

BASIC OF COMPUTER & INFORMATION TECHNOLOGY

Subject Code 00202	Theory			No of Period in one session : 60		
	No. of Periods Per Week			Full Marks	:	100
	L	T	P/S	Annual Exam.	:	80
	04	—	—	Internal Exam.	:	20

Rationale & Objective:

Today, all the workplaces and the living environmental are being computerised. In order to prepare diploma engineers to work in those environments, it is essential that they are exposed to various aspects of Information Technology such as understanding the concept of Information Technology and its scope, operating a computer, good working knowledge to work in DOS and Windows environment, using internet etc., form the broad competency profile of Diploma holders. This exposure will enable the students to enter the world with confidence, live in these environments in a harmonious way and contribute to the productivity.

<u>S.No.</u>	<u>Topics</u>	<u>Periods</u>
01	Introduction to Computer	
01.01	Basics of Computer	(06)
01.02	Input & Output Devices	(06)
01.03	Memory	(04)
01.04	Basics of Data & Information	(05)
02	Power Supply	(03)
03	Introduction to Operating System	(04)
03.01	DOS	(07)
03.02	Windows Operating System	(09)
03.03	UNIX	(05)
03.04	Windows NT	(05)
04	Computer & Communication	(06)
		(60)

CONTENTS:

TOPIC: 01 - INTRODUCTION TO COMPUTER:

History and evolution of Computers. Classification, application and limitations of different types of computers.

01.01	<u>Basics of Computer</u>	[06]
01.01.01	Computer Organisation, Block diagram of a Computer, C.P.U. Booting Process, Concepts of program & program implementation.	
01.01.02	Concepts of Hardware & Software; Operating System, System Software, Applications Software.	
01.01.03	Binary and other number systems and their conversion from one to other.	
01.01.04	Memory, bit, byte & word.	
01.01.05	ASCII and EBCDIC Codes - Machine Language, Assembly Language & High Level Language.	
01.01.06	Compilers, Assemblers, Loaders and Linkers.	
01.02	<u>Input & Output Devices</u>	[06]
01.02.01	Working of various Input Devices such as: <ul style="list-style-type: none"> • Key Board • Mouse • Joystick • Light Pen • Digitizers 	
01.02.02	Working of various Output devices such as: <ul style="list-style-type: none"> • Monitor/ V.D.U. (C.G.A., E.G.A., V.G.A., S.V.G.A.) • Different types of Printers and Plotters • Scanners 	
01.03	<u>Memory</u>	[04]
01.03.01	Primary & Secondary Memory, Primary Storage Media: RAM, ROM, PROM, EPROM, Cache, extended and expanded memory.	
01.03.02	Removable & non-removable secondary memory, Magnetic Tapes & Disks, CD ROM, DVD.	
01.03.03	Comparison of these devices based on technology (technical characteristics) & speed.	
01.03.04	Organisation of data on disks, tracks, sectors, cylinders.	
01.03.05	Heads, access time, seek time, latency time.	
01.03.06	Device controllers: serial port, parallel port, system bus.	
01.04	<u>Basics of Data & Information</u>	[05]
01.04.01	Introduction, Definition and application of data, difference between data and information.	
01.04.02	Data types, entities, attributes and relationship - Introduction only.	
01.04.03	Elements of Electronic Data Processing - different stages involved - processing methodologies. Transaction and Online Data Processing, Real Time Processing and their uses. Introductory Concepts of Text Processing and its applications.	

TOPIC: 02 - POWER SUPPLY:

[03]

- 02.01 N-E. Voltage, Earthings.
- 02.02 Working of Constant Voltage Transformer (C.V.T.) - KVA & KW ratings.
- 02.03 Working of Uninterrupted Power Supply (U.P.S.).
- 02.04 Connections & Cables.

TOPIC: 03 - INTRODUCTION TO OPERATING SYSTEM:

[04]

Concepts of Operating System, A brief history of operating system, definition.
Operating System classification, single user, multi-user, batch processing, time-sharing, real time and multi-operating system.

03.01 DOS

[07]

- 03.01.01 Introduction, Definition & Application of Operating System and types of OS, Introduction to DOS, Booting, File and Directory.
- 03.01.02 Commands: Internal & External commands, Using various commands such as Directory commands, File Management commands, General commands, DISK Management commands, Edit commands.
- 03.01.03 Batch file commands, Introduction to simple batch files.
- 03.01.04 DOS Utility commands
- 03.01.05 Security & Recovery of Data

03.02 Windows Operating System

[09]

- 03.02.01 Concept of windows, overview of Graphic User Interface, Mouse, ICONS.
- 03.02.02 Using the mouse & manipulation of ICONS, Menus and opening different applications simultaneously.
- 03.02.03 Basic commands of windows: CREATE, MOVE, COPY, DELETE, RENAME a file or folder. Copy a file to floppy disk.
- 03.02.04 Difference in Windows 95, 98 and 2000.
- 03.02.05 Working with documents: changing, moving, deleting and saving information.
- 03.02.06 Brief introduction of Windows Accessories like Notepad, Calculator etc.
- 03.02.07 Printing: Setting up a printer and printing a document.
- 03.02.08 Basic concepts of installing Windows and based packages.

03.03 UNIX

[05]

- 03.03.01 Overview of UNIX, Comparison of DOS with UNIX.
- 03.03.02 Log on and Log off, user passwords.
- 03.03.03 Basic files/ directory manipulation commands.
- 03.03.04 Concept of Shell and Kernel, Elements of V-I editor.

03.04 Windows NT

[05]

- 03.04.01 Overview of Windows NT
- 03.04.02 Concept of client server and Windows NT server
- 03.04.03 Log on and Log off Control Panel
- 03.04.04 Administrative tools, File Manager.

TOPIC: 04 - COMPUTER & COMMUNICATION:

[06]

- 04.01 Introduction to Networking, Need and advantages.
- 04.02 Introduction to Internet & Web Browser.
- 04.03 Concept of LAN and WAN, Internet Protocol and TCP/IP.
- 04.04 Applications of Internet like e-mail & browsing, PPP, SMTP, Terminal types.
- 04.05 Down loading information from internet.
- 04.06 Sending and receiving e-mail through standard e-mail clients.