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2022

Pictorial Presentation...

GS

Drishti

Computer

An Introduction



Read **E-Book**
Be **Updated**

See Cover Page - 2

**CLOUD
COMPUTING**

It is a technology in which by using internet users store their data on **Internet** instead of storing them in the computer hard drive.

**CASH
BACK ₹50**



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Preface

There are two main objectives of **Pictorial Presentation** of various subjects of **General Studies**. The **First One** - to gain confidence in studying the entire subjects in a short time. The **Other One** - these facts should get imprinted on the brain of the readers. Consequently the aspirants will be able to remember the facts within no time in the examination hall. Our aim is that an aspirant should be able to solve at least two questions more from each topic because of imbibing this very effective pictorial representation.

A good book is one that depicts and imbibe happiness.

While presenting this subject matter, it has been kept in mind that only the important and relevant facts should get a place in this presentation along with no factual error at all. Moreover only the Purvavalokan related facts have been incorporated here. While presenting this book before the readers, we have worked hard to assay all key facts with utmost accuracy. Undoubtedly, we are in a position to say that there is 99.9 percent accuracy or above. This book is **well designed, handy, and appropriate for revision at the eleventh hours of the examination with appropriate design elements and a sense of originality.**

Despite all efforts to make this book very efficacious, if any doubt arises regarding facts, readers are always welcomed to contact on our **WHATSAPP platform**. You may WHATSAPP on mobile number **8081655444**. Your doubts will be resolved within 72 hours compulsorily.

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 ♦ Who governs the Internet? (Domain Name Register, ISOC, IAB, ICANN, IRTF, W3C and IETF) □ **Used Protocols on Internet (TCP/IP, SMTP, FTP, HTTP, Telnet, Gopher)** ♦ Two versions of IP address (IPv4 and IPv6)
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 ♦ Address Book (Mailing List, Forwards, Drafts)
 ♦ Elements and types of E-mail message ♦ Benefit and Loss of web based and pop based e-mail
 ♦ Security of e-mail message and internet revolution ♦ Telnet or Remote Login ♦ Instant messaging ♦ Whatsapp, Telegram, Wechat, Facebook, Messenger, Internet, Telephony
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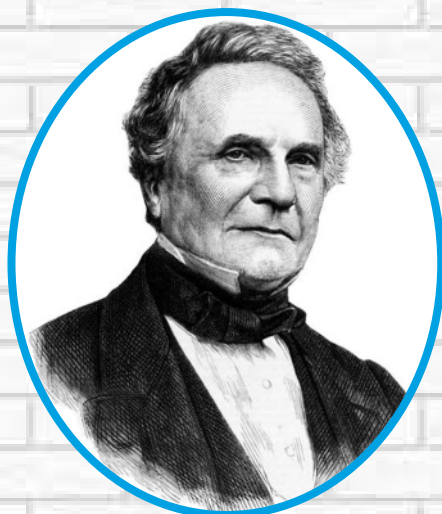
♦ www ♦ Difference between internet and www
 ♦ Internet Protocol Address ♦ Seven Layers of OSI model ♦ Major Tips of OSI Model ♦ Benefits of Web applications ♦ Used Languages on www (HTML, XHTML, XML, Java Script, PHP, SQL)
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 ♦ Cookies, Proxy Server and its Functions, Firewall ♦ Computer Virus and its effect, Rootkit, Types of Virus (Program, Boot and Multi Partite Virus), Sub-Types of Computer Virus, Malware, Worm, Spyware, Hackers and Crackers ♦ Trojan Horse and Adware ♦ Time Bomb Virus, Password Cracking ♦ Scare Ware, Packet Sniffing
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Charles Babbage
Father of Computer

Computer & its Meaning

The meaning of the word



Computer



is derived from the English word



Compute



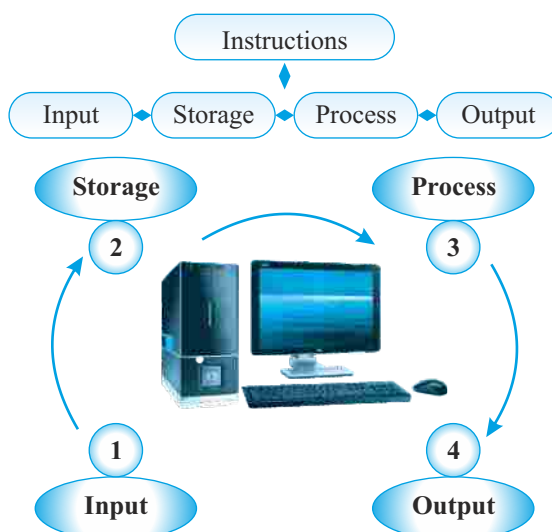
which means to calculate so it is called a



