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1

Explain characteristic of computer:-

=> The main charcteristics of computer is following below.

- speed
- Accuracy
- Diligence
- Reliability
- Versatility
- storage capacity
- Automatic
- Quick Decision
- Multicasking
- No Feeling
- Power of Remembering
- No 19

- Speed:-
  Computer are much faster to perform mathematical calculations than human. The computer is capable of performing millions of tasks per second.

- Accuracy:-
  A computer is very accurate. It does not make any kind of mistake in calculating. Sometimes we get some error but these are because of the mistake performed by us.

- Diligence:-
  A person gets tired of doing some work in a few hours and a computer has the ability to do any work continuously for many hours, days, mounts.

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- Reliabitity:-
  ~~Reliabittig~~ Reliability is a very big characteristics of computer. Today almost all the big industries or big e-commerce companies search engine commpanies like - Google and Bing, all these companies are ~~dep~~ dependent on computers.

- Versatility:-
  Versatility is the characteristics of a computer. Its ~~men~~ means it that the computer is capable of working in almost every field.

- Storage Capacity:-
  Computer systems have a very large capacity to store any type of data. A computer can store and resell any information due to its storage capacity.

- Automatic:-
  A computer is an automatic machine because once started on a job they carry on until the job is finished without any human assistance.

- Quick Decision:-
  The computer takes the decision very quickly, given by the user which is the instruction arithmetic data

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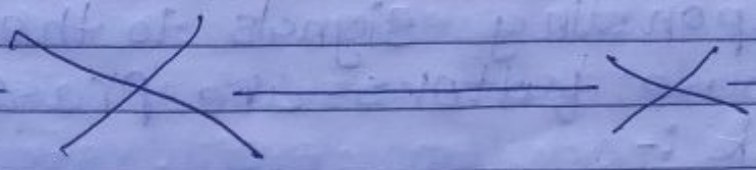
- **Multitasking :-**
  Multitasking is also a very special feature of computers. A user can do different types of tasks on the computer at the same time. We can do a lot of work at the same time.

- **No Feeling :-**
  In computer, like humans, there is no feeling and emotion, nor does the computer have any knowledge and experience, because a computer is a machine which works continuously on the instructions of humans without any selfishness and without tiredness.

- **Power of Remembering :-**
  Power of remembering is also very special characteritics of the computer.

- **No IQ :-**
  A computer is a dumb machine, without a user, a computer is a useless machine and device. A computer system is completely dependent on us humans how to work.



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[2] Explain classification of computers by processed.

⇒

→ The computers are classified based on the technology being used and how data is processed

• Computer are classified in 3 types:-

1. Analog computers :-

→ An analog computer is a type of computer that uses the continuously changeable aspcts of physical phenomena such as electrical, mechanical or hydraulic quantities to model the problem being solved.

→ Analog computers were widely used in scientific and industrial applications even after the digits computers.

→ They do not use discrete value but use continuous values.

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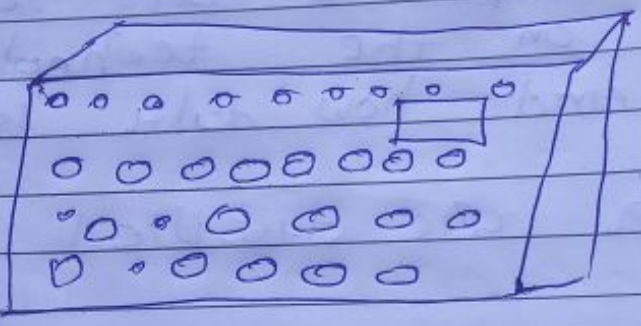
→ These computers work on anlog singles.

→ Used in our daily life such as refrigerator, speedometer etc....



~~Anto~~ Analog computers

2. Digital Computers :-

→ These are the computers which perform various computational as well as some other general purpose works.

→ The information in such computer is represented by variables taking a limited number of discrete value.

→ These computers work on digital singlels.

→ But at a time it only takes one value.

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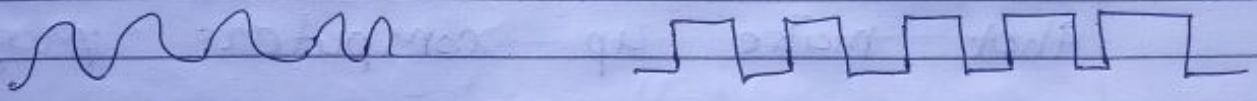
→ Digital computer use the binary number system, which has also two digits 0 and 1 called bit.

→ Main advantage of digital computer is its speed and accuracy.



Analog single

Digital single

3. Hybrid Computer:-

→ Hybrid computer are computers that includes features of anlog computer and of digital computers.

→ The digital components provide logical and numerical operations while analog components serve as a solver of equations.

