



SNS COLLEGE OF TECHNOLOGY



Coimbatore-36.

An Autonomous Institution

Accredited by NBA – AICTE and Accredited by NAAC – UGC with ‘A++’ Grade
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

COURSE NAME : 23ITT101 – C AND DATA STRUCTURES PROGRAMMING

I YEAR/ II SEMESTER

UNIT – I INTRODUCTION TO C

Topic: Fundamentals of Computer, Computer Hardware, Computer Software

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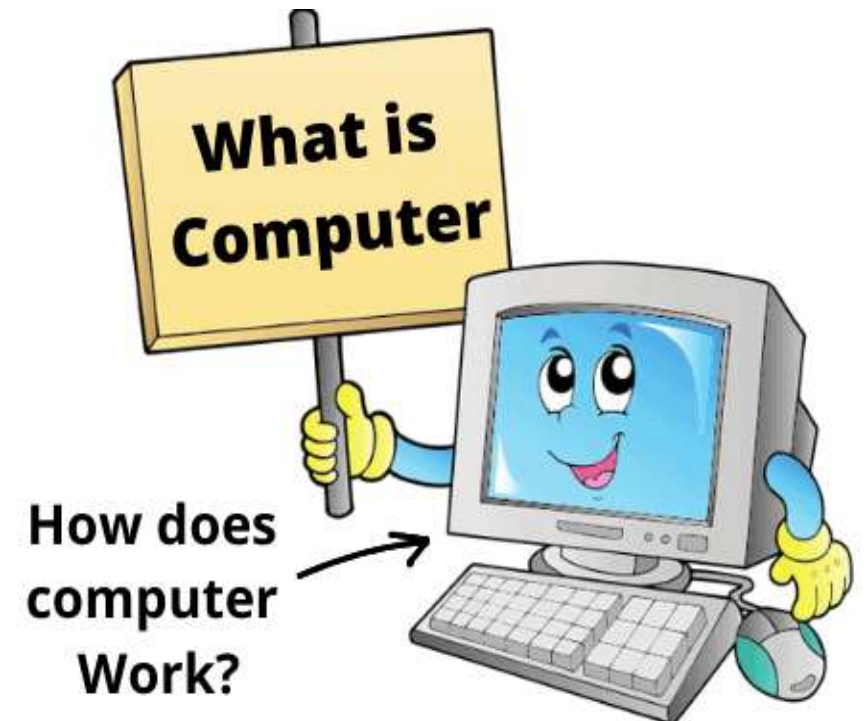
Department of Computer Science and Engineering



Fundamentals of Computer

What is Computer?

- The computer is an electronic machine that takes input from user, process the given input and generates output.
- In the form of useful information.
- The input is data, programs, user reply.





Fundamentals of Computer

Parts of Computer:



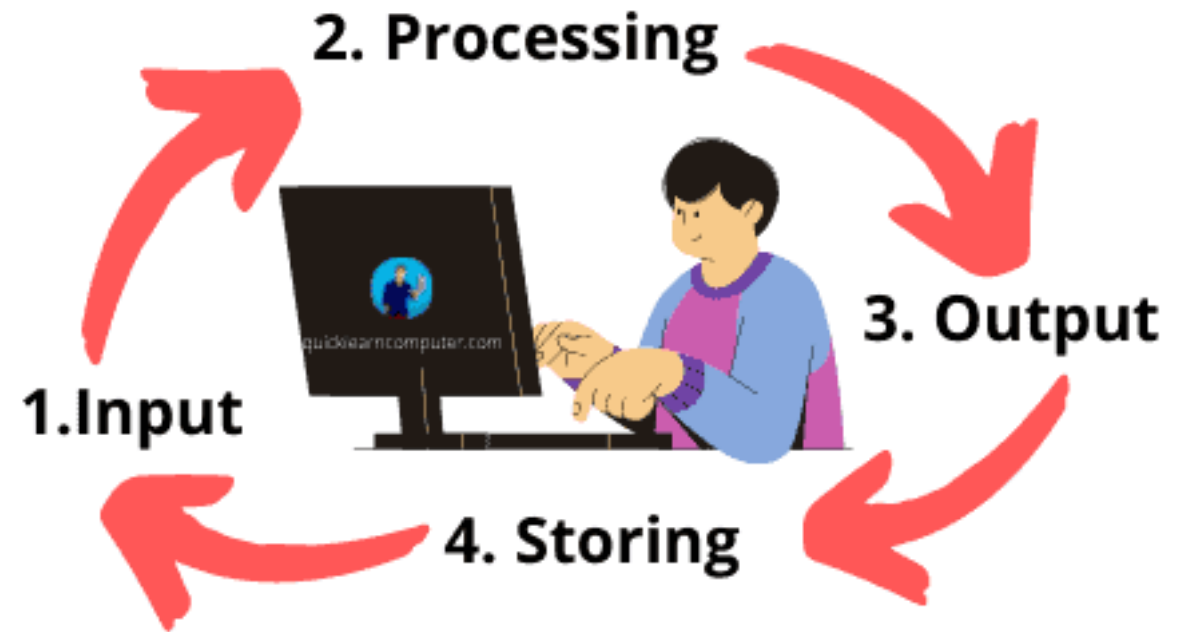


Fundamentals of Computer

Functionalities of Computer:

