

**B.Sc.(CS) Semester I**  
**Paper II**  
**FUNDAMENTALS OF INFORMATION TECHNOLOGY**

**UNIT - I :**

Basic Components of Digital Computers: Block Diagram. CPU: Functions of Each Unit: Primary Memory, ALU and CU, Instruction format. Bus: Data, Control and Address Bus Number Systems: Binary, Octal, Decimal, HexaDecimal, Their Conversions, Binary Arithmetic. ASCII, BCD, EBCDIC. Language Evolution : Generation of Languages : Machine, Assembly, High Level Languages. Characteristics of Good Language Translators : Compiler, Interpreter and Assembler. Source and Object Program.

**UNIT - II :**

Memory: Static & dynamic, RAM, ROM, PROM, EPROM, EEPROM, flash and Cache. Storage Devices: Hard Disk, Zip Disk and Optical Disk. Pen Drive, Blue Ray

**UNIT - III :**

Input Devices: Keyboard, Mouse, Light Pen, Touch Screen, Voice Input , MICR, OCR, OMR, Barcode Reader and Flatbed Scanner. Output Devices: VDU, Printers: Dot Matrix, Laser and Inkjet. Plotters: Drum, Flat-Bed and Inkjet.

**UNIT - IV :**

Network: Network terminology, Topologies : Linear, Circular, Tree and Mesh. Types of Networks: LAN, WAN, MAN. Repeaters, Bridge, Routers, Brouters and Gateway. Modem for Communication between pc's, wi-fi network, Introduction of Bluetooth and Infrared devices. Network protocols. Architecture : Peer-to-Peer, Client/Server.