→ It is mixer of anlog and digital computers.

→ It produces quick results.

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Q-3 Explain all the generations of computer:-

-> Generation is computers:-
(1) First Generation
(2) Second Generation
(3) Third Generation
(4) Forth Generation
(5) Fift Generation

1. First Generation

-> First Generation time duretion is 1942 to 1955

-> First Generation is use Basic ~~compnet~~ camponet use Vacuum tude.

-> First Generation is componet memory use circuit of CPU.

-> This Generation use Machin Laguages use.

-> Palar card and magnetics disk use input and output.

2. Second Generation

-> second Generation ~~use~~ time duretion is a 1955 to 1964.

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-> This uses a AC needs

-> This generation is a use Machine and assemblyi Language use.

-> This generation is compar to fast generation is fast.

-> This generation is compar to fast generation is smaller size.....

[3] Third generation

-> Third generation time duration is ~~19~~ 1964 to 1975.

-> This generation use transistor is IC.

-> This generation is Ac need.

-> This other ~~ge~~ old generation this compar Genaration is very reliable.

-> This genaration use High Laguages.

-> Ic is made is a Jack kilby

-> This Genaration, remote prosecing, time sharing, mluti-programming use.

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[4] Forth Generation :-

-> Forth Generation time duretion is 1975 to 1980.

-> The computer use very large Scale Interation circit (VLSI).

-> This Generation time sharing, networking system uses.

-> This Generation is use High Laguages like c, c++, used.

-> This Generation is no AC needed.

[5] Fift Generation

-> Fifth Generation time duretion is 1980 to Prasent time use.

-> This Generation use VLSL and ULSL.

-> This Generation used laguages like, c, c++, Java, .Net used.

-> This Generation is Game play and video, audio is a advantages.

-> This Generation is nuturn laguage use.

end [3] 4

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Q1 Explain CPU in detail:-

→

——→ A central processing Unit also called CPU processor is the eletronic circuitry within a computer that executes instructions that make up computer's program.

——→ The CPU performs basic arithmatic, logic, controling and input / output operations specified by the instructions in the programs.

——→ Principal components of a CPU include the arithmetic logical unit (ALU) that performs arithmetic and logical operations, processor registers that supply operands to ALU and stores results.

——→ modern CPU consist of integrated chip (IC)

——→ CPU contains many memory, peripherals and other computers components.

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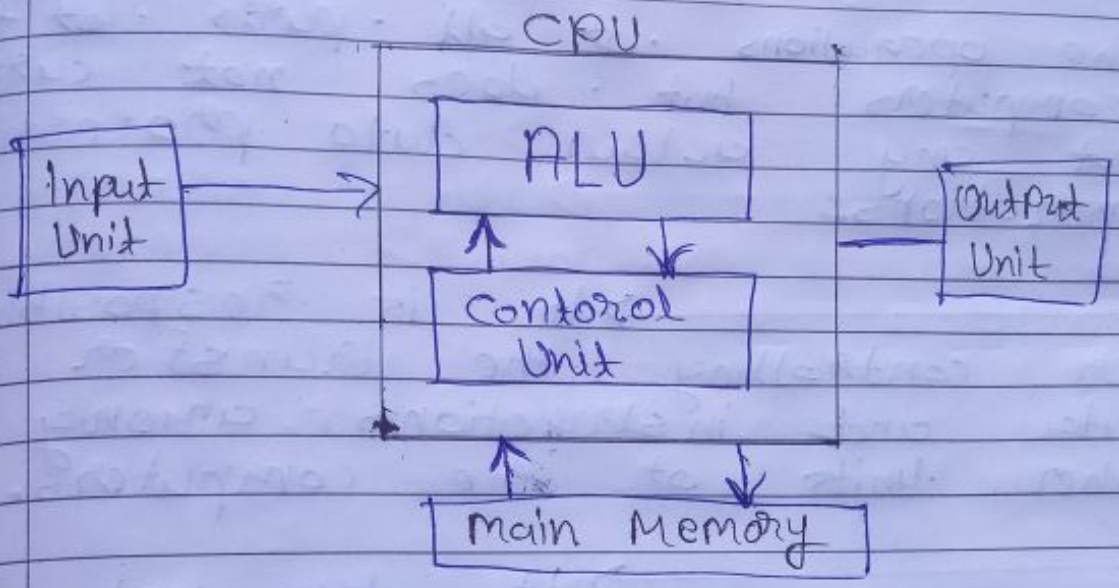
→ it is also known as brain of computer :-



- Memory :-

→ This unit can store instructions, data and intermediate results.

→ This unit supplies information to other units of the computer when needed

→ It is also know as internal storage units or the main memory or the primary storage or Random Access Memory (RAM).

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- **Control Unit:-**

→ This units controls the operations of all parts of the computers but does not carry out any actual data processing operations.

