

Assignment - 1

Q1) what are the four fundamental parts of computer it with the help of diagram.

Ans Four fundamental parts of computer.

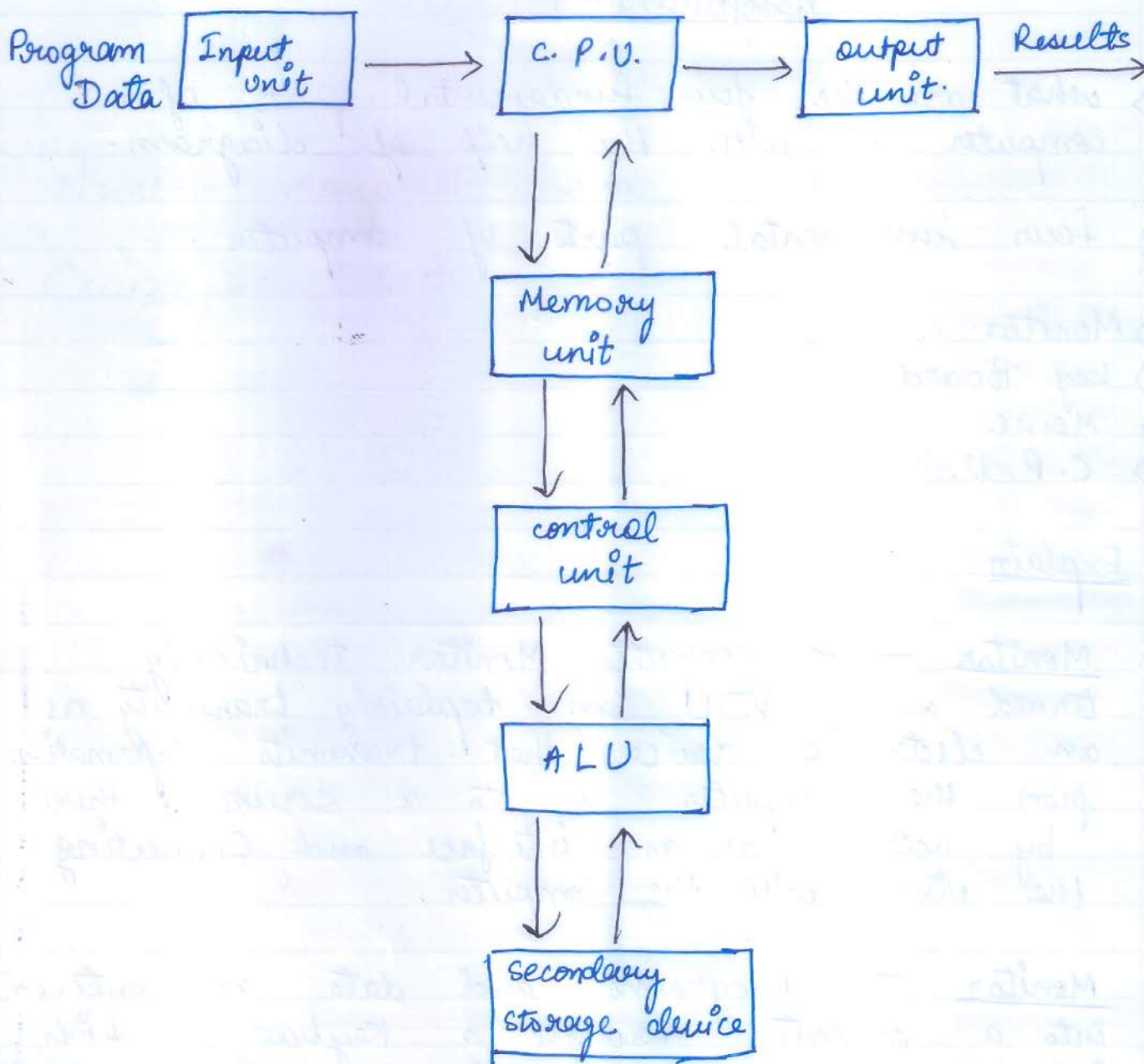
- a) Monitor
- b) Key Board
- c) Mouse
- d) C. P. U.

Explain

- 1) Monitor — A computer Monitor technically termed as a VDU can be plainly transmit as an electronic device that transmits information from the computer on to a screen, there by acting as an interface and connecting the virus with the computer.
- 2) Monitor — Programs and data are entered into a computer through a Keyboard which is attached to a computer. A keyboard is similar to the keyboard of a type writer. It contains alphabets, digits, special characters, function key and some keys.

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Diagram .



3.) Mouse - A mouse is a pointing device. It is held in one hand and is moved across a flat surface.

4.) C.P.U (Central processing Unit)

The C.P.U. is the brain of a computer its primary job is to run program and central the operation of all other components. Such as memory, keyboard and prints.

Q2.) Discuss about the classification of computers based on size and capacity.

Ans There are four types in the classification of the computer by size.

- 1.) Super Computer
- 2.) Mainframe Computer
- 3.) Mini Computer
- 4.) Micro Computer.

1.) Super Computer - Super Computer are the fastest computer in current era. The processing capabilities of super computer lies in the range of GIPS 2, word length 64-128 or may be in 256 or so, the memory

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capacity of super computer is some gigabytes or in terabytes the storage capacity of this type of computer is exabytes. The parallel processing of a super computer makes it very fast because it contains numbers of C.P.U. that operate parallel.

The Size factors

Advertisements :- The above difference are primary on the basis of three basic factors. namely :

1) The primary storage capacity

speed of processing data and ability support different devices. Such as printers, tape etc.

