

FC-1-01T: Fundamentals of Computer

Total Marks: 100
External Marks: 70
Internal Marks: 30
Credits: 6
Pass Percentage: 40%

Course: Fundamentals of Computer	
Course Code: FC-1-01T	
Course Outcomes (COs)	
After the completion of this course, the students will be able to:	
CO1	Learn the basic knowledge of computer hardware and software
CO2	Get basic knowledge of number system
CO3	Gain knowledge of computer languages such as machine language, assembly language, high level language, 4GL.
CO4	Learn hands on experience with operating systems
CO5	Learn the computer networks, Information Technology and Society

Detailed Contents:

Module No.	Module Name	Module Contents
Unit 1	Introduction of Computer	Characteristics of the Computer, Block diagram of a Computer, Classification and Generations of Computer, <i>Input Devices</i> : Keyboard, Mouse, Trackball, Space ball, Joystick, Light pen, Touch screen, Digitizer, Data Glove, Scanner, Speech Recognition Devices, Optical Recognition Devices: OMR, OBR, OCR, MICR, Video Cameras, <i>Output Devices</i> : Monitors, Printers and its types, Plotters and its types, Speakers, Multimedia Projector.
Module II	Number System	Concept of Bit and Byte, Number System: Binary, Octal, Decimal and Hexadecimal System, Conversion from one system to the other. Binary Arithmetic: Addition, subtraction and multiplication. 1's compliment, 2's compliment, Subtraction using 1's compliment and 2's compliment.
Module III	Computer Languages	Machine language, assembly language, high level language, 4GL. <i>Language Translators</i> : Compiler, Interpreter, and Assembler. <i>Software</i> : Types of Software: System Software, Application Software, and Firmware. <i>Memories</i> : Memory Hierarchy, Memory Types: Magnetic core, RAM, ROM, Secondary, Cache, Overview of storage devices: floppy disk, hard disk, compact disk,

		tape.
Module IV	Operating System	Functions of Operating System, Types of Operating System, Turning on a computer, desktop, taskbar, start menu, booting up, Desktop, Shortcut, Icons, Recycle Bin, Start Menu, My Computer, Computer's Devices and Drives, Storage, Removable Storage, CD/DVD Drive, floppy drive, and USB flash drive, Hard drive, Control Panel, The Window, Parts of Window, File Explorer, Files, Folders, Directories, Command, Menus, Keyboard, Function Keys, Normal Keys, Special keys, Direction keys, Numeric Keypad, Numeric Keys, Mouse: Left button, Right Button, Windows Accessories, Sharing Information between Programs. Virus, Antivirus, Peripherals can use with your computer.
Module V	Computer Networks	Components of data communication, modes of communication, standards and organizations, Network Classification, Network Topologies; Network Types, Transmission media, network protocol; layered network architecture. Basic of Computer networks: LAN, MAN, WAN.
Module VI	Information Technology and Society	Applications of Information Technology in Business and Industry, Railway, Airline, Entertainment, Banking, Insurance, Inventory Control, Hotel Management, Education and Training, Mobile Phones, Information Kiosks, Weather Forecasting, Scientific Application.

Books

<ol style="list-style-type: none"> 1. Pradeep K., Sinha, "Computer Fundamentals: Concepts, Systems & Applications", BPB 2. Rajaraman V, "Fundamentals of Computers", PHI 3. RS Salaria, "Computer Fundamentals", Kanna Publication, 1st Ed., 2017 4. E Balagurusamy, "Fundamentals of Computers", Mc Graw Hill, 2012 5. Glenn Brookshear, "Computer Science: An Overview", Pearson, 2012
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