

MODULE-1

Introduction to Computer Organization



You



What is a Computer organisation?

- ▶ Describes function & design of various units of digital computers
- ▶ Deals with Computer Hardware and Architecture
- ▶ Computer/Digital Computer



- ▶ Classification of Computers

PPT-02 Functional units - PowerPoint

PPT-02 Functional units - Power...



You



Range of powerful computers



You



Basic functional units



Input Devices



Output Devices



1DS18EC002 ABHISHEK A
Printer



You



Continued...

- ▶ Input Unit-accepts information through input units, which read the data
- ▶ Memory Unit- 2 types
- ▶ ALU-Faster than other devices connected to system.
- ▶ Output unit-Counter part of input unit
- ▶ Control Unit-Sends control signal to other units and sense their states



Information Handled by a Computer

- ▶ Instructions/machine instructions
 - Govern the transfer of information within a computer as well as between the computer and its I/O devices
 - Specify the arithmetic and logic operations to be performed
 - Program
 - ▶ Data
 - Used as operands by the instructions
 - Source program
 - ▶ Encoded in binary code – 0 and 1



You



Memory Devices



You



- ▶ CPU wants data from cell 4(Read/write)
- ▶ CPU communicates R,W control signals along with address -memory requests



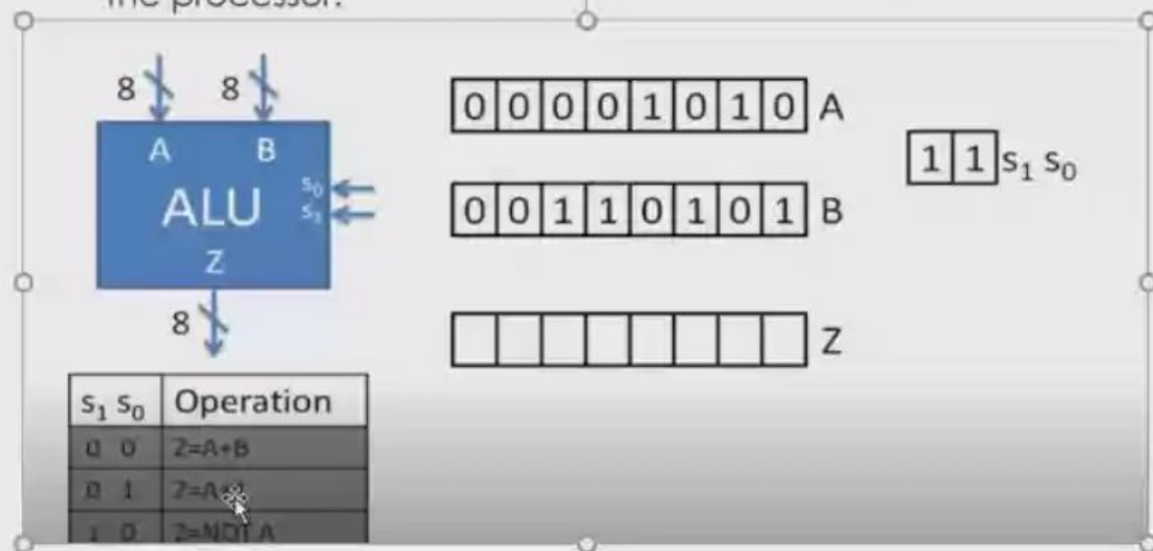
Arithmetic and Logic Unit (ALU)

- ▶ Most computer operations are executed in ALU of the processor.
- ▶ Load the operands into memory – bring them to the processor – perform operation in ALU – store the result back to memory or retain in the processor.
- ▶ Registers
- ▶ Fast control of ALU



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