Computer

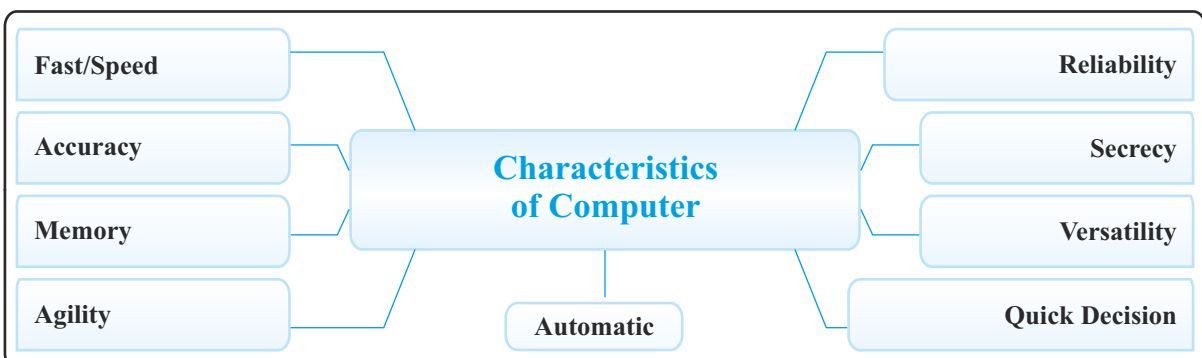
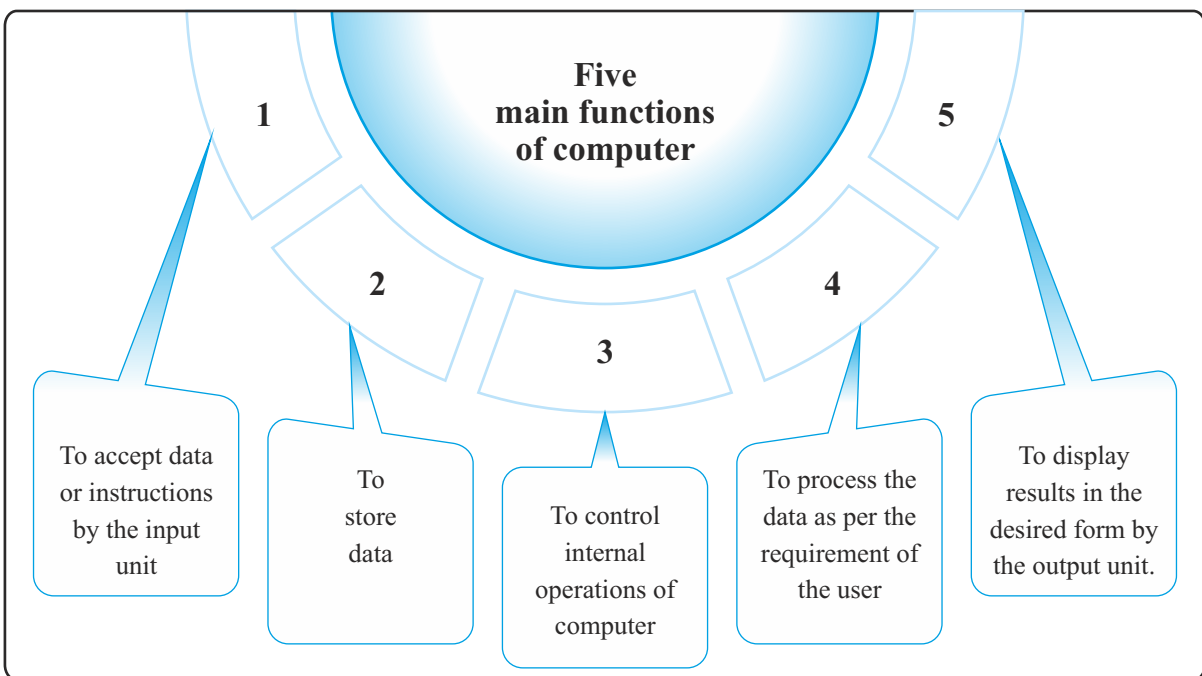
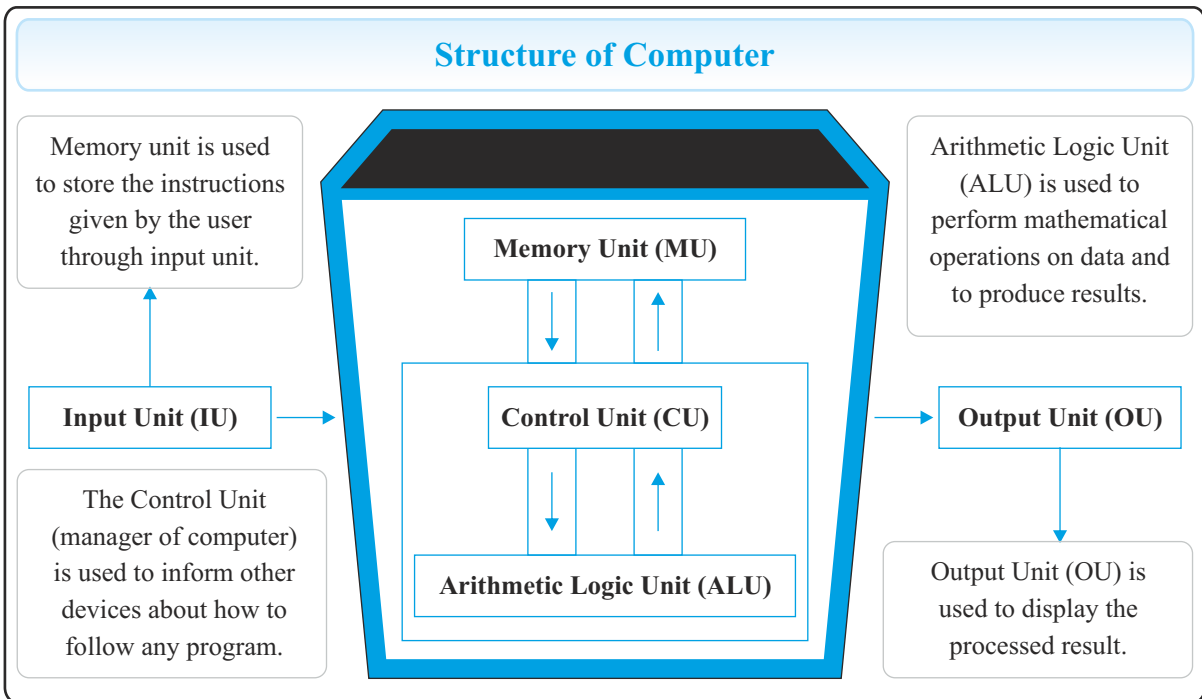
Computer's Working System

- Giving instructions to the computer by the user through an input device.
- To store instructions in a storage device by a computer.
- To process the instructions stored by CPU.
 - To display the result obtained by CPU to the output device.

