

**Microprocessor and Interfacing Lab**  
**(EE-329)**  
**LAB MANUAL**  
**V<sup>th</sup> SEMESTER**



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**LIST OF PROGRAMS**

<b>SR. NO.</b>	<b>NAME OF THE PROGRAMS</b>
1.	Write Assembly Language Program to load an 8-bit of data in accumulator and move it to register B. Also load a 8-bit of data in register C and move it in register D. Verify the content of various registers.
2.	Write Assembly Language Program to add two 8-bit hexadecimal numbers stored at memory locations 2300H and 2301H. The result is 8-bit hexadecimal number. Store the result at memory location 2400H. Load the program from memory location 2000H.
3.	Write Assembly Language Program to add two 8-bit hexadecimal numbers stored at memory locations 2200H and 2201H. The result is 8-bit hexadecimal number. Store the result at memory location 2300H. Load the program from memory location 2000H.
4.	Write Assembly Language Program to add two 8-bit hexadecimal numbers stored at memory locations 2200H and 2201H. The result is 16-bit hexadecimal number. Store the result at memory location 2300H & 2301 H. Load the program from memory location 2000H.
5.	Write Assembly Language Program to add five 8-bit hexadecimal numbers stored at memory locations 2400H onward. The result is 16-bit hexadecimal number. Store the result at memory location 2500H & 2501H Load the program from memory location 2000H.
6.	Write Assembly Language Program to find out largest number among two 8-bit hexadecimal numbers stored at memory locations 2300H and 2301H. Store the result at memory location 2400H. Load the program from memory location 2000H.
7.	Write Assembly Language Program to find out smallest number among two 8-bit hexadecimal numbers stored at memory locations 2300H and 2301H. Store the result at memory location 2400H. Load the program from memory location 2000H.

8.	Write Assembly Language Program to find out smallest number among three 8-bit hexadecimal numbers stored at memory locations 2300H, 2301 and 2302H. Store the result at memory location 2400H. Load the program from memory location 2000H.
9.	Write Assembly Language Program to arrange four hexadecimal numbers in descending order stored at memory locations 2100H onward. Store the result at memory location 2200H. Load the program from memory location 2000H.
10.	Write Assembly Language Program to arrange four hexadecimal numbers in ascending order stored at memory locations 2100H onward. Store the result at memory location 2200H. Load the program from memory location 2000H.

**EXPERIMENT NO. 1**

**AIM:** Write Assembly Language Program to load a 8-bit of data in accumulator and move it to register B. Also load a 8-bit of data in register C and move it in register D. Verify the content of various registers.

**SPECIFICATION OF APPARATUS REQUIRED**

- Microprocessor programming kit (Intel 8085).
- Power supply.
- Hex Code Manual.

**PROGRAM:**

Address	Instruction	Hex Code	Comment
2000	MVI A , Data-1	3E	Move Data-1 in Accumulator
2001		Data-1	
2002	MOV B , A	47	Move Data-1 in register B from Accumulator
2003	MVI C , Data-2	0E	Move Data-2 in register C
2004		Data-2	
2005	MOV D , C	51	Move Data-2 in register D from register C
2006	RST 5	EF	Stop the program

**Data-1**

05H

**Data-2**

07H

**PROCEDURE:****Steps of loading of a program:**

- (i) Press RESET
- (ii) Press EXMEM
- (iii) Write the starting location of the memory where you want to store your program (for e.g. 2000H).

After loading your program press FILL.

**Steps of execution of a program:**

- (i) Press GO.
- (ii) Write the starting location of the memory where you have loaded your program.
- (iii) Press. (dot).

**Steps of verification of content of various registers:**

- (i) Press RESET.
- (ii) Press SHIFT.
- (iii) Press EXREG (for examine the contents of registers).
- (iv) Press A (then the content of accumulator will be displayed).
- (v) Press NEXT (for examine the content of other registers).

**PRECAUTIONS:**

- Check the initial condition whether Microprocessor reset or not.
- Check the power supply.
- Be cautious while loading hexadecimal code of mnemonics.

**RESULT AND COMMENTS:**

Name of Register	Content
A	05
B	05
C	07
D	07
E	7B
F	44
I	07
H	27
L	F9
PCH	20
PCL	07
SPH	27

SPL	B4
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**APPLICATIONS:** Microprocessors are widely used in

1. Single board micro computers
2. Personal Computers
3. Super Minis and CAD
4. Instrumentation
5. Control
6. Communication
7. Office Automation and Publication

ECE DEPT.

**EXPERIMENT NO. 2**

**AIM:** Write Assembly Language Program to add two 8-bit hexadecimal numbers stored at memory locations 2300H and 2301H. The result is 8-bit hexadecimal number. Store the result at memory location 2400H. Load the program from memory location 2000H.

**SPECIFICATION OF APPARATUS REQUIRED**

- Microprocessor programming kit (Intel 8085).
- Power supply.
- Hex Code Manual.

