#### **ASIAN SCHOOL OF MANAGEMENT AND TECHNOLOGY**

[Affiliated to Tribhuvan University]



#### **ASSIGNMENT: KIT LAB REPORT OF MICROPROCESSOR**

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Submission Date: / /2080

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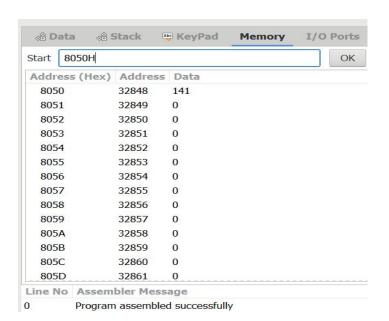
### 1.Write a program to add 56H and 37H and store the sum in memory address 8050H.

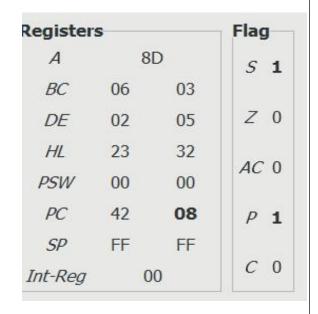
MVI A, 56H

ADI 37H

STA 8050H

HLT





## 2. Write a program to add two number store in 8050H and 8051H and store the sum in 8052H.

LDA 8050H

MOV H, A

LDA 8051H

ADD H

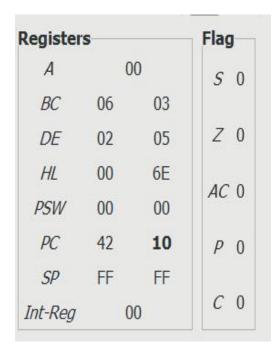
MOV L, A

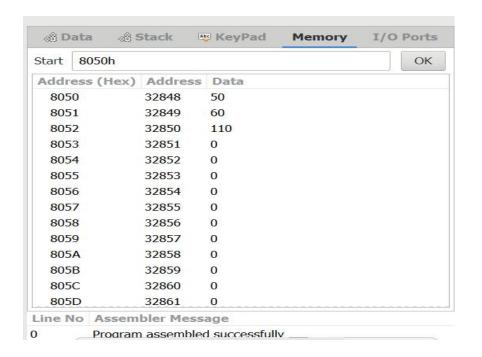
MVI A, 00

MOV H, A

SHLD 8052H

HLT





# 3. Write a program to subtract 37H from 52H and store the difference in memory address 8050.

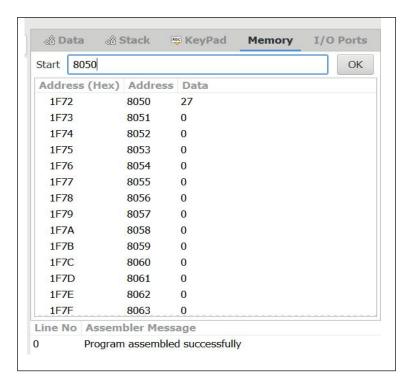
MVI A, 52H

**SUI 37H** 

STA 8050

HLT

Register	S		Flag
Α	1	В	5 0
BC	06	03	
DE	02	05	Z 0
HL	00	6E	40.0
PSW	00	00	AC 0
PC	42	08	P 1
SP	FF	FF	
Int-Reg	0	0	C 0

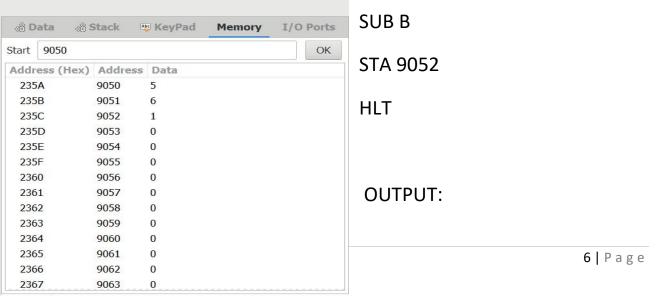


4. Write a program to find the difference of number stored in location 9050 and 9051 and stored the difference in 9052.

LDA 9050

MOV B, A

LDA 9051



Line No Assembler Message

egister	S		Flag	-
Α		01	S	0
BC	05	00		
DE	00	00	Z	0
HL	00	00	4.0	^
PSW	00	00	AC	0
PC	42	OC.	P	0
SP	FF	FF	10000	
Int-Reg		00	C	0

