

MICROPROCESSOR ASSIGNMENT

To :
RAOفال SIR

By :
K.ANSAR
BSC CS

Topic :-

Instruction set in 8085
MICROPROCESSOR

⇒ Instruction set of 8085 =

- * Instruction is a binary pattern entered through an input device in memory to command the microprocessor to perform that specific function.
- * 8-bit microprocessor can have $2^8 = 256$ combinations of bit pattern.
- * 8085 microprocessor uses 246 combinations and represent 74 instructions. These 74 different instruction are called Instruction set.
- * It is classified into 5 groups :

a) Data Transfer Instructions =

MOVES data between registers /
between memory locations and registers.
Includes moves, loads, stores and
exchanges.

eg →

MOV B, A

MVI B, 4FH

LXI B, 2050H

LDA 2050H

STA 2070H

LDX B

STAX B

b) Arithmetic Instructions =

Adds, subtracts, increments or
decrements data in register / memory.

eg = ADD B

ADI 37H.

SUB B

SBB M

INR M

DCR D

INX B

DAD B

DCX B

c) Logical Instructions =

ANDs, ORs, XORs, compares, rotates /
complements data in registers /
between memory and a registers

eg = ANA B

ANI 74H.

ORA B

XRA B

XRA M

CMP B

CPI 34H

d) Branch Instructions =

Initiates conditional/unconditional
jumps, calls, returns and restarts.

eg = JMP 2050H, JZ 2050H,

CALL 2040H, RET

e) Machine control Instructions =

Includes instructions for maintaining the
stack, reading from input ports, clearing
flags, writing to output ports.

eg = HLT, NOP