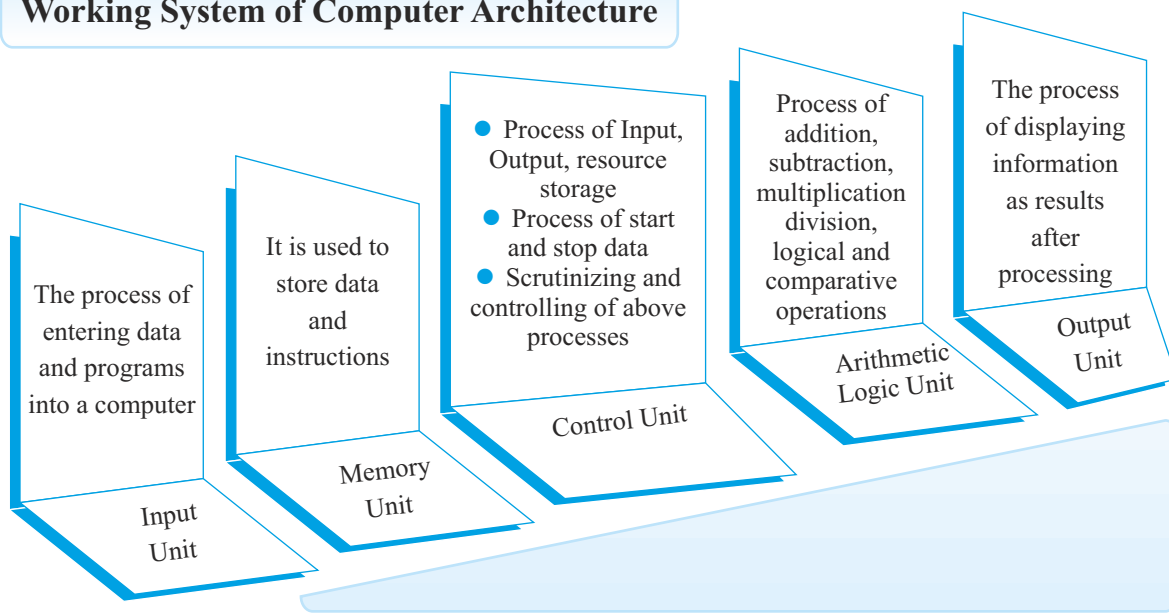


Full Form of Computer

C	Common
O	Operating
M	Machine
P	Purposely
U	Used for
T	Technological and
E	Educational
R	Research



Working System of Computer Architecture



Peripheral Devices



- Devices connected externally to a computer.
- It is used for special purposes.



- Input Device
- Output Device



Example
Mouse,
Keyboard,
Monitor, Printer

Computer

Computer is made of hardware and software.

If hardware is the body of computer, software is its soul.

We can feel hardware by seeing and touching hardware physically.

We can neither touch software nor physically see it.

Areas/Applications of Computer

- Computers are being used in every field in the world

- In the field of education
- In Railways



- In Airlines



- In Hospitals

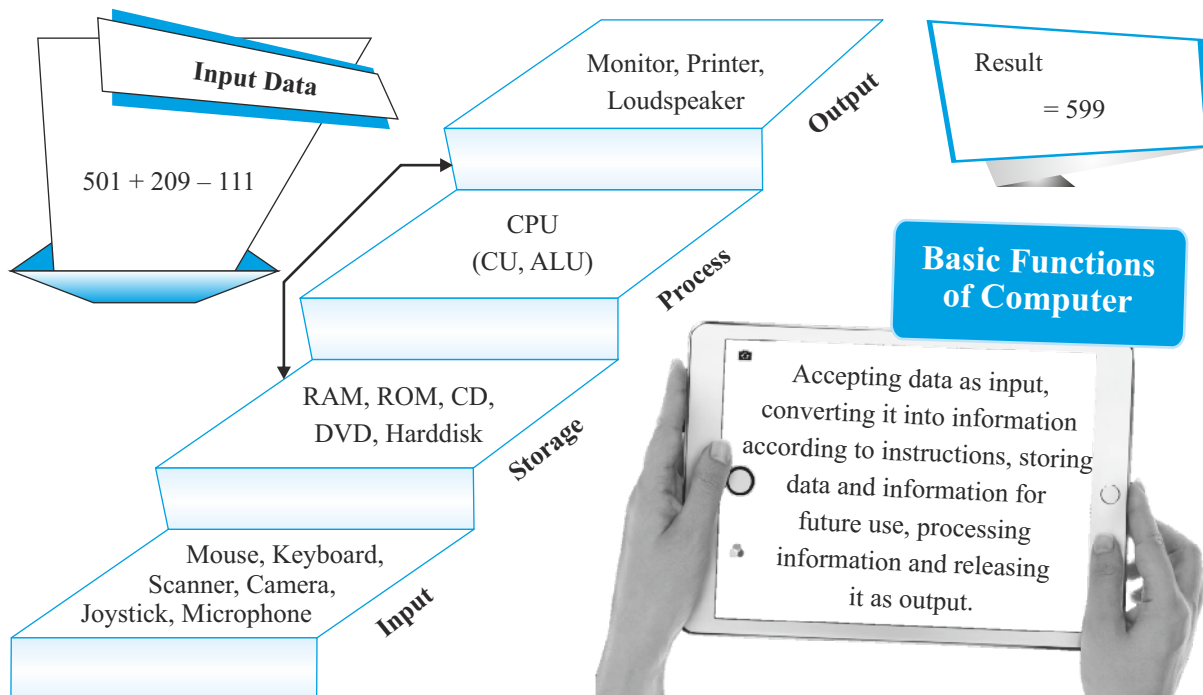


- In Business such as Film production Bank, etc.
- In Space



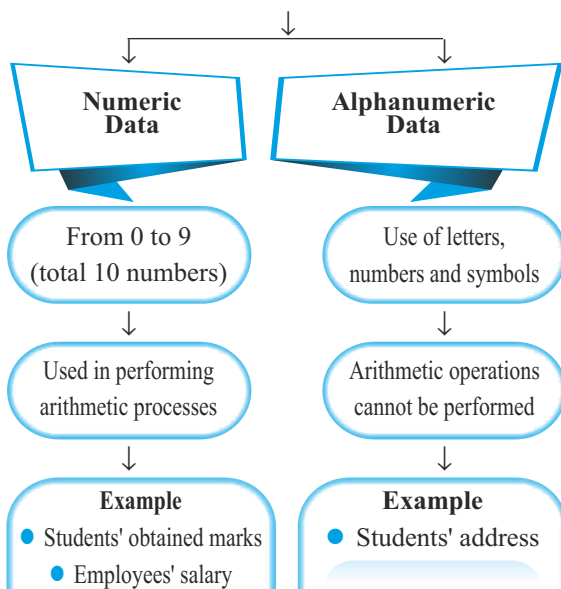
Definition

Computer is an automatic electronic machine used for various types of mathematical and logical calculations. It takes input (instruction) from users and processes (calculates) and provides output (result) accordingly.