Advertisements :-

These factors are inter dependent and faster computer will ordinarily have large memory sizes and shall have facility to use a large numbers of sophisticated input output devices

Mainframe Computer

Mainframe computers are bigger computers capable of handling data processing needs of say head office of a bank or a big multinational company or may be a public utility office. Mainframe computer systems have large storage and the speed of processing is also very high.

They also offer the advantage of user choice with regard to up gradation of the systems in future.

They the speed of processing is expressed in terms of 10 to 100 millions of instructions per second (MIPS) and cost some where between 1 to 5 million dollars depending upon the configuration, IBM still holds, almost 80 percent of mainframe market with its popular mainframe series IBM system 390.

Advertisements :- The mainframe popularity has fallen due to emergence of micro computers and popularity of client server technology however they still find markets in large volume data processing requirements such as centered data Base servers.

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3) Mini Computers :- Mini computers are very popular among medium sized companies. Mini computers offer facilities for faster processing of voluminous information. Mini computers of course are bigger than micro computers but smaller than most of their elders called mainframes.

They cost somewhere between Rs. 5 to 10 lakh depending upon the configurations however these prices are only indicated and are subject to ~~sub~~ change over time.

Advertisements :- They have also been used extensively as gateways between main frame network and as main servers for local area networks of micro computers.

4) Micro Computers :- The smallest among all are micro computers, they are small in physical appearance. Most of them are desktop system. However notebook micro computers that can fit into a briefcase are also available. They are economical in terms of cost and are ~~for~~ friendly in use. Personal computers fall into this category.

These computers can be used for small data processing jobs of bigger companies or servers as complete computer systems for small firms. PC can also be connected with bigger.

Q5) what is the meaning of computer generation?
 How many computer generation? How many are defined? what technologies were/are used?

Ans Generations in computer terminology is a change in technology a computer is / was being used. Initially the generations term was used to distinguish between varying hardware, Now a days generation includes both hardware and software which together make up an entire computer system.

The computers are divided into five generations:-

- 1) First generation Computer: Vacuum tubes (1940-1956)
- 2) Second generation Computer: (1964-1971)
- 3) Third generation Computer: (1964-1971)
- 4) Fourth generation computers (present & beyond)

① First generation computer: Vacuum tubes (1940-1956):

The technology behind the primary generations computers was a fragile glass device which was called vacuum tubes. These computers were very heavy and very large in size. These weren't ~~was~~ very reliable and programming

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language and used no OS.

First generation computers were used for calculation. Storage and control that they needed a half room and consume electricity.

Main first generation computers:

- ENIAC
- EDVAC
- UNIVAC

② Second generation Computer : Transistors (1956-1963)
Second generation computers used the technology of Transistors. Rather than bulky vacuum tubes. Another feature was the core storage. A transistor may be a device composed of semiconductor material that amplifies a signal or opens or closes a circuit. Programming language was shifted from high level to programming language and made programming comparatively a simple task for programmers.

③ Third Generation Computers Integrated Circuits (1964-1970)

During the third generation technology, ~~ensured~~ ensured a shift from huge transistors to integrated circuits also referred to as IC. Here a variety of transistors were ~~placed~~ placed on silicon chips called Semiconductors was the most speed and reliability. IC was made from silicon and also called silicon chips.

4.) fourth Generations computers Micro processors (1971-present)

In 1971 first micro processors were used. The large scale of integrations. 1st circuits built on one chips called micro processors. The most advantage of this technology is that one micro processor can contain all the circuits regard to perform ~~ast~~ arithmetic logic and control function on one chip. Technologies like multiprocessing, multiprogramming, time sharing, operating speed and virtual ~~me~~ memory made it a more user friendly and customary device.

5.) fifth Generations Computers :-

The technology behind the fifth generations of computers is AI. It allows computers to behave like humans. It is often seen in programs like voice recognition, area of medicines and entertainment within the field of games playing also its shows remarkable performance where computers are capable of beating human computers.

Q4.) Differentiate between volatile ^{and} non-volatile memories.

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Volatile memory

- 1.) Volatile memory are stored temporarily
- 2.) RAM is an example of volatile memory
- 3.) Volatile memories are more costly per unit
- 4.) Volatile memory has a huge impact on the system's performance.
- 5.) In volatile memory processor has direct access to data
- 6.) Volatile memory chips are generally kept on the memory slot.
- 7.) Volatile memory is the type of memory in which data is lost as it is powered off.

Non-Volatile memory.

Non-Volatile memory are stored permanently.

Rom is an example of Non-Volatile memory.

Non-Volatile memory is less costly per unit.

Non-Volatile memory has a huge impact on a system's storage capacity.

In non-volatile memory processor has no direct access to data

Non-volatile memory chips are ~~not~~ embedded on the mother board.

Non-Volatile memory is the type of memory in which data, remains stored even if it is powered-off.

Q5.) Distinguish between system software application software and open source software on the basis of their features.

Ans System software :- System software is software designed to provide a platform for other software. Examples of system software include operating system like macOS, Linux, Android and Microsoft windows. Computational science software, game engines, search engines, industrial automations and software as a service applications.

Application software :- An application program (software application, or application or app for short) is a computer programme designed to carry out a specific task other than carry out one relating to the operation of the computer itself. Typically to be used by end users word processors, media players and accounting software are examples.

3.) open source software - open source software is software with source code that anyone can inspect, modify, enhance.

- 5 features of open source software

- Innovation : open source software helps facilitate

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more rapid innovation as it encourages that sharing of resources and information that in turn support technical development.

- freedom
- Integrity
- Continuity
- giving back to the community.
Final thoughts : . . .