**PROGRAM:**

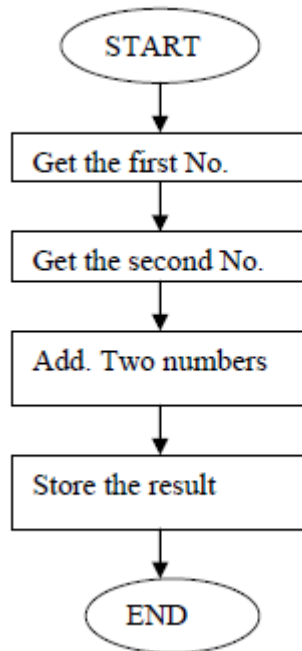
Address	Instruction	Hex Code	Comment
2000	LXI H , 2300	21	Load the address of 1 <sup>st</sup> number in H-L pair register
2001		00	
2002		23	
2003	MVI A , M	7E	Bring 1 <sup>st</sup> number in accumulator
2004	INX H	23	Increment the H-L pair register by one
2005	Add M	86	Add 1 <sup>st</sup> number with 2 <sup>nd</sup> number
2006	STA 2400	32	Store the content of accumulator at memory location 2400
2007		00	
2008		24	
2009	RST 5	EF	Stop the program

**Data – 1**

2300H – A4H  
2301H – 27H

**Data - 2**

2300H – 9AH  
2301H – B3H

**FLOWCHART:****PROCEDURE:****Steps of loading of a program:**

- (iv) Press RESET
- (v) Press EXMEM
- (vi) Write the starting location of the memory where you want to store your program (for e.g. 2000H).

After loading your program press FILL.

**Steps of execution of a program:**

- (iv) Press GO.
- (v) Write the starting location of the memory where you have loaded your program.
- (vi) Press. (dot).

**Steps of verification of content of various registers:**

- (vi) Press RESET.
- (vii) Press SHIFT.
- (viii) Press EXREG (for examine the contents of registers).
- (ix) Press A (then the content of accumulator will be displayed).
- (x) Press NEXT (for examine the content of other registers).
- (xi)



**PRECAUTIONS:**

- Check the initial condition whether Microprocessor reset or not.
- Check the power supply.
- Be cautious while loading hexadecimal code of mnemonics

**RESULT AND COMMENTS:**

Result – 1

Result – 2

ECE DEPTT.

**EXPERIMENT NO. 3**

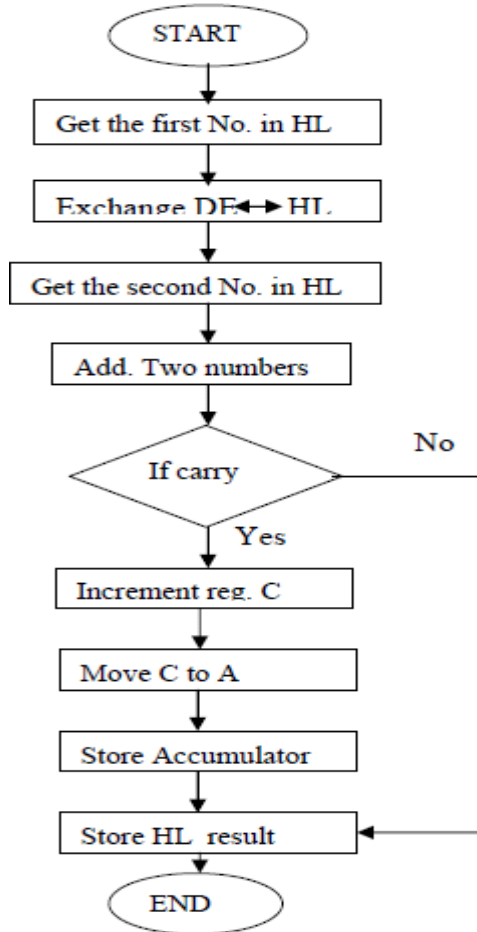
**AIM:** Write Assembly Language Program to add two 8-bit hexadecimal numbers stored at memory locations 2200H and 2201H. The result is 8-bit hexadecimal number. Store the result at memory location 2300H. Load the program from memory location 2000H.

**SPECIFICATION OF APPARATUS REQUIRED:**

- Microprocessor programming kit (Intel 8085).
- Power supply.
- Hex Code Manual.

**PROGRAM:**

Address	Instruction	Hex Code	Comment
2000	LXIH 2200	21	Initialize the HL pair to memory location 2200
2001		00	
2002		22	
2003	MOV A,M	7E	Move the memory content to Accumulator
2004	INXH	23	Increment the address of HL pair
2005	ADDM	86	Add the contents of memory to accumulator
2006	STA2300	32	Store the result at 2300.
2007		00	
2008		23	
2009	RST5	EF	End

**FLOWCHART:****PROCEDURE:****Steps of loading of a program:**

- (vii) Press RESET
- (viii) Press EXMEM
- (ix) Write the starting location of the memory where you want to store your program (for e.g. 2000H).

After loading your program press FILL.

**Steps of execution of a program:**

- (vii) Press GO.
- (viii) Write the starting location of the memory where you have loaded your program.
- (ix) Press. (dot).

**Steps of verification of content of various registers:**

- (xii) Press RESET.
- (xiii) Press SHIFT.