5. Write a program to find greater number between two number stored in location 8050H and 8051H and stored the bigger number in memory address 9050H.

LDA 8050H

MOV B, A

LDA 8051

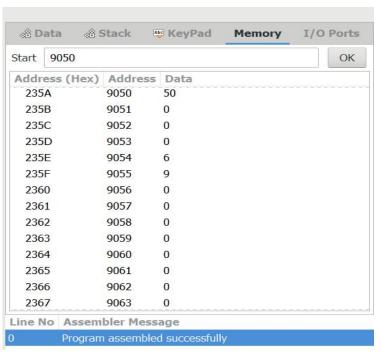
CMP B

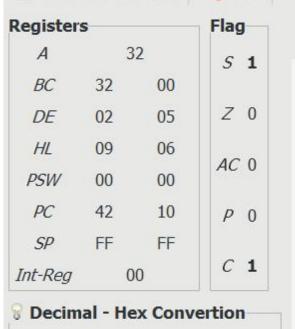
**JNC GREATER** 

MOV A, B

**GREATER: STA 9050** 

HLD





# 6. Write a program to find a given number is positive or negative and if positive store in location 8050 if negative store in 8051.

LDA 9050H

MOV B, A

RAL

**JC NEGATIVE** 

MVI A,00H

**RAR** 

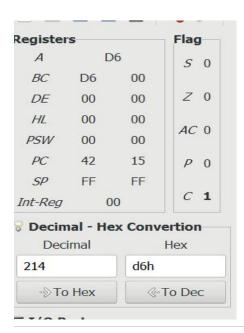
MOV A, B

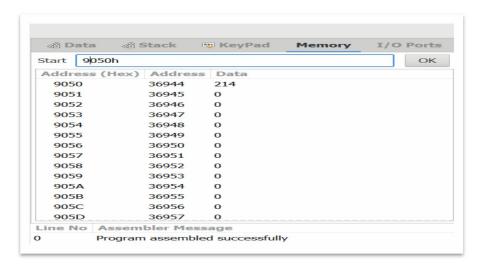
STA 8050H

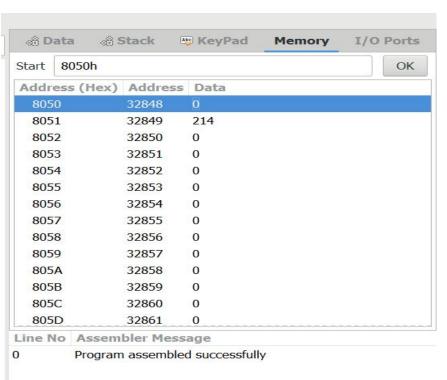
**NEGATIVE: MOV A, B** 

STA 8051H

**HLT** 







## 7. Write a program to find a given number is even or odd and if even stored in location 9050H and if odd stored in 9051H.

