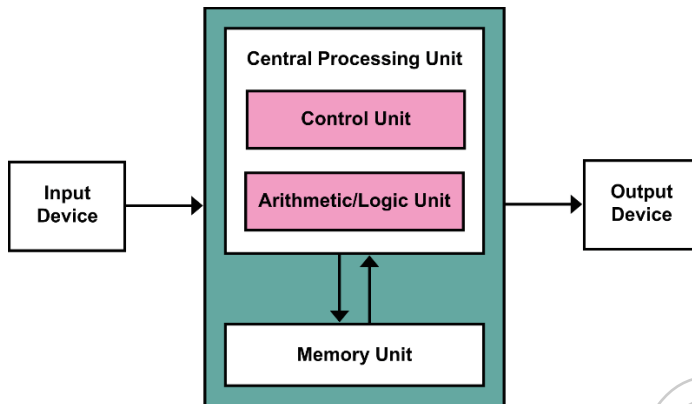


# Chapter 1 – The Discipline of Computing

1. Draw the John Von Neumann Architecture for functional units of a computer.

[ March 2020, Score 2 ]

Ans.



2. Prepare a short note about any three generations of computers.

[ March 2020, Score 3 ]

**Ans.** First generation computers were built with vacuum tubes. This generation uses stored program concept. In Second generation computers, vacuum tubes are replaced by transistors. This generation computers become less expensive, and required less electricity. Third generation computers reduce its size due to the use of integrated circuit.

3. -----was discovered by the Mesopotamians around 3000 BC

[ July 2019, Score 1 ]

Ans. Abacus

4. Write short note on First Generation Computers.

[ July 2019, Score 2 ]

**Ans.** First generation computers are built using vacuum tubes. This generation uses stored program concept. The input was based on punched cards and output was displayed on printouts.

5. Expand the following:

[ March 2019, Score 2 ]

a) ENIAC

b) VLSI

**Ans.** a) ENIAC-Electronic Numerical Integrator And Calculator.

b) VLSI- Very Large Scale Integrated Circuit

6. Explain any three generations of Computer

[ March 2019, Score 3 ]

**Ans.** First generation computers were built with vacuum tubes. This generation uses stored program concept. In Second generation computers, vacuum tubes are replaced by transistors. This generation computers become less expensive, and required less electricity. Third generation computers reduce its size due to the use of integrated circuit.

7. Name the ancient number system with the largest base.

[ July 2018, Score 1 ]

**Ans.** Sumerian / Babylonian number system

8. What are the characteristics of fourth generation computers.

[ July 2018, Score 2 ]

**Ans.** 1) Used VLSI circuits

2) Smaller in size

3) Less Cost

4) Data can be accessed fast

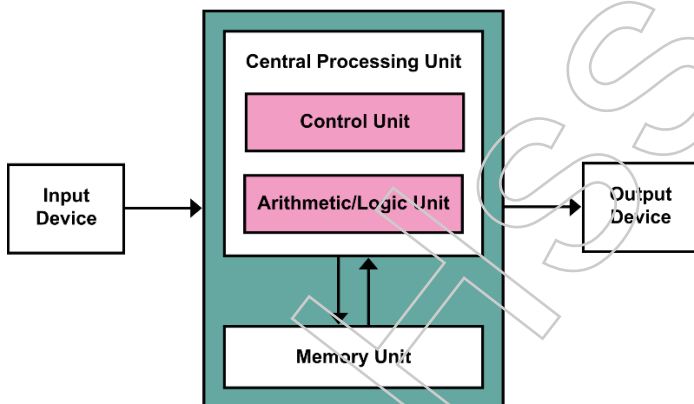
9. What is the base of Mayan Number system?

[ March 2018, Score 1 ]

**Ans.** 20

10. Draw the block diagram of John Von Neumann's computer architecture. [ March 2018, Score 1 ]

**Ans.**



11. Who is known as the father of Modern Computer Science?

[ July 2017, Score 1 ]

- a) Alan Turing
- b) John von Neumann
- c) Charles Babbage
- d) Ada Lovelace

**Ans.** Alan Turing

12. Match the following.

[July 2017, Score 2]

a) First Generation Computer	i) Microprocessor
b) Second Generation Computer	ii) Vacuum Tube
c) Third Generation Computer	iii) Transistor
d) Fourth Generation Computer	iv) Integrated Circuit

- Ans.** a) First Generation Computer - ii) Vacuum Tube  
b) Second Generation Computer - iii) Transistor  
c) Third Generation Computer - iv) Integrated Circuit  
d) Fourth Generation - i) Microprocessor

13. Compare any three features of five generation of computers.

[ March 2017, Score 3 ]

**Ans.**

Criteria	Generations				
	First	Second	Third	Fourth	Fifth
Technology	Vacuum Tube	Transistor	IC chip	Microprocessor	AI
Language	Machine	Assembly	High Level	High Level	High Level
Period	1940-1956	1956-1963	1964-1971	1971-Present	Present and Future

14. Order the following technologies according to the different generation of computer ( First to Fifth generation )

[ July 2016, Score 1 ]

- a) Transistor
- b) Vacuum tube
- c) Artificial Intelligence
- d) Microprocessor

**Ans.**

- b) Vacuum tube
- a) Transistor
- d) Microprocessor

c) Artificial Intelligence

15. Following are some facts related to the evolution of Computers.

( Usage of transistors, Introduction of Very Large Scale Integrated Circuits, Construction of ENIAC)

Categorize that under respective generations and briefly explain each. [ March 2016, Score 3 ]

**Ans.** Usage Of Transistor - Second generation  
Introduction of very large scale integrated circuit - Fourth generation  
Construction Of ENIAC - First generation

16. Which is the first automatic electromechanical computer? [ July 2015, Score 1 ]

a) Pascaline      b) Abacus      c) Mark 1      d) Analytical Engine

**Ans.** Mark 1

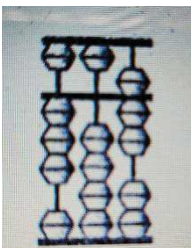
17. Find the correct match for each item in column A and column B. [ July 2015, Score 2 ]

A	B
a) Abacus	i) Preprogrammed
b) Pascaline	ii) Computing Machine
c) Jacquard's Loom	iii) Punched cards
d) Mark 1	iv) Counting Frame

**Ans.**

a) Abacus - iv) Counting Frame  
b) Pascaline - ii) Computing Machine  
c) Jacquard's Loom - iii) Punched Cards  
d) Mark 1 - i) Preprogrammed

18. What is the number that is represented by the following Abacus. [March 2015, Score 1]



**Ans.** 307