-voce examination (25 marks)

Viva-voce examination will be related to the practicals performed / projects executed by the candidate related to the paper during the course of the semester.

This workshop will provide training of hardware and software theory of a computer based on Pentium IV CPU with windows 98 as an operating system with DMP/ Deskjet Printer/ Laser Printer.

(i) Study of Computer Mother board-

a) CPU, DMA, Wait state, RAM/ROM, NMI, Logic Address, reset, I/O Ports, Device Drivers, Power Management, Block Diagram.

(ii) Study of bus, Slots and Ports-

- a) ISA, EISA, VESA, PCI, MCA, AGP, USB, AMR
- b) Parallel, Serial – RS 232C, USB

(iii) Study of Memories on a PC-

- a) Memory - Types, Selection, Installation
- b) ROM BIAS - Types, Setup, Installation
- c) Floppy Drive – Types, R/W head, Control Card, Spindle Motor, Stepper Motor, Termination Resistor, Block Diagram, write protect, Testing.
- d) Hard Disk- Jumper Setting, configuration, HDC, Installation Software, Testing, Block Diagram.

(iv) Study of Input/ Output Devices-

- a) Monitor – Types, Working Principle, Configuration, modes, Scanning, Block diagram Adapter Cards – Types, Dot pitch, Resolution
- b) Keyboard – Types, Construction, Working Principle.
- c) Mouse – Types, Construction, Working Principle

(v) Study of Hardware, Accessories (Mechanical/ Electrical)-

- a) Cabinet – Types, Selections
- b) S.M.P.S. – Rating, Green PC, EPA Compliance
- c) Cables – HD Cable, FDD Cable, Printer Cable.
- d) Connectors – 9 pin M/F. 25 Pin M/F

(vi) Study of Printers –

a) Printers – Types, construction, working Principle, Fonts, Desk Jet, Dot Matrix, Laser Jet, Line Printers, Plotters, Block Diagram

(vii) Study of Multimedia Hardware Modules

- (a) CDROM drive – jumper setting, Installation, Cables, Block diagram, Configuration
- (b) DVD drive – Types, Working Principle, Installation, Configuration

- (c) Speakers/Mike – Different Types
- (d) Tuner Cards – Different Types
- (e) Digital Cameras – Different types
- (f) Video Conferencing Kit.

(viii) Study of Clean Power Supply Equipments

- (a) CVT's
- (b) UPS

NOTE :

Industrial visits can be undertaken to various industries available in the vicinity of the concerned Engineering College/ Institutes. One project at the end of semester has to be submitted by a group of six students