

MIT LAB 1

U18CO021: Sahil Bondre

; 1. Store 8 bit data in memory

; store 0x25 in B

MVI B, 25H

; store address of 0x0001 to HL

LXI H, 0001H

; move data in B to M

MOV M, B

; 2. Exchange contents of memory

MVI C, 45H

LXI H, 0004H

; 0x0004 has 45

MOV M, C

;XCHG

LHLD 0001H

XCHG

LHLD 0004H

SHLD 0001H

XCHG

SHLD 0004H

; 3. Add 2 8 bit numbers

; clear accumulator

LDA 0000H

; B = 0x12

MVI B, 12H

; C = 0x10

MVI C, 10H

; A = B

ADD B

; A = B + C

ADD C

; 4. Subtract 2 8 bit numbers

; clear accumulator

LDA 0000H

ADD B

SUB C

; 5. Add 2 16 bit numbers

; first number

LXI B, 1001H

; second number

LXI D, 0112H

; clear HL

LXI H, 0000H

; Add numbers

DAD B

DAD D

; 6. Add contents of memory locations

; load contents of 0x0001 to A

LDA 0001H

; load 0x0020 to 0x0002

MVI C, 20H

LXI H, 0002H

MOV M, B

; add to accumulator

ADD M

; 7. Subtract 2 16 bit numbers

; first number

LXI H, 1001H

; move to de

XCHG

; second byte

LXI H, 1000H

; first byte

MOV A, E

SUB L

MOV L, A

; second byte

MOV A, D

SBB H

MOV H, A

SHLD 0003H

HLT