LDA 8050H

**ANI 01H** 

JZ EVEN

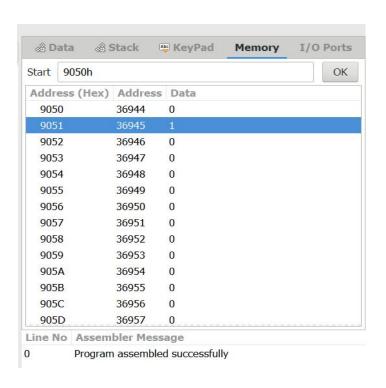
**MVI A, 01H** 

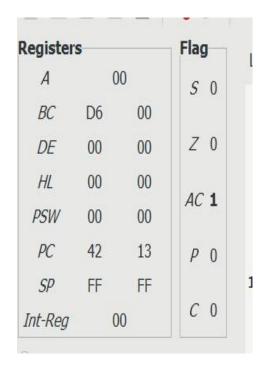
STA 9050H

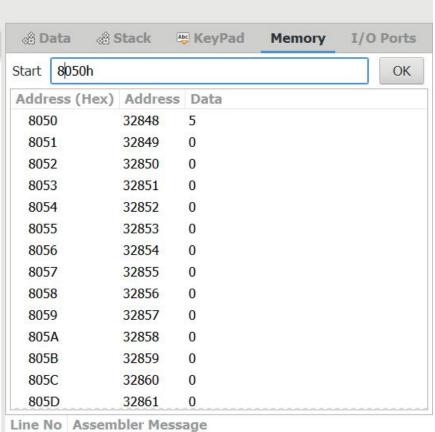
EVEN: MVI A, 00H

STA 9050H

HLT







0 Program assembled successfully

8. Write a program to add two 16 bits numbers stored in location 9050,9051 and 9052,9053 and then stored the sum in 9054 and 9055.

LHLD 9050

**XCHG** 

LHLD 9052

DAD D

MVI C,00H

**JNC LOOP** 

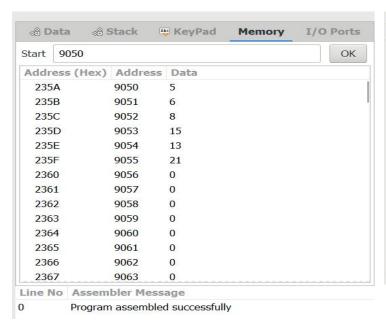
**INR C** 

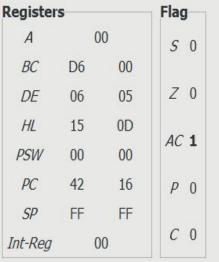
LOOP: SHLD 9054

MOV A, C

STA 9056

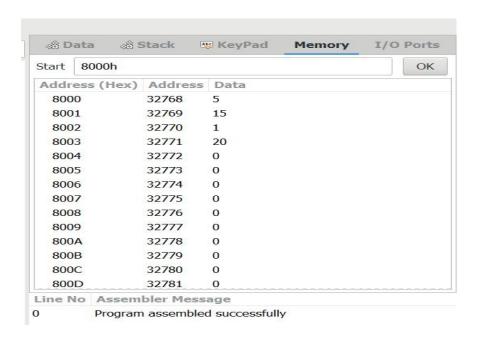
HLT





9. Write a program to add two number stored in location 8000 and 8001 store the sum of addition in 8003 and carry in 8002.
MVI C,00
LDA 8000H
MOV B, A
LDA 8001H
ADD B
STA 8003H
INR C
MOV A, C
STA 8002H
HLT
OUTPUT:





