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**QUESTION**

Discuss the functions of CPU

**ANSWER**

CPU generally performs the arithmetical and logical operations, controlling of different input-output devices. These operations are performed based on some predefined algorithms and instructions normally referred as computer programs.

A computer program is a set of instructions written by a human to perform a specific operation by the CPU. A computer program is normally stored in the memory unit of the Central Processing Unit

There are four major functions of the central processing unit. The CPU processes instructions it receives in the process of decoding data. They include fetch, decode, execute and store

**FETCH :** Each instruction is stored in memory and has its own address. The processor takes this address number from the program counter, which is responsible for tracking which instructions the CPU should execute next. In other words, When an instruction from a program is uploaded to the computer's memory, it's given its own address number. The processor uses this address to fetch the instruction from the program counter, which tells the CPU the order it should execute the instructions associated with a particular program.

**DECODE:** All programs to be executed are translated to into Assembly instructions. Assembly code must be decoded into binary instructions, which are understandable to your CPU. This step is called decoding. The processor also decodes the instructions from programming into binary code so that it can understand them. The CPU uses the ALU to complete this process.

**EXECUTE:** When executing the instructions from a program, the processor does one of three things. It performs calculations using the ALU, moves data from one location in the computer's memory to another or moves to a different address within the computer's memory which implies that during executing the instructions of a program, the processor does one of three things. calculations using the ALU, moves data from one location to another or moves to a different address within the computer's memory.

**STORE:** Once the processor has executed an instruction from a program, it must give feedback in the form of output data. This output data is then written to the computer's memory for later reference.