

EVOLUTION OF COMPUTERS

DO THE FOLLOWING QUESTIONS

1. Initially who used computer and why .
2. Why computer was not used by small organisations and individuals earlier.
3. Name few places where computers are used .
4. The term '**computer**' is derived from which word .
5. What you do with the help of a computer .
6. Why computer is a **versatile** device ?

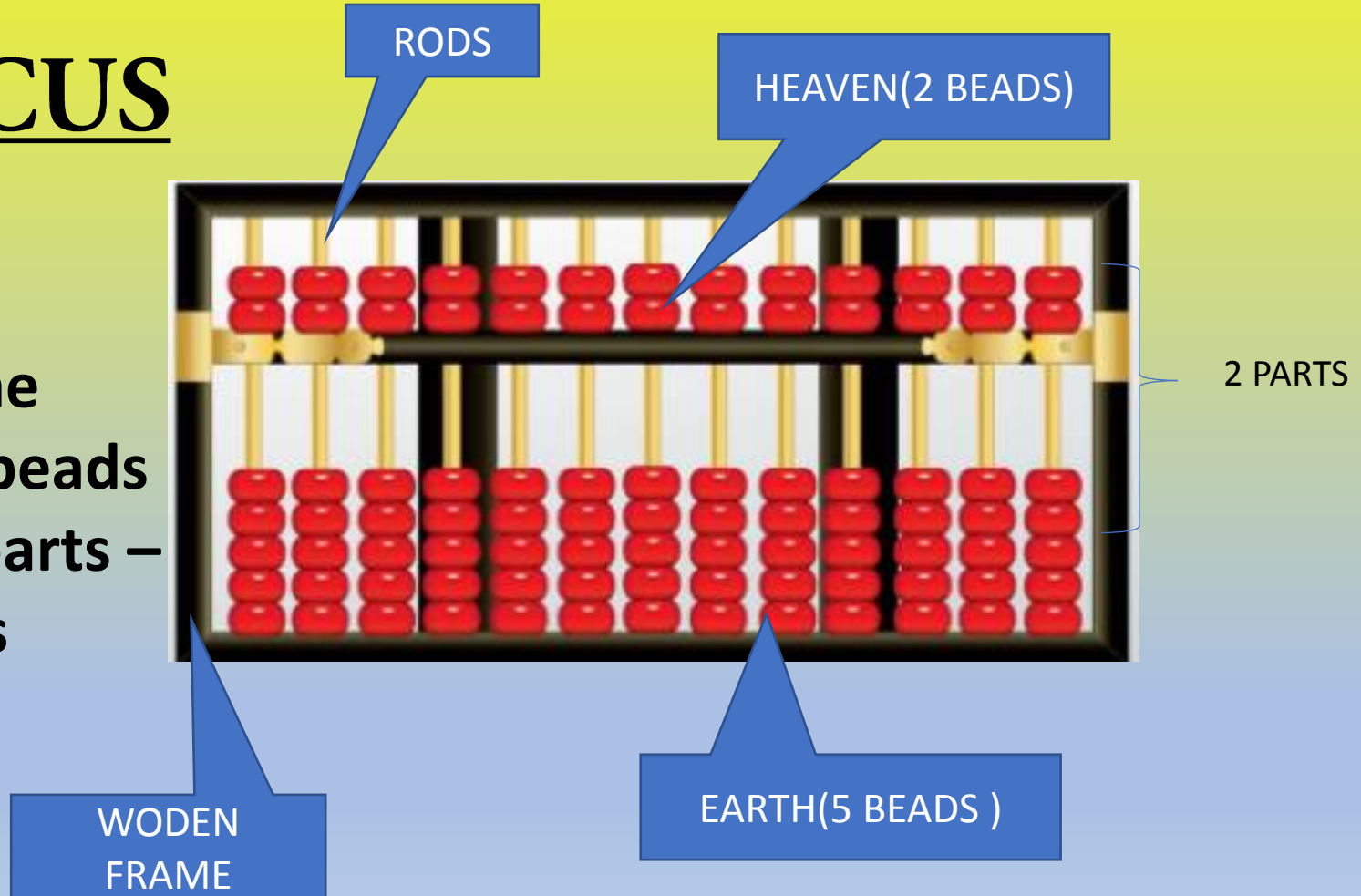
FULL FORMS

- a. **EDVAC** - **E**lectronic **D**iscrete **V**ariable **A**utomatic **C**omputer .
- b. **ENIAC** - **E**lectronic **N**umerical **I**ntegrator **A**nd **C**omputer .
- c. **UNIVAC 1** - **U**niversal **A**utomatic **C**omputer **1**.
- d. **IC** - **I**ntegrated **C**ircuits
- e. **PC** - **P**ersonal **C**omputer
- f. **C-DAC** - **C**entre for **D**evelopment of **A**dvance **C**omputing .
- g. **AI** - **A**rtificial **I**ntelligence .

