1 Lecture - CS401

Important Subjective

1. **What is a CPU?**
   Answer: A CPU, or Central Processing Unit, is the brain of a computer system. It is responsible for executing instructions, performing arithmetic and logical operations, and controlling the flow of data between different parts of the system.

   What are the basic components of a CPU?
   Answer: The basic components of a CPU include the control unit, the arithmetic logic unit (ALU), and registers.

   What is the purpose of memory in a computer system?
   Answer: Memory is used to store data and instructions that the CPU can access and manipulate.

   What is the difference between primary and secondary memory?
   Answer: Primary memory, also known as main memory or RAM, is used to temporarily store data and instructions that are currently being used by the CPU. Secondary memory, such as hard drives and flash drives, is used for long-term storage of data and instructions.

   What is the purpose of the system bus in a computer system?
   Answer: The system bus is used to transfer data between the CPU, memory, and input/output devices.

   What is a register?
   Answer: A register is a small amount of high-speed memory that is used to temporarily store data and instructions that the CPU is currently working with.

   What is a cache memory?
   Answer: A cache memory is a small amount of high-speed memory that is used to store frequently accessed data and instructions.

   What is the purpose of the system clock in a computer system?
   Answer: The system clock is used to synchronize the operation of different parts of the system, such as the CPU, memory, and input/output devices.

   What is an instruction set?
   Answer: An instruction set is a collection of instructions that a CPU can execute. It includes operations such as arithmetic, logic, and data transfer.

   What is a bus width?
   Answer: A bus width refers to the number of bits that can be transferred simultaneously over a bus. A wider bus allows for faster data transfer between different parts of the system.