MICROPROCESSOR

BCA 3RD SEMESTER 2020

LECTURE- 7

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DEPARTMENT OF COMPUTER SCIENCE

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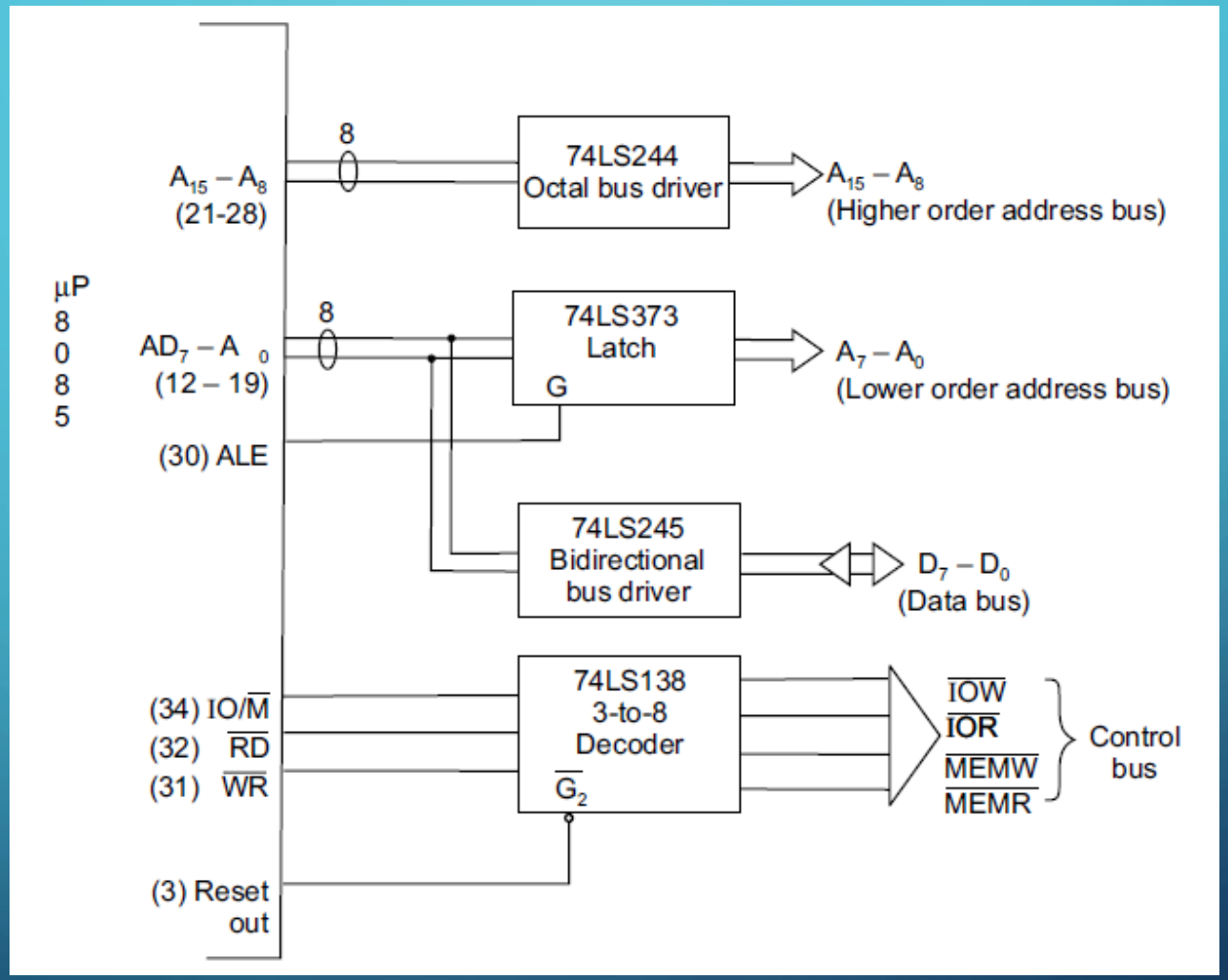
THREE BUSES (SEPARATELY) WITH THE HELP OF PERIPHERAL ICS



INSTRUCTION SET IN 8085 MICROPROCESSOR

Instruction

Instruction Set

Categories of Instruction Set

- data transfer (copy) group
- z arithmetic group
- z logical group
- z branch group
- z stack, I/O and machine control group.

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INSTRUCTION SET IN 8085 MICROPROCESSOR

- The arithmetic operations: addition, subtraction, increment and decrement.
- The logical operations: AND, OR, EXOR, compare, complement
- Branch operations: Jump, Call, Return and Restart
- The machine control operations: Halt, Interrupt and NOP (no operation).

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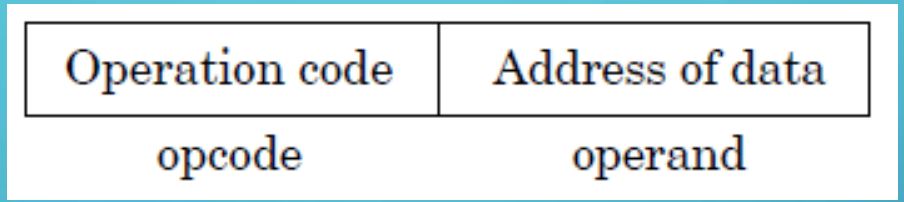
INSTRUCTION SET IN 8085 MICROPROCESSOR

- **An Instruction**



INSTRUCTION SET IN 8085 MICROPROCESSOR

Types of Instruction

1-byte instruction

2-byte instruction

3-byte instruction.

- 1-byte instruction : ADD B
- z 2-byte instruction : MVIC, 07
- z 3-byte instruction : LDA 4400

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INSTRUCTION SET IN 8085 MICROPROCESSOR

Types of Instruction

1-byte instruction

Opcode/Operand

2-byte instruction

Opcode	1st byte
Operand or data/address	2nd byte

3-byte instruction

Opcode	1st byte
Low order byte of address	2nd byte
High order byte of address	3rd byte

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ADDRESSING MODES IN 8085 MICROPROCESSOR

Different Addressing Modes

- Direct addressing LDA 4000, STA 5513
- Register addressing MOV A, B ADD D
- Register indirect addressing MOV A, M ADD M
- Immediate addressing MVI A, 07 ADI 0F
- Implicit addressing RAR, RAL, CMA

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INSTRUCTION SET IN 8085 MICROPROCESSOR

"INTR is different from the other interrupts"

Why?

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THANK YOU

End of Lecture- 7

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