



SNS COLLEGE OF ENGINEERING

(Autonomous)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



19EC401 – MICROPROCESSORS AND MICROCONTROLLERS



Guess Today's Topic????





ADDRESSING MODES OF 8085

To perform any operation, we have to give the corresponding instructions to the microprocessor.

In each instruction, programmer has to specify 3 things:

Operation to be performed.

Address of source of data.

Address of destination of result.





ADDRESSING MODES OF 8085



- The method by which the address of source of data or the address of destination of result is given in the instruction is called **Addressing Modes**.
- The term addressing mode refers to the way in which the operand of the instruction is specified.





TYPES OF ADDRESSING MODES



Intel 8085 uses the following addressing modes:

1. Direct Addressing Mode
2. Register Addressing Mode
3. Register Indirect Addressing Mode
4. Immediate Addressing Mode
5. Implicit Addressing Mode





DIRECT ADDRESSING MODES



In this mode, the address of the operand is given in the instruction itself.

LDA 2500 H-

Load the contents of memory location 2500 H in accumulator.

LDA is the operation.

2500 H is the address of source.

Accumulator is the destination.





REGISTER ADDRESSING MODES



In this mode, the operand is in general purpose register.

In this mode, the operand is in general purpose register.

MOV A, B

Move the contents of register B to A.

MOV is the operation.

B is the source of data.

A is the destination.





REGISTER INDIRECT ADDRESSING MODES

In this mode, the address of operand is specified by a register pair.

MOV A, M

Move data from memory location specified by H-L pair to accumulator.

MOV is the operation.

M is the memory location specified by H-L register pair.

A is the destination.





IMMEDIATE ADDRESSING MODE



In this mode, the operand is specified within the instruction itself.

MVI A, 05 H
Move 05 H in accumulator.

MVI is the operation.

05 H is the immediate data (source).

A is the destination.





IMPLICIT ADDRESSING MODE

If address of source of data as well as address of destination of result is fixed, then there is no need to give any operand along with the instruction.

CMA
Complement accumulator.

CMA is the operation.

A is the source.

A is the destination.





1. In 8085, HOW MANY ADDRESSING MODES ARE USED?

2. High priority interrupt in 8085 is -----

3.





THANK YOU