1. Input Function
2. Processing Function
3. Output Function
4. Storing Function

Basic Functions of Computer



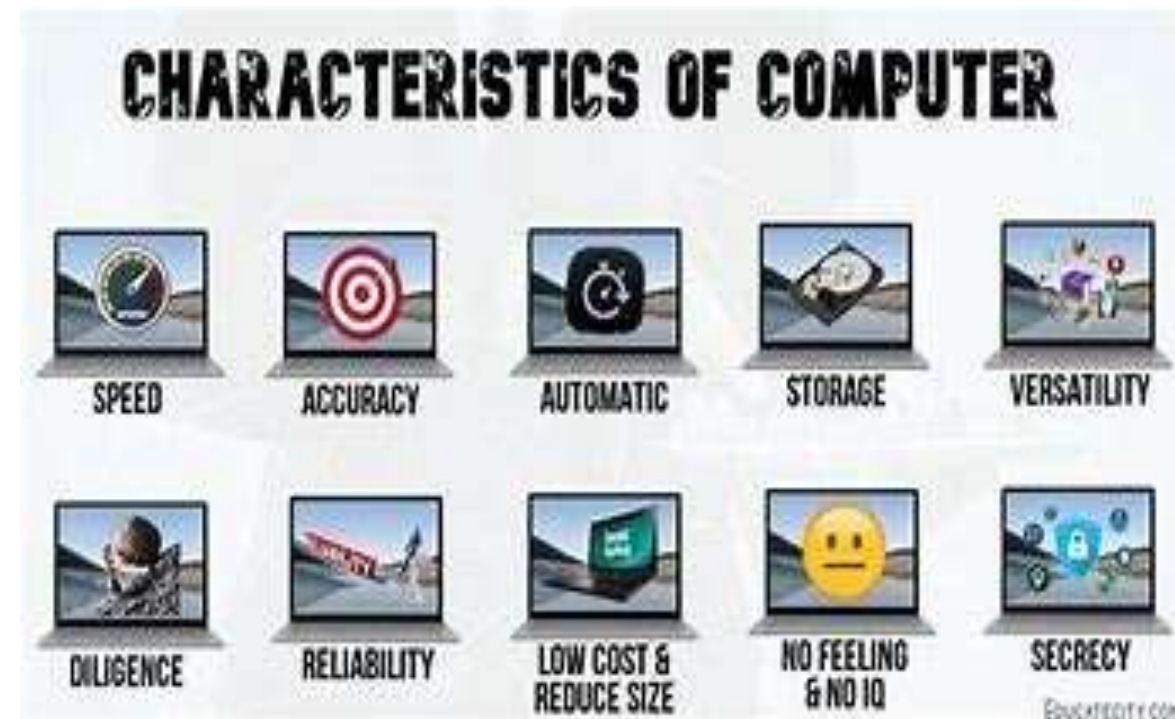


Fundamentals of Computer



Characteristics of Computers:

1. High Speed
2. Accuracy
3. Storage Capability
4. Diligence
5. Versatility
6. Reliability
7. Automation
8. Reduction in Paper Work and Cost





Fundamentals of Computer

Generations of Computer:

Generations	Period	Technology
Early Period	1000BC-1940	Abacus, Pascal
1 st generation	1946-1954	Vacuum Tubes
2 nd generation	1955-1964	Transistors
3 rd generation	1964-1977	Integrated Circuits
4 th generation	Since 1975	Large Scale Integration
5 th generation	Since 1980	Artificial Intelligence

Generations of computer



First Generation



Second Generation



Third Generation



Fourth Generation



Fifth Generation





Fundamentals of Computer



Classifications of Computer System:

- **Classification of Computers On the Basis of Size**
 1. Micro Computer
 2. Mini Computer
 3. Mainframe computer
 4. Super Computer
- **Classification of Computer On the Basis of Type**
 1. Analog Computer
 2. Digital Computer
 3. Hybrid Computer
- **Classification of Computer According to Purpose**
 1. Special Purpose computer
 2. General Purpose computer

