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**Admission No.: U18CO018**

**Practical Lab 1 (MIT)**

1. **Store 8-bit data in memory**

MVI A, 52H

STA 4000H

HLT

1. **Exchange the contents of memory locations**

LDA 2000H

MOV B, A

LDA 4000H

STA 2000H

MOV A, B

STA 4000H

1. **Add two 8-bit numbers**

LXI H 4000H

MOV A, M

INX H

ADD M

INX H

MOV M, A

HLT

1. **Subtract two 8-bit numbers**

LXI H, 4000H

MOV A, M

INX H

SUB M

INX H

MOV M, A

HLT

1. **Add two 16-bit numbers**

LHLD 4000H

XCHG

LHLD 4002H

MOV A, E

ADD L

MOV L, A

MOV A, D

ADC H

MOV H, A

SHLD 4004H

HLT

1. **Add contents of two memory locations**

LXI H, 4000H

MOV A, M

INX H

ADD M

MOV M, A

MVI A, 00

ADC A

INX H

MOV M, A

HLT

1. **Subtract two 16-bit numbers**

LHLD 4000H

XCHG

LHLD 4002H

MOV A, E

SUB L

MOV L, A

MOV A, D

SBB H

MOV H, A

SHLD 4004H

HLT