→ It is resposible for controlling the transfer of data and instructions among other units of the computers.

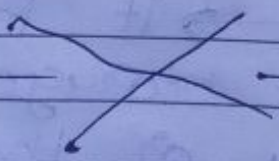
→ It does not process or store data.

- **ALU:-**

→ This unit consist of two subsections:-

(1) Arithmetic section:

(2) Logical section:



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Q-15 Explain RAM and ROM in detail:-

1. RAM:-

→ RAM (Random Access memory) is the internal memory of the CPU for storing data, program and program off, data is erased.

→ Access time is RAM is independent of the address that is, each storage location inside ~~DASD~~ the memory is as easy reach as other locations and takes the same amount of time.

→ Data in the RAM can be accessed randomly but it is very expensive.

→ RAM is volatite, i.e. data stored in it lost when as swich of the off computers of if there is a power failure, Hence a 'backup uninterruptible power system (UPS) is often used with computer.

→ RAM is small, both in terms of its physical size and in the amount of data it can hold.

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-> RAM is two type:-

(1) Static RAM

-> The word static indictes that the memory retains its contents as long as power is being supplied.

(2) Dynamic RAM

-> DRAM, unlike SRAM must be continually refershed in order to maintain the data.

(2) ROM:-

-> Rom stands for Read only memory.

-> The memory form which we can only read only but cannot write onit.

-> This type of memory is non-volatile.

-> The information is stored permanenty in such memories during manufacture.

-> A Rom, stores such instructions that are required to start a computer. This operation is referred bootstrap.

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-> Rom chips are not only used in the computer but also other electronic items like washing machine and microwave oven.

• Advantages of Rom

-> Non-volatile in nature

-> These cannot be accidentally changed.

-> cheaper than RAMs

-> Easy to test

-> more reliable than RAMs

-> These static and do not require refreshing

-> Its contants are always knows and can be verified.

End

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6 Write a note on: slots and cables :-

→

- Slots :-

→ When referring to an SD or other memory cards, a slot is the hole the card is placed into. See our card reader term for furthers information.

→ A slot an opening for a CD-ROM, DVD, and other disc drive that does not use a tray. See our slot load disc drive definition for further information.

→ A slot is anther name for an expansion slot such as an ISA, PCI, AGP slot, or memory slots, see the motherboard definition for a visual example of all of these slots.

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→ A slot is a computer processor connection designed to make upgrading the processor easier, where the users would only have to slide a processor into a slot.

→ The original slot or slot 1 (pictured below), was first relesased by the Intel corporation in 1997 as a successor to the Socket 8. Later, AMD relesed another slot processor know as the slot A in 1999.

- **Cables :-**

→ Alternatively referred to as a cord, connector or plug, a cable is one or more wires covered in plastic that transmit power or data between devices or locations.

→ The picture is an example of what the power card may look like for yor computer or monitor.

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→ There are two main types of computer cables, a data cable and a power cable.

→ A data cable is a cable that provides communication between devies.

→ For example, the data cable that connects your monitor to your computer allow it to display a picuture on the monitor.

→ Other popular example cable is any cable that powers the powers the device. and include CAT 5, IDE/EIDE, SATA and USB cables.

→ Below, is a listing of the most common types of cables found with computers and electronics and example of devices that use them.

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7 Explain Processors in detail:-

⇒

→ A Process is an integrated electronic circuit that performs the calculations that run a computer.

→ A processor performs arithmetical, logical, input/output and others basic instructions that are passed from an operating system.

→ most other processer are dependent on the operations of a processor.

→ The terms processor, central processing unit (CPU) and microprocessor are commonly linked as synonys.

→ Most pepole use the word 'processor' interchangably with the term 'CPU' nowadays, it is technically not correct since the cpu is just one of the processor inside a PC.

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→ The Graphics Processing Unit (GPU) is another processor, and even some hard drives are techically capable of performing some processing.

→ Processors are found in many modern electroin devices, including PCs, smartphone, tables and other handheld devices.

→ A processor includes an arithmetical logic and control unit (CPU) which measure capabillty in terms of the following.

- Ability to process instructions at a given time.
- Maximum number of bits/instructions.
- Relative clock speed.

→ They work together to process instructions and complete multiple takes at the same time.

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→ modern desk-top and laptop computers now have a separate processor to handle graphic rendering and send output to the display monitor devies.

→ Since this processor, the GPU, is specifically designed for this task, computers can handle all applications that are especially graphic-intensive such as video games more efficiently.

→ A processor is made of ~~four~~ basic elements: logic unit arithmetic (ALU), the floating point unit (FPU), registers, and the cache memories.

→ The ALU and FPU carry basic and advanced arithmetic and logical operations on numbers, and then results are sent to the registers, which also store instructions.

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