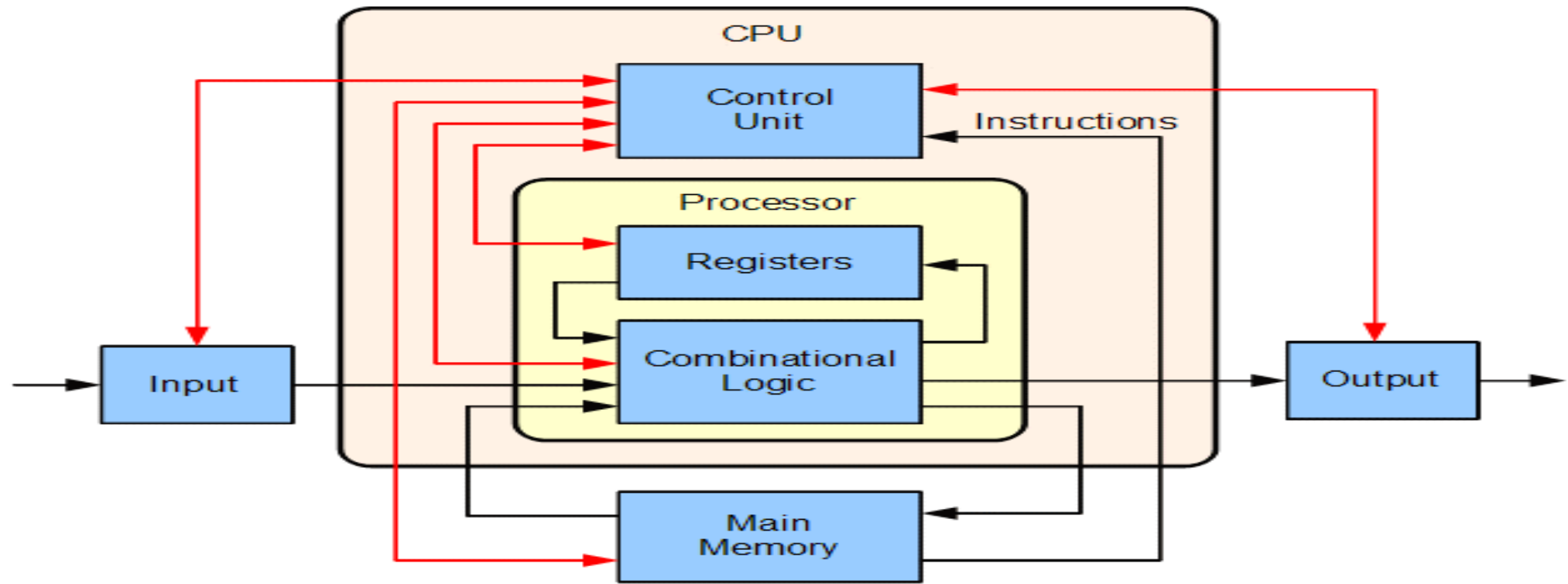


Building Blocks of Computers



BUILDING BLOCK OF COMPUTER

- Structure diagram consists of input devices, processing units and output devices.
- There are three units in building a computer.



Building Blocks of Computer



1. INPUT UNIT

- ✓ Used to receive data and instruction from users
- ✓ Converts the data and instructions to machine readable code.
- ✓ Common input devices are keyboard, mouse, joystick, scanner, etc.



FUNCTIONS OF INPUT UNIT

- **Accept** - the data and instructions from outside world.
- **Convert** - it to a form that the computer can understand.
- **Supply** - the converted data to the computer system for further processing.



2. PROCESSING UNIT

- It is the brain of the computer.
- CPU performs actual processing of data according to instructions from programs.
- Consists of three parts: *Memory Unit, Control Unit And Arithmetic Logic Unit (ALU)*



Memory unit: Place where data and instructions are stored during processing period. Popular memory are RAM and ROM.

Control unit: It controls the entire system of computer.

- ✓ It makes proper sequence to direct the input data and instructions to memory to ALU.
- ✓ It also controls signals to various parts of computer.
- ✓ It also transfer result from ALU to memory and then to output devices.



Arithmetic Logic Unit:

- ✓ Comprises number of register on its constructions.
- ✓ All data from memory gets loaded in ALU.
- ✓ It performs various arithmetic and logical operations of the programs.



3. OUTPUT UNIT

- Computer provides information and results of computation to the outside world through output unit.
- The output unit consists of one or more output devices.
- Some output devices are:
 - Monitor
 - Printer
 - Speaker



Thank
you

Thank you!