B.B.A 2nd Semester

Sub → Fundmental of Computer

Q 1.) What is computer? Explain its components with is block diagram.

Ans The word 'computer' comes from the word 'Compute' which means to calculate. usually Consider a Computer to be a calculating device. that Can perform arithmetic operations at high speed. Computer is an electronic device. which Can solved all types of anithmetic as well as logical problem with given instructions or commands in very rapidly. original objective of inventing a computer was to Create a fast Calculating device. The activity of processing data using a Computer is called data processing Computer as a device that operate upon data because more than 80% of work done by today's Computer is data processing. The name data processor is more inclusive because modern Computer not only compute in the usual sense. also peform other function with data that flows and from them.

* father of Computer was charles babbage. from (U.S.A)

Computer (counting) + Operator (use)

C = Common
O = Oriented
M = machine
P = particularly
U = United and used under.
T = Technical
E = Educational
R = Research.

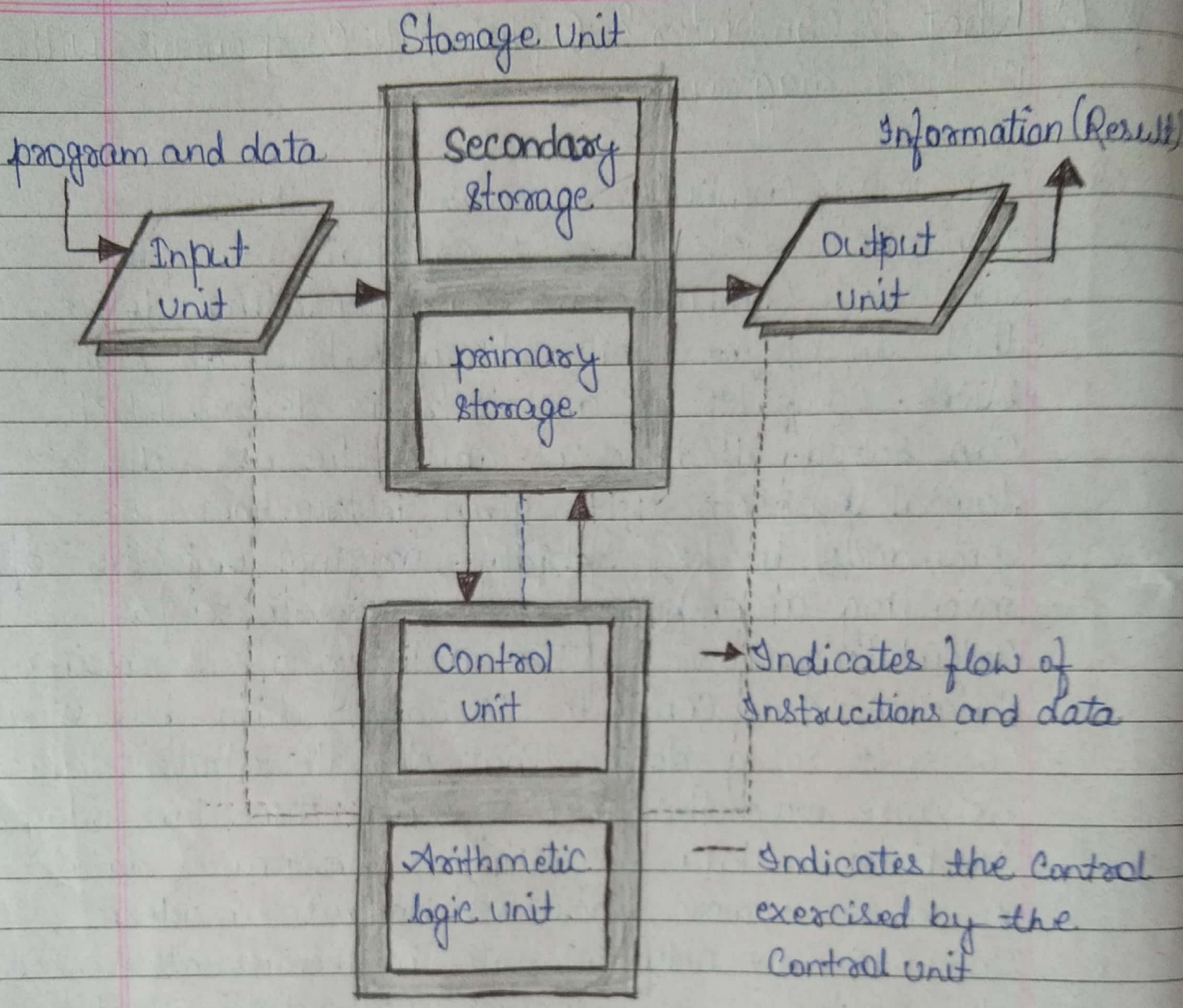


figure 2.1 → Basic organization of a computer system

* Input Unit →

The input unit that links a computer with its external environment perform this task. Computer through an input unit in a from that depends upon the input device used, for eg- Scanner, mouse, keyboard, Light pen, Microphone.