Data and their types

A disorganized collection of raw facts and information without any meaningful conclusion.



➤ Information

- Data is derived from the analysis and compilation of data on the basis of utility.
- Data is a disorganized fact/data whereas information is an organized data.

➤ Instruction

- Instructions given to the computer to work.

➤ Program

- Set of instructions given to the computer.

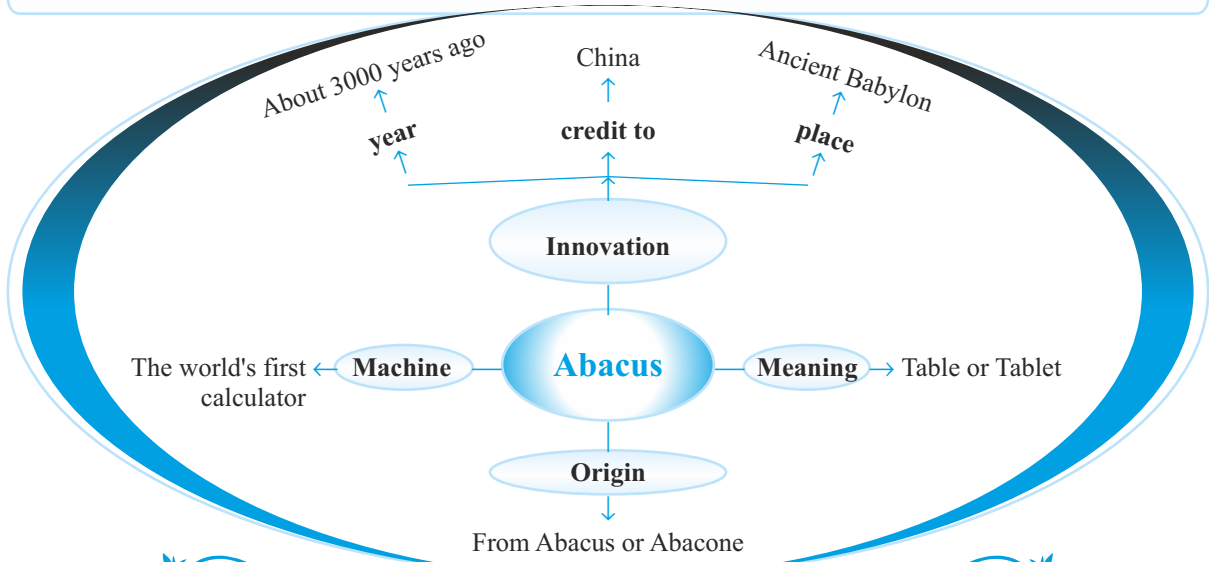
➤ Software

- A set of programs responsible for the successful implementation of various functions of the computer.

History of Computer

3000 years ago

Evolution & Development of Computer

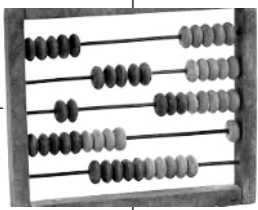


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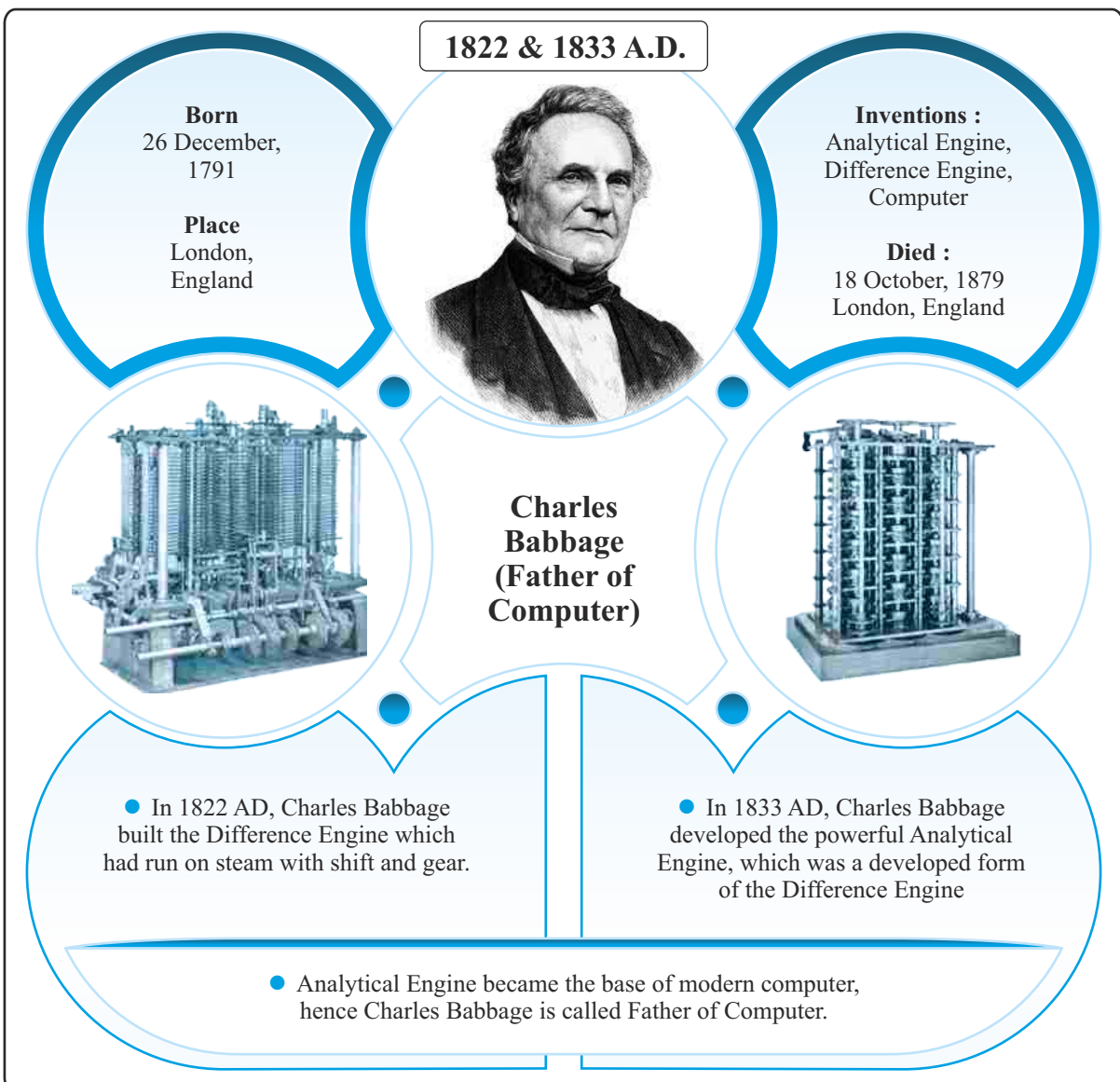
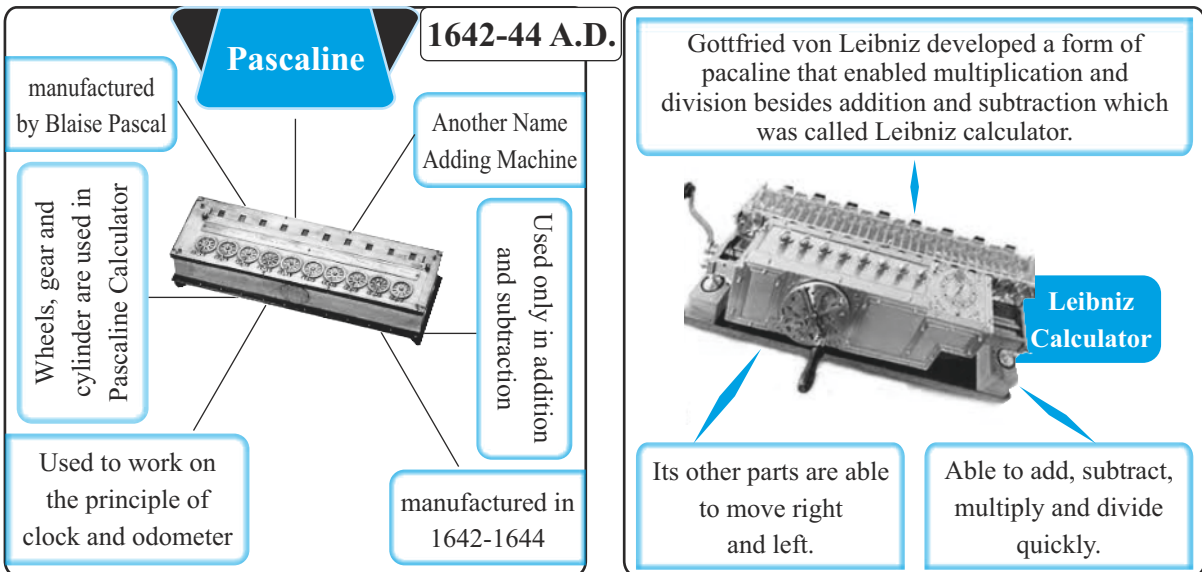
The History of computer starts from that time when man tried to calculate very large numbers with the help of a device.

