



SNS COLLEGE OF TECHNOLOGY

An Autonomous Institution
Coimbatore-35



Accredited by NBA – AICTE and Accredited by NAAC – UGC with ‘A++’ Grade
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

MICROPROCESSORS AND MICROCONTROLLERS

II YEAR/ IV SEMESTER

UNIT 1 – 8085 AND 8086 ARCHITECTURE

TOPIC – Instruction set of 8085



Instruction set of 8085



Branching Instructions:

The branching instruction alter the normal sequential flow.

These instructions alter either unconditionally or conditionally.



Instruction set of 8085



Opcode	Operand	Description
JMP	16-bit address	Jump unconditionally

The program sequence is transferred to the memory location specified by the 16-bit address given in the operand.

Example: JMP 2034 H.



Instruction set of 8085



Opcode	Operand	Description
Jx	16-bit address	Jump conditionally

The program sequence is transferred to the memory location specified by the 16-bit address given in the operand based on the specified flag of the PSW.

Example: JZ 2034 H.



Instruction set of 8085



Opcode	Description	Status Flags
JC	Jump if Carry	CY = 1
JNC	Jump if No Carry	CY = 0
JP	Jump if Positive	S = 0
JM	Jump if Minus	S = 1
JZ	Jump if Zero	Z = 1
JNZ	Jump if No Zero	Z = 0
JPE	Jump if Parity Even	P = 1
JPO	Jump if Parity Odd	P = 0



Instruction set of 8085



Opcode	Operand	Description
CALL	16-bit address	Call unconditionally

The program sequence is transferred to the memory location specified by the 16-bit address given in the operand.

Before the transfer, the address of the next instruction after CALL (the contents of the program counter) is pushed onto the stack.

Example: CALL 2034 H.



Instruction set of 8085



Opcode	Description	Status Flags
CC	Call if Carry	CY = 1
CNC	Call if No Carry	CY = 0
CP	Call if Positive	S = 0
CM	Call if Minus	S = 1
CZ	Call if Zero	Z = 1
CNZ	Call if No Zero	Z = 0
CPE	Call if Parity Even	P = 1
CPO	Call if Parity Odd	P = 0



Instruction set of 8085



Opcode	Description	Status Flags
RC	Return if Carry	CY = 1
RNC	Return if No Carry	CY = 0
RP	Return if Positive	S = 0
RM	Return if Minus	S = 1
RZ	Return if Zero	Z = 1
RNZ	Return if No Zero	Z = 0
RPE	Return if Parity Even	P = 1
RPO	Return if Parity Odd	P = 0



Instruction set of 8085



The control instructions control the operation of microprocessor.

No operation is performed.

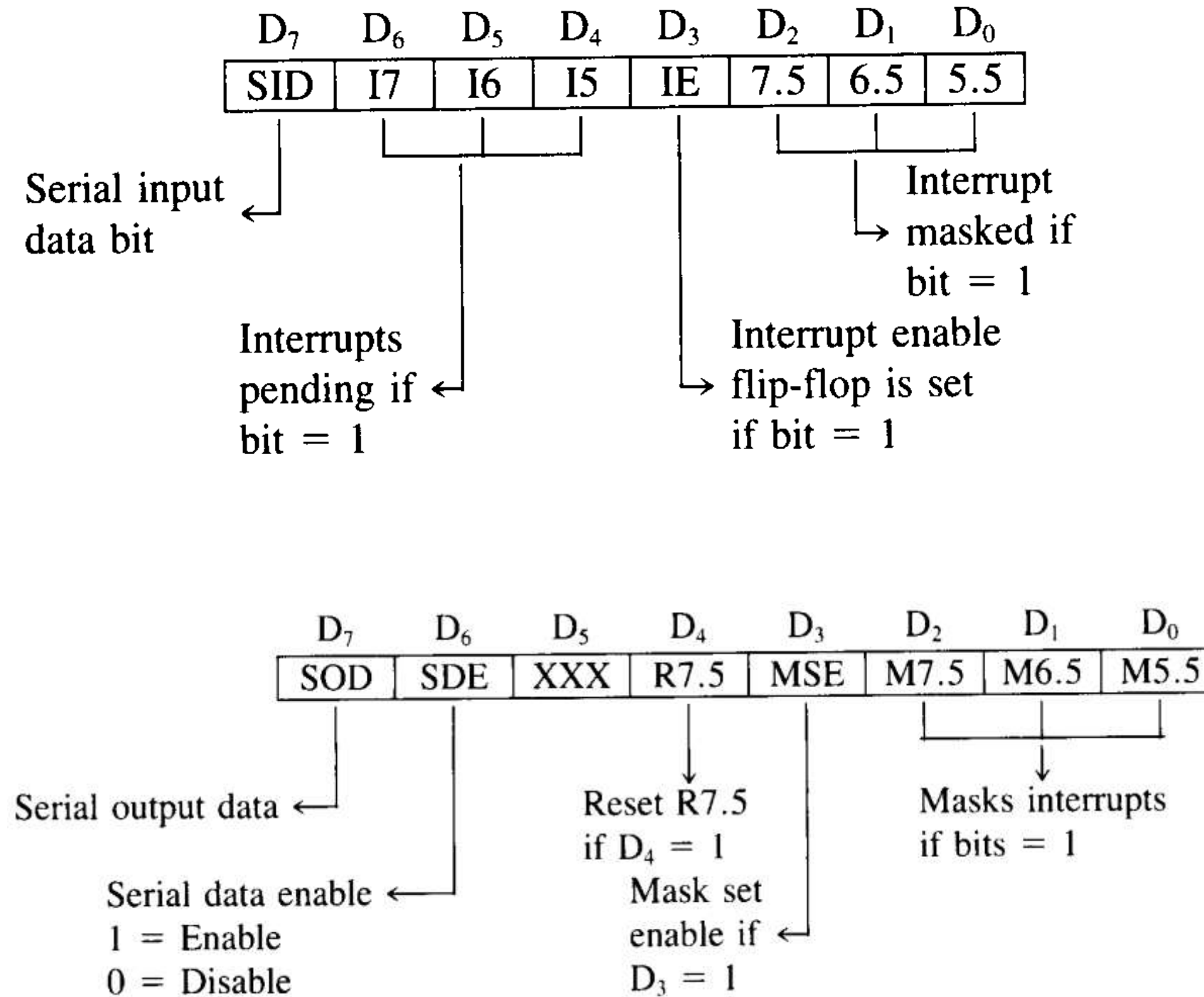
The instruction is fetched and decoded but no operation is executed.

Example: NOP

Opcode	Operand	Description
NOP	None	No operation



RIM AND SIM





THANK YOU