# 10. WAP to multiply two number stored in location 8002 and 8003 and stored the product in 8084.

LDA 8000

MOV D, A

LXI H, 8003

MOV C, M

BACK: DCR C

JZ SKIP

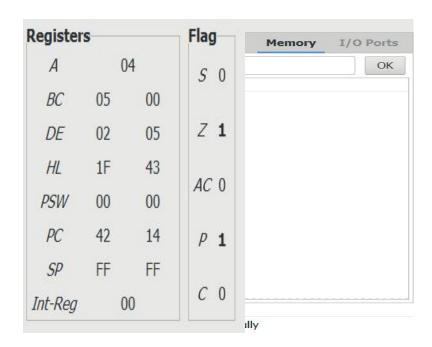
ADD D

JMP BACK

SKIP: STA 8004

HLT

#### **OUTPUT:**



## 11.WAP to find quotient and remainder and store quotient at location 8050 and remainder at location 8051.

LXI H,8000

MOV B, M

**MVI C,00** 

INX H

MOV A, M

**NEXT: CMP B** 

JC LOOP

SUB B

**INR C** 

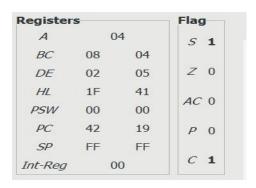
JMP NEXT

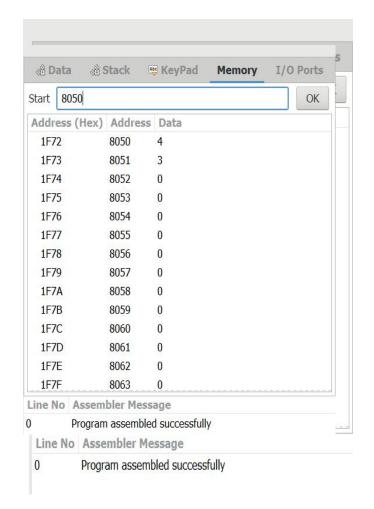
LOOP: STA 8081

MOV A, C

STA 8050

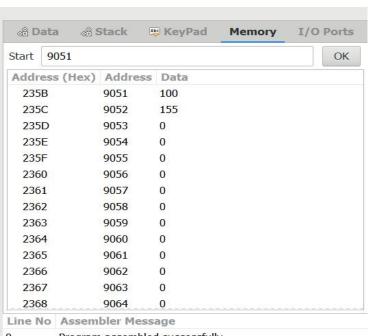
HLT





12. Find compliment of a number store in the location 9051 and store its compliment in location 9052.
LDA 9051
CMA
STA 9052
HLT
OUTPUT:

egister	S		Flag	1
Α	9B		5	1
BC	08	04	新花科	
DE	02	05	Z	0
HL	1F	41	10	٥
PSW	00	00	AC	U
PC	42	08	P	0
SP	FF	FF		
Int-Reg	0	00	C	1



0 Program assembled successfully

# 13. Find compliment 2's of a number stored in location 8050 and store its compliment at location.

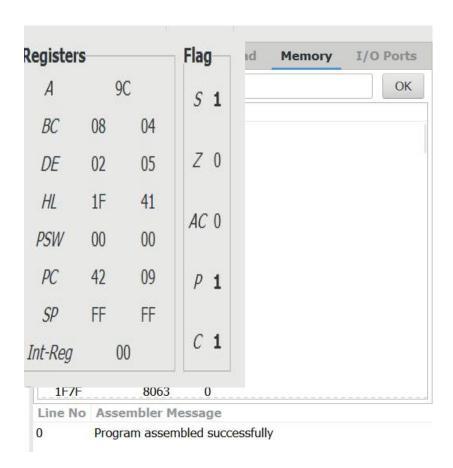
LDA 8050

CMA

INR A

STA 8051

HLT



## 14. Find the greatest number out of 10 number stored from location 9010 and number stored the greatest number at location 9060.

