

Part-1- Hardware:

- **1.1 Introduction of Computer.**
- **1.2 Types of Computers:**
 - 1.2.1 Supercomputer.
 - 1.2.2 Mainframe computer.
 - 1.2.3 Server Computer.
 - 1.2.4 Personal Computer (PC).
 - 1.2.5 Tablet and Smartphones.
- **1.3 Hardware Vs. Software and computing process.**
- **1.4 Input/Output (I/O) Units and Peripherals:**
 - 1.4.1 Keyboard.
 - 1.4.2 Mouse.
 - 1.4.3 Touchscreen.
 - 1.4.4 Barcode Reader.
 - 1.4.5 Scanner.
 - 1.4.6 Webcam.
 - 1.4.7 A keyboard, video, mouse (KVM)Switch.
 - 1.4.8 Media card reader.
 - 1.4.9 Digitizers.
- **1.5 Computer Case and Buttons and Ports on a Computer Case.**
- **1.6 Introduction of Motherboard.**
 - **1.6.1 Types of Motherboards:**
 - 1.6.1.1 Advanced Technology Motherboard (AT).
 - 1.6.1.2 Advanced Technology extended Motherboard (ATX).
 - 1.6.1.3 New Low-Profile Extended Motherboard (NLX).

- **1.6.2.1 Motherboard Components:**
- 1.6.2.2 Central Processing Unit (CPU).
- 1.6.2.3 Random Access Memory (RAM).
- 1.6.2.4 Basic Input Output System (BIOS).
- 1.6.2.5 Complementary Metal-Oxide Semiconductor (CMOS).
- 1.6.2.6 Capacitors.
- 1.6.2.7 Coils.
- 1.6.2.8 Super Input/Output.
- 1.6.2.9 Jumpers.
- 1.6.2.10 Integrated Circuit (IC).
- 1.6.2.11 North and South Bridge.
- 1.6.2.12 Intel Hub Architecture (IHA).
- 1.6.2.13 Universal Serial Bus (USB).
- 1.6.2.14 Sony and Phillips Digital Interconnect Format (S/PDIF).
- 1.6.2.15 Optical Drive Audio Connector (CD-IN).
- 1.6.2.16 System Panel Connector.
- 1.6.2.17 P4 Connector.
- 1.6.2.18 Floppy Connection or Integrated Drive Electronics (IDE).
- 1.6.2.19 Serial Advanced Technology Attachment (SATA).
- 1.6.2.20 ATX power supply connector.
- **1.6.2.21 Expansion slot:**
- 1.6.2.21.1 Industry Standard Architecture (ISA).
- 1.6.2.21.2 Accelerated Graphics Port (AGP).
- 1.6.2.21.3 Communication and Network Riser (CNR).
- 1.6.2.21.4 Peripheral Component Interconnect (PCI).
- 1.6.2.21.5 Peripheral Component Interconnect Express (PCI Express).

- **1.7 Additional Cards:**
 - 1.7.1 Video Card.
 - 1.7.2 Audio/Modem Riser (AMR).
 - 1.7.3 Sound Card.
 - 1.7.4 Network Interface Card (NIC).
- **1.8 Computer Cooling Systems:**
 - **1.8.1 Types of computer cooling systems:**
 - 1.8.1.1 Air and Liquid.
- **1.9 Storage Devices:**
 - 1.9.1 Hard Disk Drive (HDD).
 - 1.9.2 Solid-State Drive (SSD).
 - 1.9.3 Hybrid Hard Drive (HHD).
 - 1.9.4 Optical Storage Devices.
 - 1.9.5 Flash Memory Devices.
 - 1.9.6 Cloud and Virtual Storage.
 - 1.9.7 Redundant Array of Inexpensive Disk (RAID).
- 1.10 Power Supply.
- 1.11 Introduction to Printers.
 - **1.11.1 Types of printers:**
 - 1.11.1.1 Impact printer.
 - 1.11.1.2 non-impact printer.

Part-2-Networks:

- **2.1 Introduction to Networks.**
- **2.1.1 Types of Networks:**
- **2.1.1.1 Personal Area Network (PAN).**
- **2.1.1.2 Local Area Network (LAN).**
- **2.1.1.3 Wireless Local Area Network (WLAN).**
- **2.1.1.4 Wide Area Network (WAN).**
- **2.2 Introduction to Networking Devices:**
- **2.2.1 Hub Device.**
- **2.2.2 Switch Device.**
- **2.2.3 Router Device.**
- **2.2.4 Multilayer Switch Device.**
- **2.2.5 Modem Device.**
- **2.2.6 Server Device.**
- **2.2.7 Firewall Device.**
- **2.2.8 Wireless Access Point (WAP) Device.**
- **2.3 Network Cable:**
- **2.3.1 Coaxial Cable.**
- **2.3.2 Twisted-pair Cable.**
- **2.3.3 Fiber optic Cable.**
- **2.4 Network Topology.**
- **2.4.1 Types of Network Topology:**
- **2.4.1.1 Wired Topology:**
- **2.4.1.1.1 Mesh Topology.**
- **2.4.1.1.2 Star Topology.**
- **2.4.1.1.3 Bus Topology.**
- **2.4.1.1.4 Ring Topology.**

- **2.4.1.2 Wireless Topology:**
 - 2.4.1.2.1 Infrastructure Topology.
 - 2.4.1.2.2 Ad hoc Topology.
 - 2.4.1.2.3 Mesh Topology.
- 2.5 Open system interconnection (OSI).

Part-3-Software:

- **3.1 Overview of software and operating systems:**
 - 3.1.1 Microsoft operating systems.
 - 3.1.2 Linux operating systems.
- 3.2 Install and Configure Windows 10 Operating System.
- 3.3 Backup operating system.
- 3.4 Windows Command Line.
- 3.5 Define all physical components of a computer.
- 3.6 Define software files for a computer.
- 3.7 Create User.
- 3.8 Windows Command Line.
- 3.9 Save Mode.
- 3.10 Windows Security Settings.
- 3.11 Security and Sign in options.
- 3.12 Password Recovery.
- 3.13 Install Some Program.
- 3.14 Install and Configure Linux Ubuntu Operating System.
- 3.15 Troubleshooting Windows.