Information Technology [Minor]

UNIT - I

Introduction, Characteristics of Computers, Block diagram of computer, Types of computers and features: Mini Computers, Micro Computers, Mainframe Computers, Super Computers. Types of Programming Languages: Machine Languages, Assembly Languages, High Level Languages, Translators: Assembler, Compiler, Interpreter and Linkers, Operating system concepts, Types of OS, Functions of OS.
Lectures: 15

UNIT - II

I/O Devices: Keyboard, Mouse, Scanner, Light pen, Trackball, Joystick, Bar code reader, OCR, OMR, MICR, Digitizer; Monitor, Printer, Plotter etc., Memory concepts, Types of Memory (Primary and Secondary): RAM, ROM and its types, Secondary Storage Devices (Magnetic tape, Magnetic Disk (FD, HD), Optical Disk (CD, DVD), Pen drive). Data Organization: Drives, Files, Directories.
Lectures: 15

UNIT - III

Basic elements of a communication system, Data transmission modes, Data Transmission speed, Data transmission media, Digital and Analog Transmission, Network topologies, Network Types (LAN, WAN and MAN), Client and Servers, Intranet, Extranet. Internet: Introduction to Internet, Terminologies related to Internet: Protocol, Domain name, IP address, URL, World Wide Web, Connecting to the Internet.
Lectures: 15

UNIT - IV

Introduction to Big Data: Types of digital data, Big Data architecture and characteristics, Big Data technology components, Big Data importance and applications. Introduction to Blockchain: Structure, Operational aspects of Bitcoin Block, Compare different types of Blockchains, Protocols, Payment mode code execution.
Lectures: 15