LXI H,9010

MOV C, M

INX H

DCR C

MOV A, M

Skip: INX H

CMP M

JNC LOOP

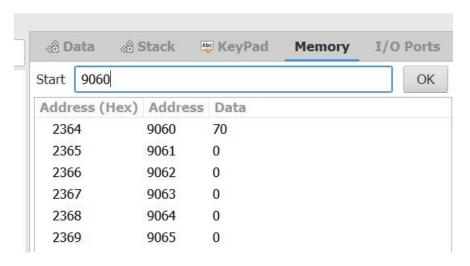
MOV A, M

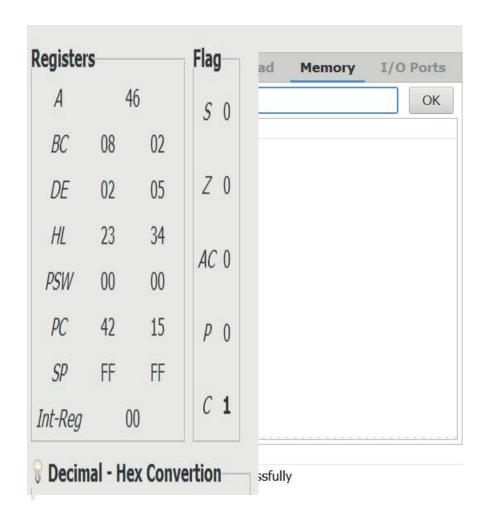
LOOP: DCR C

**JNC Skip** 

STA 9060

HLT





## 15. Find the smallest number out of 10 number stored from location 9010 and store the smallest at location 9060.

LXI H, 9010

MOV C, M

INX H

MOV B, M

DCR C

LOOP: INX H

MOV A, M

CMP B

**JNC Skip** 

MOV B, A

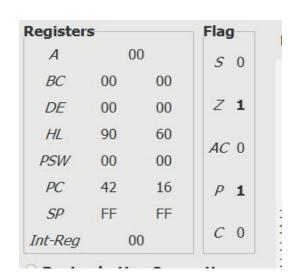
Skip: DCR C

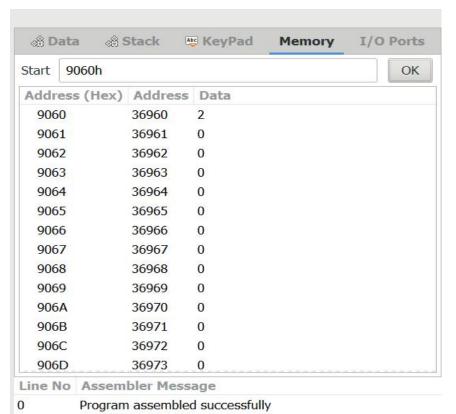
JNZ LOOP

LXI H,9060H

MOV M, B

HLT





## 16. WAP to copy 10 data from memory location 8050 to new memory location 9050.

LXI H,8050H

LXI D,9050H

MVI B,10H

LOOP:MOV A, M

STAX D

**INX H** 

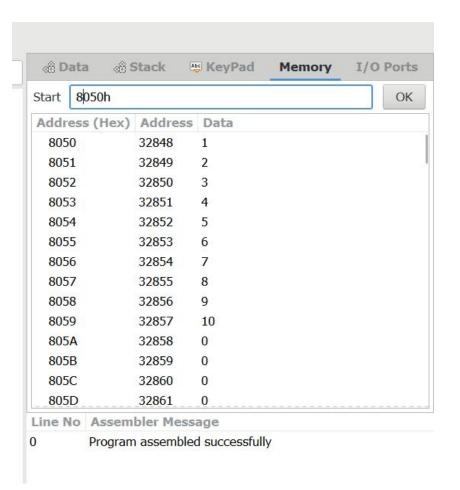
INX D

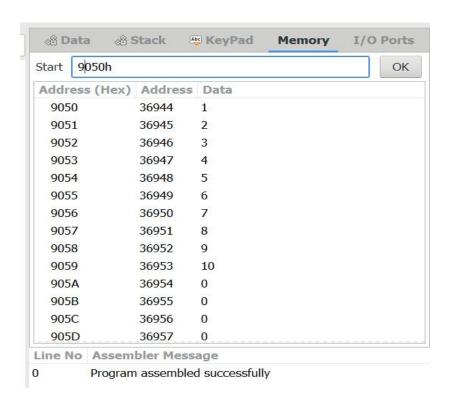
DCR B

JNZ LOOP

HLT

Register	S	100	Flag	
А	00		5	0
BC	00	00		
DE	90	60	Z	1
HL	80	60	100	^
PSW	00	00	AC	U
PC	42	11	P	1
SP	FF	FF		
Int-Reg	0	00	C	0