* Output Unit →

An output unit performs the reverse operation of an input unit. It links a Computer with its external environment. Before supplying the results to outside world. for e.g.- Moniter, projector, speaker, printer.

* Storage Unit →

Storage unit of a computer system caters to all these needs. It provide space for storing data and instrutions, intermediate results, and result for output. Two type of storage unit.

i) Primary Unit / Storage →

primary storage of a Computer system, also known as main memory. primary storage of modern Computer system is made up of semiconductor device. The Central processing unit can acces these information directly at a very fast speed.

ii) Secondary Storage →

Secondary storage of a computer system also known as auxiliary storage, takes care of the limitations of primary storage. The most commonly used secondary storage medium is magnetic disk.

* Arithmetic logic Unit (ALU) →

A Computer performs all calculation (decision-making) operations in the ALU. During processing of a Job, the Computer tranfer data and instruction stored in its primary storage to ALU as and when needed.

* Control Unit (CU) →

How does an input device of a Computer system know that it is time for it to feed data to storage unit. How it is that the Computer sends only the result for output to an output device and not the intermediate result.

* Central processing Unit (CPU) →

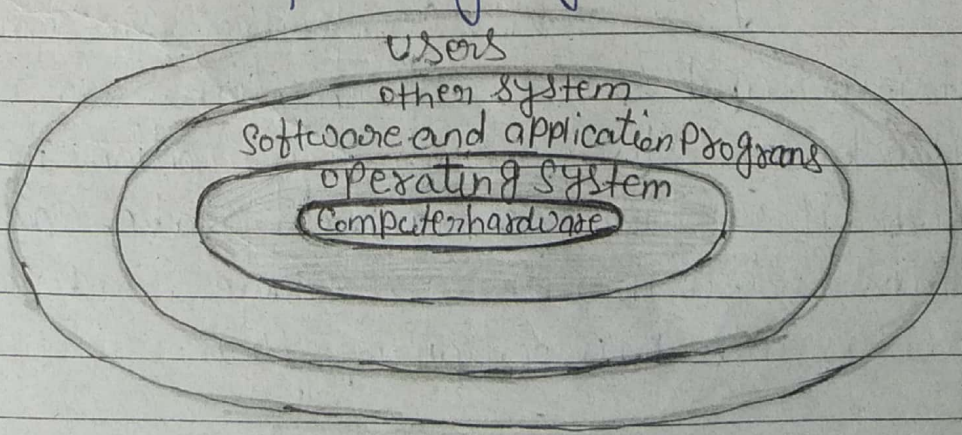
Control unit and arithmetic logic unit of a Computer system are together known as the Central processing unit. It is the brain of a Computer. Calculation and Comparisons, and also activates and Control the operation of other units of the Computer System.

Q 2.) What is an operating system? Explain its functions and features.

Ans An operating system is a part of system software operating system is an interface layar b/w user and Computer with out an operating system Computer nothing but a box of Components. It can do not work itself operating system are use to provide all types of hardware Components enterating facility and existing facility related to system through different operating system versons.
Ex → MS DOS windows 98, windows (xp) etc.
According to this definition, the two primary objectives of an operating system are.

i) Make a Computer System easier to use →

A Computer system Consists of one or more processors, main memory, and many type of I/O device such as disks, tapes, terminals, network interface, etc. It is called the operating system.



ii) Manage the resources of a computer system →

An operating system manages all the resources of a Computer System. Sharing of system resource among users and programs is a key goals of all operating system.

* functions of an operating system

i) process management →

A process is a program in execution. during execution, a process need certain resource such as cpu time, memory space, files devices.

ii) Memory management →

To execute a program, it must be loaded in main memory, together with the data it accesses. A Computer System normally keeps several program in main memory.

iii) file management →

All computer system store, retrieve and share information. Normally a a Computer stores such information in units called files. file management take care of file related activities organisation, storage, retrieval, naming, sharing and protection of files.

iv) Device management →

Normally a computer system consists of several I/O device such as terminal, printer, disk, and tape. It also provides a simple and easy to use interface b/w the device and rest of the system.

v.) Security →

Computer system often store large amount of information, some of which are highly sensitive and valuable to their users. One process does not interface with other or with the operating system itself.

vi) Command interpretation →

for using various system resources, a user communicates with the operating system via a set of commands provided by it. User are not much concerned about hardware details of the system.