HISTORY OF COMPUTER CALCULATING DEVICES

3000 –BC ABACUS

- First mechanical device for calculation .
- Made up of a wooden frame with rods and each having beads
- Frame is divided into two parts –
 - a. Heaven –two beads
 - b. Earth - five beads
- Used for + , - , x , -÷-



1617 –John Napier (calculating device)–*Napier's Bone*

Performs $+$, $-$, \times , \div and square root

1642–Blaise Pascal–Adding machine–*Pascal's calculator*

It used gears, wheels and dials

Performs addition and subtraction

Example - Taxi meter

1671- Leibniz calculator – (mechanical device)

Performs $+$, $-$, \times , \div and square root

EARLY IT INVENTORS

CHARLES XAVIER THOMAS-(1820) **Thomas Arithmometer**

First Commercial Mechanical Calculator – Performs + , - , x , :-

CHARLES BABBAGE –**FATHER OF COMPUTER** Invented mechanical computer

A. Different engine -1822

B. Analytical engine – 1833

- Analytical engine had five units .
- Input
- Output
- Storage- storing of data
- Mill- calculating unit
- Control – supervise all units

CPU

ANDRE TRUONG TRONG THI –**FATHER OF PERSONAL COMPUTER -1973**

MICRAL (MICRO COMPUTER)

Based on **Intel 8008** processor

Augusta Ada Lovelace – First Programmer

who suggested Binary storage (0 and 1) instead of decimal number system .

George Boole - Theory of Boolean logic – which became the fundamental principal for design of computer circuitry .

(positive result-1 and negative result -0)

Dr Herman Hollerith - tabulating machine

It was capable of reading data, processing it and giving the desired output .

Punch Card – used to input ,record and store data or information .

John Von Neumann – started the practice of storing data and information in binary code in memory .

1944- Mark 1 –(*Howard Aiken*)The first automatic sequence controlled calculator

1946-ENIAC –(*Neumann ,Presper Eckert and John Mauchly*)The first general purpose electronic digital computer .

1947-Transistors –(*John Bardeen ,William Shockley and Walter Brattain .*)

1950- EDVAC –(*Neumann ,Presper Eckert and John Mauchly*) was build using binary code .

1951- UNIVAC 1 (*Presper Eckert and John Mauchly*)*Worlds first commercially available computer .It was first computer to handle both numeric and text data.*

GENERATIONS OF COMPUTERS

GENERATION /PERIOD	CIRCUITRY	DATA INPUT	DATA OUTPUT	EXTERNAL STORAGE	LANGUAGE	EXAMPLE
1 ST 1940-56	VACUUM TUBES	PUNCH CARD AND PAPER TAPES	PRINTOUTS	MAGNETIC TAPES	MACHINE ASSEMBLY	UNIVAC, ENIAC EDVAC
2 ND 1956-63	TRANSISTORS	PUNCH CARD AND PAPER TAPES	PRINTOUTS	MAGNETIC TAPES	FORTRAN, COBOL, BASIC	IBM 1400 IBM 350
3 RD 1964-71	IC	KEYBOARD	MONITOR	MAGNETIC DISK	PASCAL FORTRON COBOL	IBM 360
4 TH 1972 – PRESENT	MICRO PROCESSORS	KEYBOARD MOUSE SCANNER	MONITOR PRINTER SPEAKERS	MAGNETIC DISK	RDBMS C++	CRAY ½
5 TH PRESENT AND BEYOND	AI				Understand human speech , recognize patterns like face and other complex images	

TYPES OF COMPUTER

Each new generation resulted in the following changes in computers.

↑ Increase in speed ,storage ,capacity and reliability

↓ decrease in cost and size

TYPES OF COMPUTER

ANALOG COMPUTER

HYBRID COMPUTER

DIGITAL COMPUTERS

MICRO
COMPUTER

MINI
COMPUTER

MAINFRAME
COMPUTER

SUPER
COMPUTER

PORTABLE
COMPUTERS

DESKTOP
COMPUTERS

LAPTOP
COMPUTERS

TABLET
COMPUTERS

