Chap-1   29/9/23

Chapter #1: INTRODUCTION.

* Computer Architecture:
        refer to those attributes
of a system visible to a
programer, or, those attributs   "*"
that have a direct impact on   instratia
the logical enecution of a
program. eg. instruction set,
I/O Mechanism, addressing memory.

* Computer Organisation:
            refers to operational
units and their inter-connection
that reliase the architectural
specification eg; those hardware
details transparent to programer.
such as control signals,
memory technalogy used.

→ Mostly computers are manufacturel
with same architecture but
may be different organization.

→ In microcomputers the relationship
between architecture and
organization is very close.

2.

→ RISC: reduced instruction set computers.

→ Computer organisation must be designed to implement a particular instruction/architecture so a through treatment of one require detail examination of other as well.

1.2 Structure & Function:

→ Structure is the way in which the component are interrelated

→ Function is the operation of each individual component as part of the structure.

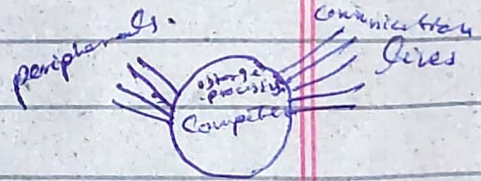→ The general basic functions that a computer can perform.
- Data processing
- Data Storage
- Data movement
- ~~Data~~ Control.
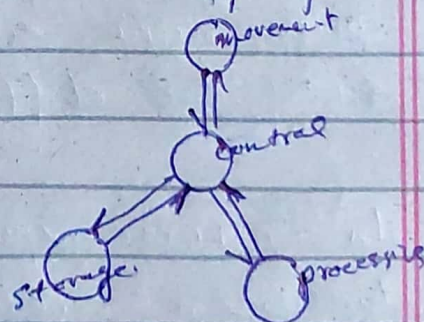
→ When data is recieved or delivered to a device that is directly connected to the computer is called I/O and device is refer to as a peripheral.

→ When data are moved over longer distances the process is known as data communication.

→ Computer interacts with its environment. linkage to external devices can be classified as peripheral devices or communication lines

→ The general basic structures that a computer posses are.
- CPU: performs data processing.
- Main Memory: Stores data.
- I/O: Moves the data to computer & environt
- System Interconnection: communication of these structure with each other.

→ There may be one or more aforementioned components.

→ The most intresting and most complex component is the CPU.

→ Major structural components of CPU are:

- Control Unit: controls the operation of CPU and hence computer
- ALU: perform data processing.
- Registers: provides internal storage.
- CPU interconnection: mechanism that provides for communication among these components.