Today, we know it as Abacus.

It includes the Babylonian counting system, the Greek counting system, the Roman counting system and the Indian counting system majorly.

Abacus	1617 A.D.	Napier Bones Device
<p>Wires and spherical beads are used in it</p> <p>An ancient calculator</p>  <p>Used to count the numbers</p> <p>Another Name Gintara</p>	<p>It was made of ivory or wood and metal in a set of rectangular rod.</p> <p>Manually operated calculation tool.</p> <p>Invented</p> <ul style="list-style-type: none"> By the Mathematician of Scotland, John Napier Bones in 1617. <p>Use • For Multiplication and division</p>	

• A teaching assistant device used to teach numbers to children at the primary level

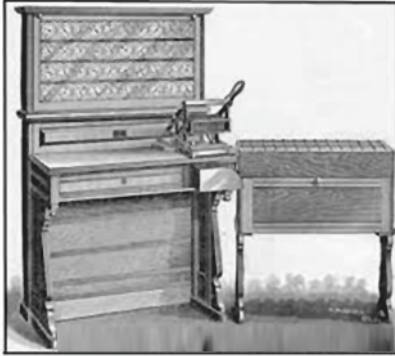


1889 A.D.

Hollerith Census Tabulator

➤ **Invention :**

By American Mathematician Herman Hollerith



➤ Year in 1889

➤ **Another Name -**
Electromechanical Punchcard Machine

➤ **Use -** To process census data in less time.

➤ Machine operated by electricity

➤ Punchcard reader is used to read data stored on punchcard

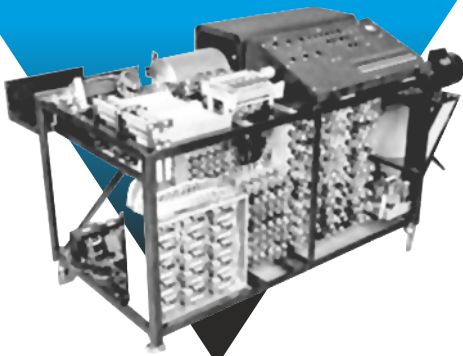
➤ Credit goes to Herman Hollerith for the invention of the Punchcard in the form of memory.

1939-1942

ABC Computer

ABC is an abbreviated form of Atanasoff Berry Computer

The First Automatic Electronic Digital Computer



Working on ABC was done between 1939-1942 and released in England by the scientists named John Atanasoff and Clifford Berry in 1942.

1944

MARK-I



➤ MARK-I was developed in collaboration with IBM (International Business Machine) and under the direction of Howard Aiken.

➤ The official name was Automatic Sequence Controlled Calculator.

➤ Harvard University renamed it as MARK-I.

➤ It was the world's first automated electro-mechanical computer.

➤ It had 500 miles length wire and more than 175000 connections.

➤ It was capable of doing a multiplication in 6 seconds and a division in 12 seconds.

1944

EDVAC

Development with the concept of Logical Design by John Von Neumann.

Manufactured at the Moore School of Electrical Engineering in Pennsylvania.

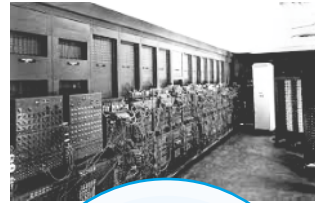


ENIAC inventors John Mauchly and J. Presper Eckert proposed the construction of EDVAC in Aug., 1944, which was later delivered to the Valistic Research Laboratory.

