COMPUTER -- FUNDAMENTAL

**Computer** – Computer is a Electronic Device That Use For Fast Calculation And Store Data For Future Use.

**Father Of Computer** :– Charles Babbage

**Year**:- 1822 in “Analytical Engine ” is First Computer by Charles Babbage

Word First Computer in **1945** :- **ENIAC** (Electronic Numerical Integrator and Computer)

**USE**:- Store, School , Collages, Office, E-Mitra , Company etc…

**Parts Of Computer :-**

1. **Hardware** – All Touchable Part
2. **Software** –All Non Touchable Part

**Hardware:-**

1. **Input-** Mouse , Keyboard , Scanner , Joystick , Game Remote
2. **Output** – Speaker , Earphone / Headphone, Printer

**Parts Of Printer:-**

1. **Impact**- Dot Matrix Printer , Daisy Wheel Printer , Line Printer
2. **Non Impact**- Thermal Printer , Laser Printer

**Printer Speed Test Machine:-**

**PPM**- Page Per Minute

**LPM**- Line Per Minute

**CPM**- Character Per Minute

**Software:-**

1. **System Software / OS (Operating System):-** Windows 7/8/10/11 , Kali Linux , Parrot OS , Mac OS, Ubuntu OS , Red Hat OS
2. **Application Software:-** MS Office, photo Editing , Video Editing, VLC , Chrome , etc..

**INPUT**  **PROCESSING** **OUTPUT**

**CPU – Central Processing Unit**

|  |
| --- |
| **A.L.U** (**Airthmatic Logical Unit**) |
| **C.U** (**Control Unit**) |
| **M.U** (**Memory Unit**) |

**RAM** – Random Access Memory = 4gb, 8gb, 16gb, 64gb etc…

**ROM** – Read Only Memory = 512 GB Hard Disk, 1 TB ,

**SSD: –** Solid- State Storage Device = 128Gb , 256GB , 2 TB

**Monitor Type:-**

**CRT** – Cathode Ray Tube

**LCD** – Liquid Crystal Display

**LED** – Light Emitting diode

**How To Start Computer:-**

1. **Desktop Computer**
2. **Laptop or Netbook Computer**
3. **Apple Computer (Mac)**

**Desktop**=

**GUI -** Graphical User Interface

**CLI -** Command Line Interface

**File / Folder- Cut, Copy, Paste, Rename, Delete, Hide, Extension Changing (Antivirus Too Files / Folder Scanning)**

**INTERNET**

**Network Of Network**

**PAN** – **Personal Area Network (Hotspot, Home WiFi, Laptop)**

**LAN** – **Local Area Network (Home, Office, Company , Institute etc)**

**CAN** **– Campus Area Network (Collage, School, Hostel )**

**MAN** – **Metropolitan Area Network (City, Village, State)**

**WAN** – **Wide Area Network (World, Setelite , specific geographic area , internarional branch offices)**

**SAN** – **Storage Area Network (Youtube , Google Cloud, All Drive)**

**ISP** **– Internet Service Provider**

**Service Name :-** **BSNL + Jio + Airtel + Vodafone idea etc…**

**USER – Man / Women / Child / Machine**

**Device – Computer, Laptop, Tablet Mobile etc…**

**IP – Internet Protocol ( Area Network)**

**MAC – Media Access Control**

**Web Browser – Chrome , Firefox , Cyberfox , Safari , Opera , Tor etc…**

**URL – Uniform Resource Locater**

**(URL Example:- https://www.google.com/government/page2/xyz/Results.html)**

**https- protocol (Hyper Text Transfer Protocol Secure)**

**www- server (Word Wide Web)**

**Service Name : Google.com, facebook ,twitter , Instagram ;**

**Domain – .com , .edu , .in , .govt , . pak ;**

**Modem** – **Analog Signal to Digital Signal , Digital Signal to Analog Signal;**

**Wire and Wireless=**

**Wire-**

**Twisted Pair Cable- Home Wires , poll Wire**

1. **(STP - shielded twisted pair cable - 3 types protection – plastic , iron , metal )**
2. **(UTP- unshielded twisted pair cable – 1 type protection - Only Plastic)**

**Coaxial cable - T.V Disk Cable, CCTV , Bnc connector**

**Optical Fiber Cable - Osion Cable , Hight Range- CCTV, Cable T.V use for Nasa**

**Wireless-**

**Radio Waves- Radio Tower , Wireless Radio**

**Micro Waves- Tower, satellite , celluler phone**

**Infrared Waves- T.V Remote , Mouse , Bluetooth , Wifi**

**Data Transfer Mode= 3types -**

**Simplex= Sender – Reciver**

**Exm:- T.V , Radio ;**

**half duplex= Sender – Reciver**

**Reciver – Sender**

**Exm:- Mobile Phone , Telephone ;**

**full duplex= Sender – Reciver**

**Reciver - Sender**

**Exm:- Whatsapp , FB , Insta, Social Media, Etc ;**