

## FC-1-01T: Fundamentals of Computer

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

<b>Course: Fundamentals of Computer</b>	
<b>Course Code: FC-1-01T</b>	
<b>Course Outcomes (COs)</b>	
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
<b>Unit 1</b>	<b>Introduction of Computer</b>	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.
<b>Module II</b>	<b>Number System</b>	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.
<b>Module III</b>	<b>Computer Languages</b>	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.
<b>Module IV</b>	<b>Operating System</b>	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.
<b>Module V</b>	<b>Computer Networks</b>	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.
<b>Module VI</b>	<b>Information Technology and Society</b>	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"> <li>1. Pradeep K., Sinha, "Computer Fundamentals: Concepts, Systems &amp; Applications", BPB</li> <li>2. Rajaraman V, "Fundamentals of Computers", PHI</li> <li>3. RS Salaria, "Computer Fundamentals", Kanna Publication, 1<sup>st</sup> Ed., 2017</li> <li>4. E Balagurusamy, "Fundamentals of Computers", Mc Graw Hill, 2012</li> <li>5. Glenn Brookshear, "Computer Science: An Overview", Pearson, 2012</li> </ol>
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