The EDVAC was a binary serial computer with additions, subtractions, multiplications, etc. and took time 864 microseconds with an average addition and 2900 microseconds with an average multiplication.

1943-1946

ENIAC



First general purpose electronic digital computer with complete turing.

Full Form –
Electronic Numerical Integrator and calculator.

Able to be reprogrammed to solve complete computing problems.

Developed by American scientists Jon Mauchly and J.Presper Eckert in 1946.

Do you know?

Lady Ada Augusta installed the first program in Analytical Engine, so she is known as the world first programmer. She is also credited with the invention of the Binary System.

An American Dr. Von Neumann contributed the most in the development of modern computer. He is also credited with storing both data and instructions in a Binary System (0 and 1).

1954

UNIVAC-I

Full Form :
Universal Automatic Computer.

Manufactured by
GEC
(General Electric Corporation)
in 1954.

Use
The first commercial computer UNIVAC-I used for business and general purpose.

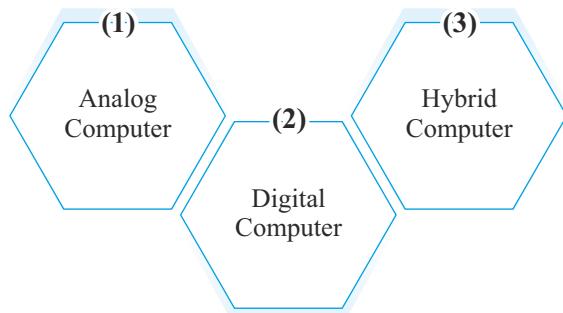
Designed
By John Mauchly and John Presper Eckert.

Classification of Development of Computer

Classification of Computer

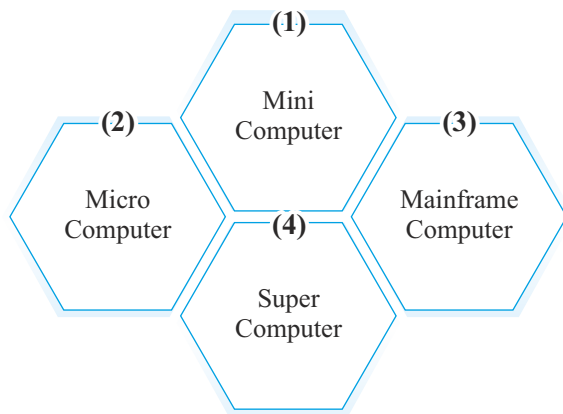
(A)

➤ Based on Working Technology



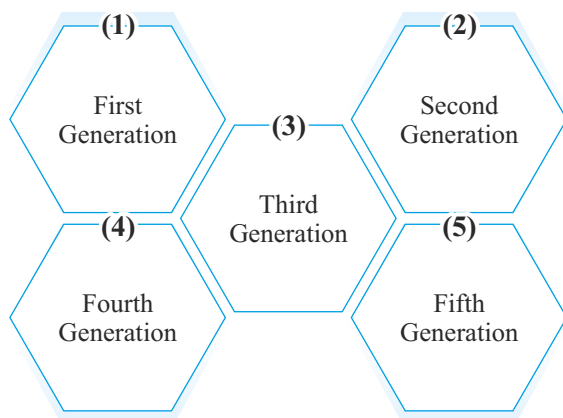
(B)

➤ Based on Size & Work

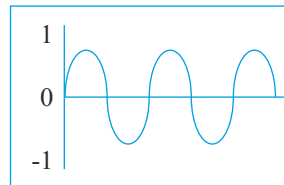
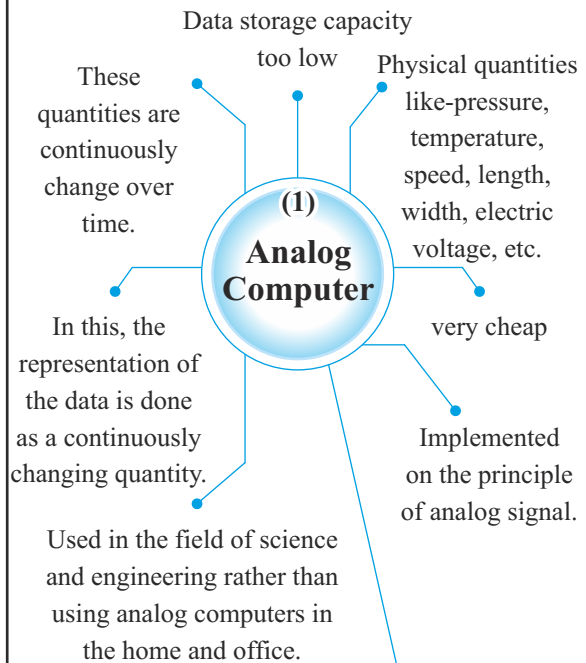


(C)

➤ Based on Hardware Usage



(A) Computers classified on the basis of Working Technology

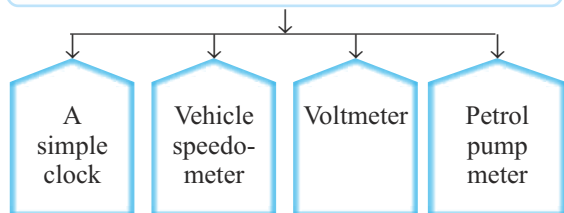


Analog signal

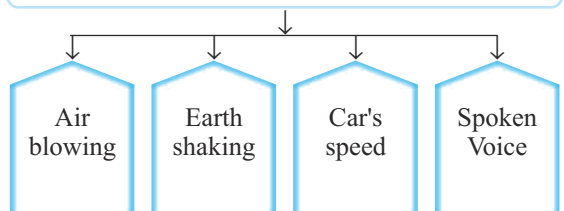


Analog computer

Examples of Analog Computer



Examples of Analog Signal



(2)

Digital Computer and its example



- Electronic signal is used to display data in it.

- Binary digits (0 and 1) is used for calculation.

- Used to denote data in the form of electronic pulse.

