**19/SCI01/092**

**ALABI KEHINDE OLUWASEMILORE**

**CSC 202**

**COMPUTER SCIENCE**

FUNCTIONS OF THE CPU

A central processing unit (CPU) is the electronic circuitry within a computer that carries out the instructions of a computer program

performing the basic arithmetic, logic, controlling, and input/output (I/O)

operations specified by the instructions.

**The CPU, or Central Processing Unit, is both the heart and brains of every**

**computer. Many of us do not know how important this unit is to the performance**

**of a computer. How many of you have wondered about the basic functions of**

**CPU? This article will answer that question, plus others including:**

• **Why it is important to have a good cooling system to keep the CPU**

**at the right temperatures.**

• **Why it is so important to keep the CPU from overheating.**

**The Four Primary Functions of the CPU**

**The CPU processes instructions it receives in the process of decoding data. In**

**processing this data, the CPU performs four basic steps:**

**1. 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.**

**2. 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.**

**3. Execute: While executing instructions the CPU can do one of three**

**things: Do calculations with its ALU, move data from one memory location**

**to another, or jump to a different address.**

4. **Store: The CPU must give feedback after executing an instruction,**

**and the output data is written to the memory.**