### 17. WAP to generate 10 even numbers.

MVI A,00H

MVI B,02H

MVI C, OAH

LXI H,9200H

LOOP: ADDB

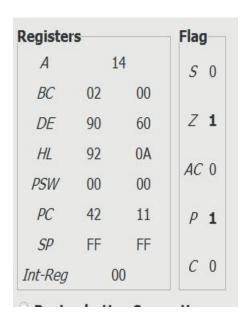
MOV M, A

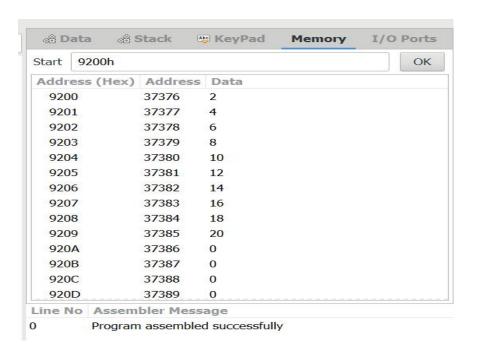
INX H

DCR C

JNZ LOOP

HLT





#### 18. WAP to generate 10 odd number.

MVI A,01H

MVI B,02H

MVI C,0AH

LXI H, 9050H

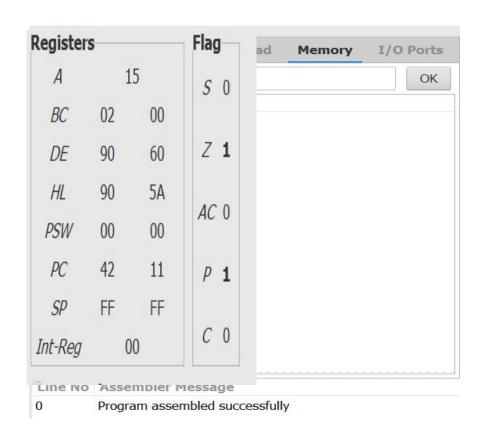
LOOP: ADD B

MOV M, A

**INX H** 

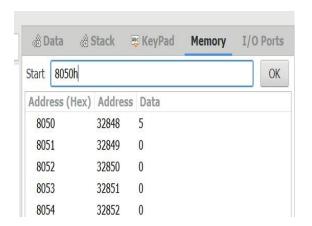
DCR C

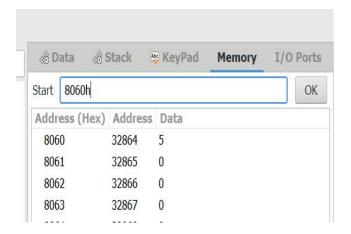
HLT

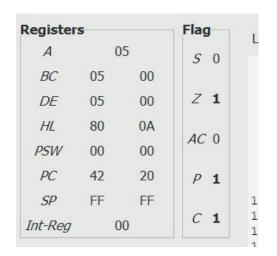


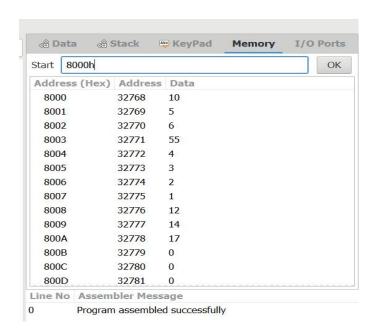
## 19.WAP to count even number or odd number out of 10 number and store even number in location 8050H and odd number in location 8060H.

LXI H,8000H MOV C, M MVI B,00H MVI D,00H LOOP2: INX H MOV A, M RAR JC LOOP1 **INR B** JMP LOOP3 LOOP1: INR D LOOP3: DCR C JNZ LOOP2 MOV A, B STA 8050h MOV A, D STA 8060h HLT









# 20.WAP to sort given 10 numbers from memory location 8200H in ascending order.

MVI B, 09

START: LXI H, 8200H

MVI C,0AH

BACK: MOV A, M

INX H

CMP M

**JNC SKIP** 

MOV D, M

MOV M, A

DCX H

MOV M, D

INX H

SKIP: DCR C

JNZ BACK

DCR B

**JNZ START** 

HLT