*:- feature of operating system :-

i) Operating system loads the required programme in the computer memory and executes it whenneeded.

ii) It Contains the data on storage device like floppy disk or hard disk.

iii) Some operating system provide security of maintainance of data.

iv.) Without operating System Computer become useless

* :- Type of O/S :-

i) Multi user operating System →
This type of operating system Can be used to provide more than and types of work. most popular multi user operating system is unix. ~~and~~

ii) Single user operating System →
This type of operating System Can be used to provide only text type of work. It is called Single user operating system. most popular single user operating System is MS. Dos.

iii) Multi tasking operating System →
This type of operating System Can be used to provide more then type of works in some envoment through are user terminal and operating. most popular System is windows 98 windows x etc.

iv.) Multi processing operating System →
The operating System which is capabce of using and manging more then one cpu is called multi processing System

v.) Rear-time operating System →

It is provide random enquires from remote location. This system is tracks the Computer to analige the data and send opriate single back to the device.

vii) Multi programming operating system → This type of o/s is an attompt to increase the cpu this tecnic reduced ideal time of the cpu.

viii) Network operating system → It is replied to distributed o/s. It is very common on a the lane. A network operating system makes all the resources available most popular network o/s is Nt novel network.

Q.) What is Software? Define type of Software with eg.

Ans A Computer Cannot do anything on its own. We need to give instructions to it to make it do a job desired by us. Hence, it is necessary to specify a sequence of instruction a Computers must perform to solve a problem. Such a sequence of instruction written in a language understood by a Computer is called a Computer program.

The term Software refers to a set of Computer program, procedures and associated documents describing the program and how they are to be used.

A Software package is a group of program that solve a specific problem or specific type of job. eg. → A word processing package may contain program for text editing, text formatting drawing graphics, spelling checking etc. When a Computer is using a program to perform a task, we say it is running or executing that program.

* There are two type of Computer (Software) →

1.) System Software →

It refers to all the set of intigreted programs, which make the computers work is commonly supplied by the manufacturer of the hardware a large number of instructions.

which are specific to hardware divices pc some system software are following → Assembler, compiler, interpreter, links & loader & operating s. programs included in a system software package are called system program.

→ Some commonly known types of system software →

i) operating system →

operating system software takes care of effective and efficient utilization of all hardware and software components of a computer system.

ii) programming language translators →

programming language translators transform the instruction prepared by programmers in a programming language into a form that can be executed by a computer system.

iii) Communication Software →

In a network environment (where multiple computer are interconnected together by computer network.) Communications software is described

iv) Utility programs →

Utility programe are a

set of program that help users in system maintenance tasks, and in perform taks of routine nature. Some tasks commonly performed by utility programe include formatting of hard disk or floppy disks, taking backup of files stored on hard disk on a tape or floppy disk storing of the records stored in a file on someke

2.) Application Software →

Application software is a set of one or more programs, which solves a specific problem or does a specific task for eg - payroll processing software, examination result processing software, railway / airline reservation software and computer games software are application software. A program written by a scientist to solve a research problem is also application software. word processing, inventary management, pore paration of tax returns, banking, hospital, administration, insurance, publishing to Complex scientific and engineering applications such as forecasting, space lanching, oil and design of Complex structures like, bridges, sky-rise buildings etc.

* Some commonly known application software -

1.) Ward-processing software →

Ward-processing

Software enable us to make use of a computer for Creating, editing, viewing, formatting, storing, printing documents (written material such as letters, report, books etc.)

ii.) Spreadsheet Software →

Spreadsheet software is a numerie-data analysis tool that allows us to Create a kind of computerized ledger. A manual ledger is a book having rows and column that accountants use for keeping a record of financial transactions and for preparing financial statements.

iii.) Database Software →

A database is a collection of related data stored and treated as a unit for information retrieval purpose. A database software is a set of program that enable us to Create, maintain it, (add, delete, update records).

iv.) Graphics Software →

This type of use a Computer system for Creating, editing, viewing, staring printing, designs, drawing, picture etc.

v.) Education Software → This type of use to Coputer system teaching, learning, teaching, grammer, languages etc.