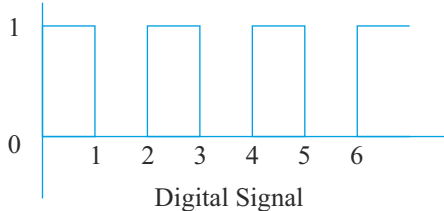
- Nowadays, digital computers are prevalent in the market.

➤ Example

Smartphone, Tab, Laptop, PC, Calculator, etc.

Characteristics

- Flexible
- Fast/Speed
- Accuracy
- Diligence
- Automatic
- Versatility



(3)

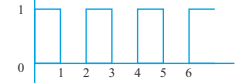
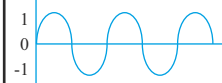
Mixed form of digital and analog

Designed for special work

Digital form is used for calculation and processing

Hybrid Computer and its example

Analog signal is used for input and output



Applications

- Airplane
- Petroleum exploration
- Hospitals
- Large industries

Examples

- Traffic control
- Ultrasound Machine
- Monitoring Machine
- Medical Field



Hybrid Computer

(B)

Computers classified on the basis of Size and Work

First mini computer manufactured in 1965.

Its size is almost equal to that of a refrigerator.

Larger in size and capacity than a micro computer and smaller than a mainframe.

Manufactured by DEC (Digital Equipment Corporation).

(1) Mini Computer

More than one microprocessors are used.

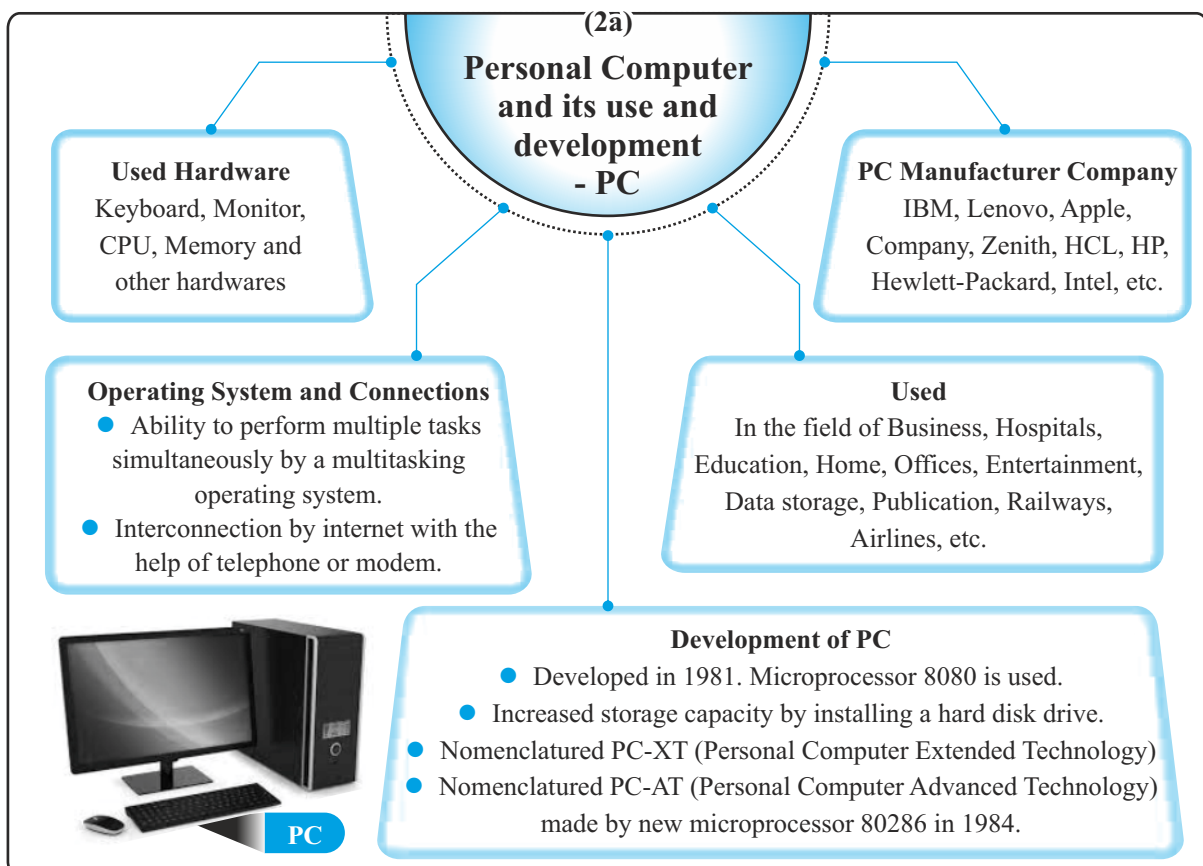
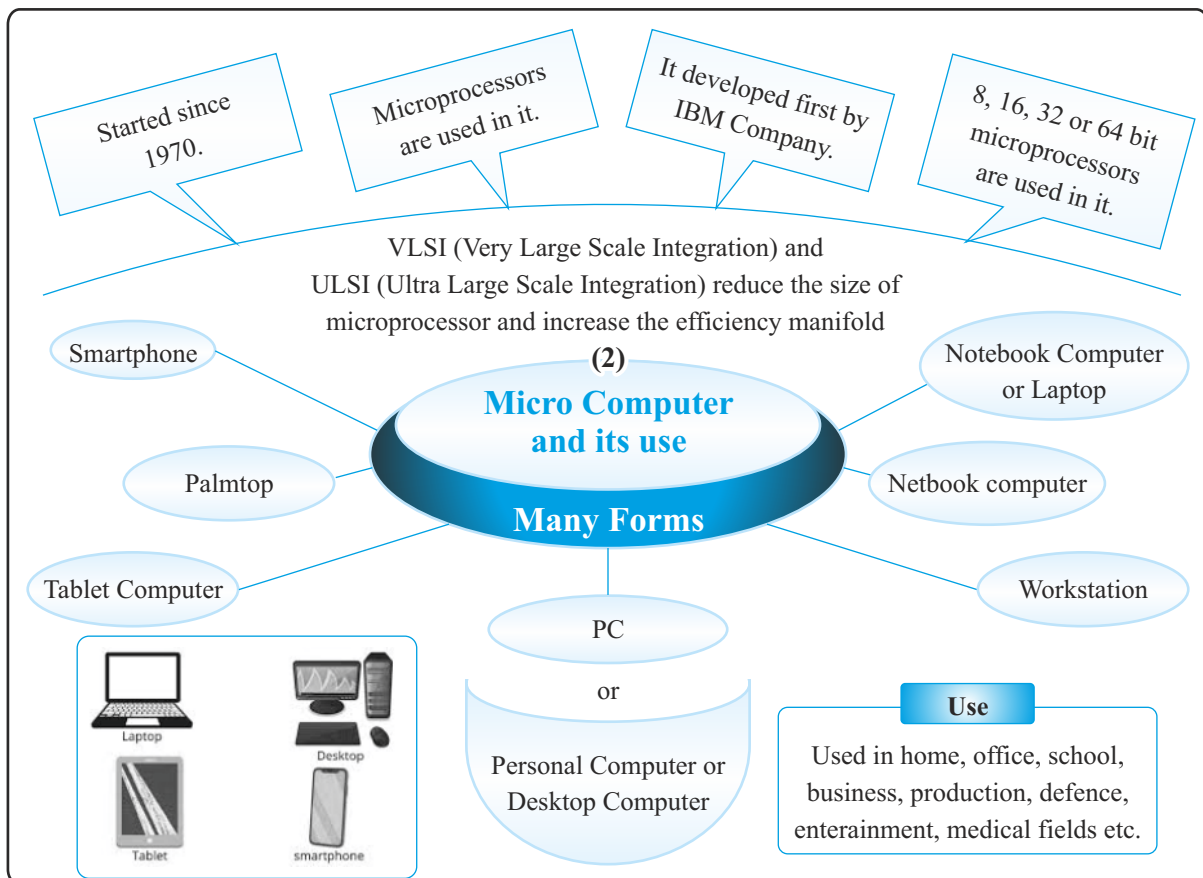


