Muhammad Shakeel
ID 13419
Bs.MLT

Q1 .
- The characteristics of computers that have made them so powerful and universally useful are speed, accuracy, diligence, versatility and storage capacity.

GENERAL CHARACTERISTICS OF MODERN COMPUTERS. ...

storage
- For a computer to be able to work, it must have some. ...

SPEED
- Computers operate at extremely high speeds CPU of computer can perform more than 10. ...

ACCURACY. ...
- AUTOMATIC FUNCTIONING The computers are automatic. ...

DILIGENCE
- (ENDURANCE)

Part B.
- The fourth generation computers have microprocessor-based systems. It uses VLSI (Very Large Scale Integrated) circuits.

- 2) They are the cheapest among all the computer generation.

- 3) The speed, accuracy and reliability of the computers were improved in fourth generation computers.

Q2
Importance of arithmetic logic unit.

- An arithmetic logic unit is a digital circuit used to perform arithmetic and logic operations. It represents the fundamental building block of the central processing unit (CPU) of a computer. Modern CPUs contain very powerful and complex ALUs. In addition to ALUs, modern CPUs contain a control unit CU.

Importance of control unit.

- The control unit (CU) is a component of a computer's central processing unit (CPU) that directs the operation of the processor

- . It tells the computer's memory, arithmetic and logic unit and input and output devices how to respond to the instructions that have been sent to the processor.

Q2 Part B

- Computer random access memory (RAM) is one of the most important components in determining your system's performance. RAM gives applications a place to store and access data on a short-term basis. It stores the information your computer is actively using so that it can be accessed quickly.
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- Random access memory also helps your system support software. Every piece of software requires a minimum amount of space and memory to be able to run smoothly.

- If your computer does not have enough RAM to support all the software systems you are running, or trying to run, they move so slow that it might not be worth running that software system.

- Additionally, if there is not enough storage room, the software might not run at all.

- RAM is such a key element to how your computer functions that if one storage location out of a million is damaged your entire system can potentially crash.

- RAM is found in both SSD and HDD systems. One of the key characteristics of RAM is that it is much faster than a hard disk drive or other long term storage device, which means that the computer is not kept waiting for data to process.

Types .
- Static RAM (SRAM)
- Dynamic RAM (DRAM)
- Synchronous Dynamic RAM (SDRAM)
- Single Data Rate Synchronous Dynamic RAM (SDR SDRAM)
- Double Data Rate Synchronous Dynamic RAM

Q3

Basic organization of computer.

- A Computer has five functional independant units like Input Unit, Memory Unit, Arithmetic & Logic Unit, Output Unit, Control Unit. Computers take coded information via input unit. The most famous input device is keyboard.

- Instructions take a vital role for the proper working of the computer.

- An appropriate program consisting of a list of instructions is stored in the memory so that the tasks can be started.

- The memory brings the Individual instructions into the processor, which executes the specified operations.

- Data which is to be used as operands are moreover also stored in the memory.

- Computer Organization refers to the level of abstraction above the digital logic level, but below the operating system level A closely related term, computer

- architecture, emphasizes the engineering decisions and tradeoffs that must be made in order to produce a "good" design.

- Describes a design architecture for an electronic digital computers with subdivisions of a central arithmetic part, a central control part, a memory to store both data and instructions, external storage, and input and output mechanisms