Mini Computer

Use

In passenger reservation, company, research and office, etc.

Multiple persons are capable of working at the same time.



(2b)

Workstation and its use

Workstations have more power than PC for e-mail, web surfing and word processing task.

Only single person is able to work at a time.

CAD, Animation, Data Analysis, Rendering, Efficient in making video and audio.

Typically powered by a Local Area Network connectivity and operated by multiuser operating system.

Ultra powerful PC built with more processing capacity, bigger storage, better display.

Use
It is used in the field of technical, scientific applications, engineering, building construction, study of simulation, etc.

➤ Notebook sized computer.

➤ Used for carrying anywhere in the briefcase.

➤ All features of a PC are present.

➤ Due to being used in the Lap, it is also popular by the name laptop.

➤ Developed by Adam Osborne in 1981.

Keyboard, Touchpad, Harddisk, Floppy disk drive, CD/DVD drive, Foldable LCD monitors, Chargeable batteries made by lithium ion, nickel cadmium and nickel metal hydride, etc.

Development

(2c) Notebook Computer and its development

Connectivity

Internet connectivity used with the help of Wifi and Bluetooth

Difference between Notebook and PC

➤ Nowadays, laptop computers are named as notebook computers.

➤ All the features of notebook are less than laptop's.

➤ Display screen in notebook is smaller than that of a laptop.

➤ The thickness and weight of the notebook is slightly less than that of the laptop.



(2d) Netbook

Features

- Smaller size, smaller screen
- low weight, low prices, built in camera
- Microprocessor with low capacity
- Headphone and microphone jacks
- Two or three USB ports
- Slots for memory card

The word 'Netbook' originated from 'Net' of Internet and 'book' of Notebook.

Use

- Used in connecting to the internet, surfing on www, sending and receiving e-mails, using social media, downloading or uploading audio or video files, viewing calendar, listening to music, writing and posting blogs, making call over VoIP etc.

Netbook

Popular Producer
Asus, Acer, Sylvania, Lenovo, Hewlett Packard (HP), Dell, MSI, Sony, Samsung

- A small, portable computer.
- Used for wireless communication.
- Lash with easy connectivity to the internet.

Another Name
Mini Laptop

Uses

- Used in Education, Health, Marketing
- Useful in reading books/newspapers, browsing the web, generating reports, collecting data, conducting surveys, project planning, online learning, day-planning, etc.

Types

Slate Tablet, Mini Tablet, Gaming Tablet, Booklet, Business Tablet, Phablet, 2-in-1 or Hybrid

(2e)

Tablet Computer

Parts

-Stylus (a type of touch pen), screen, external body, battery, operating system, power button, volume button and back button and application software.

Advantages

It is cheap for using in hand, carrying anywhere, using without keyboard, mouse, etc.

Disadvantage

- All features of computer are unavailable.
- Unable to shoot selfies or videos.
- Fewer features, higher prices.
- Risk of touchscreen breakage.



- The first sketch of the tablet was created by Alan Kay of Xerox Company in 1971.
- Tablet is a mobile computing device.
- Bigger than a smartphone but smaller than a laptop.
- Another name – Tablet computer, Tab or tablet PC and hand held computer.
- Keyboard and mouse are absented from it.
- All the works done through touchscreen or stylus pen.

(2f)
Palmtop



➤ **Meaning** - Computer working on Palm.

➤ Smaller in size.

➤ **Another Name** - Mini Laptop.

➤ Input by voice instead of keyboard.

➤ Used as a mobile phone in practice.

➤ **Use** - Useful in company, passenger-reservation, research, etc.

(2g)
Smartphone

This is a mobile phone



➤ Almost all the features of the computer are present.

➤ Touchscreen is used for input.

➤ Touchscreen is used for soft copy.

➤ **Features**

Calling, Messaging, Media player, PDA (Personal Digital Assistant), GPS, Digital Camera, etc.

➤ **Company and Operating System**

Google's Android and Apple's iOS.

➤ **Characteristics**

Touchscreen, Web browsing, Wi-Fi, Applications, Motion Sensor, Mobile Payment.



- Very Large in size.
- Too much storage capacity.
- Faster data processing speed.
- Multiple users are able to work at the same time.

Computer (CPU)



(3)

Mainframe Computer and its use

- Increase the processing capacity of two or more microprocessors by connecting them together.
- 32 or 64 bit microprocessor is used.

Operating System

- Time sharing and multiprogramming operating systems are used.

Use
Used in large companies,
Railway Reservation,
Defense,
Research,
Spaceology, etc.