- (xiv) Press EXREG (for examine the contents of registers).
- (xv) Press A (then the content of accumulator will be displayed).
- (xvi) Press NEXT (for examine the content of other registers).

**PRECAUTIONS:**

- Check the initial condition whether Microprocessor reset or not.
- Check the power supply.
- Be cautious while loading hexadecimal code of mnemonics.

**RESULT AND COMMENTS:**

Result – 1

2300H .....  
Carry Flag .....

Result – 2

2301H .....  
Carry Flag .....

Result is verified and find correct.

ECE DEPT.

**EXPERIMENT NO. 4**

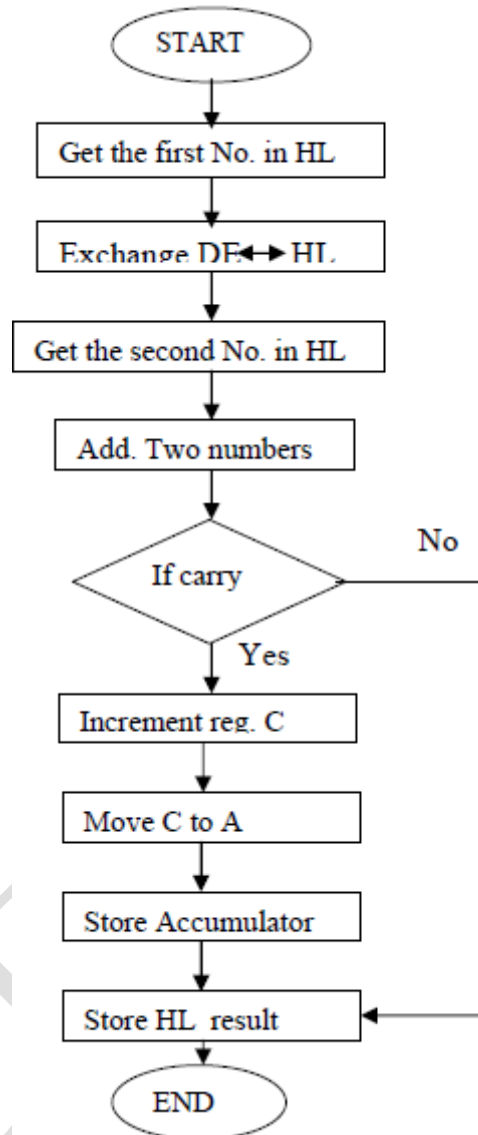
**AIM:** Write Assembly Language Program to add two 8-bit hexadecimal numbers stored at memory locations 2200H and 2201H. The result is 16-bit hexadecimal number. Store the result at memory location 2300H & 2301 H. Load the program from memory location 2000H.

**SPECIFICATION OF APPARATUS USED:**

- Microprocessor programming kit (Intel 8085).
- Power supply.
- Hex Code Manual.

**PROGRAM:**

Address	Instruction	Hex Code	Comment
2000	LXIH 2200	21	Initialize the HL pair to memory location 2200
2001		00	
2002		22	
2003	MVI B00	06	Move 00 immediately to register B
2004		00	
2005	MOV A,M	7E	Move the memory content to Accumulator
2006	INXH	23	Increment the address of HL pair
2007	ADDM	86	Add the contents of memory to accumulator
2008	JNC201C	D2	Jump to memory location 210C if carry is not generated result
2009		0C	
200A		20	
200B	INRB	04	Increment register B
200C	STA2300	32	Store the content of accumulator at 2300.
200D		00	
200E		23	
200F	MOV A,B	78	Move the content of register B to Accumulator
2010	STA23001	32	Store the content of accumulator at 2301.
2011		01	
2012		23	
2013	RST5	EF	END

**FLOWCHART:****PROCEDURE:****Steps of loading of a program:**

- (x) Press RESET
- (xi) Press EXMEM
- (xii) Write the starting location of the memory where you want to store your program (for e.g. 2000H).

After loading your program press FILL.

**Steps of execution of a program:**

- (x) Press GO.

- (xi) Write the starting location of the memory where you have loaded your program.
- (xii) Press. (dot).

**Steps of verification of content of various registers:**

- (xvii) Press RESET.
- (xviii) Press SHIFT.
- (xix) Press EXREG (for examine the contents of registers).
- (xx) Press A (then the content of accumulator will be displayed).
- (xxi) Press NEXT (for examine the content of other registers).

**PRECAUTIONS:**

- Check the initial condition whether Microprocessor reset or not.
- Check the power supply.
- Be cautious while loading hexadecimal code of mnemonics.

**RESULT AND COMMENTS:**

Result – 1

2300H .....  
Carry Flag .....

Result – 2

2301H .....  
Carry Flag .....

Result is verified and find correct.

**EXPERIMENT NO. 5**

**AIM:** Write Assembly Language Program to add five 8-bit hexadecimal numbers stored at memory locations 2400H onward. The result is 16-bit hexadecimal number. Store the result at memory location 2500H & 2501H Load the program from memory location 2000H.

**SPECIFICATION OF APPARATUS USED:**

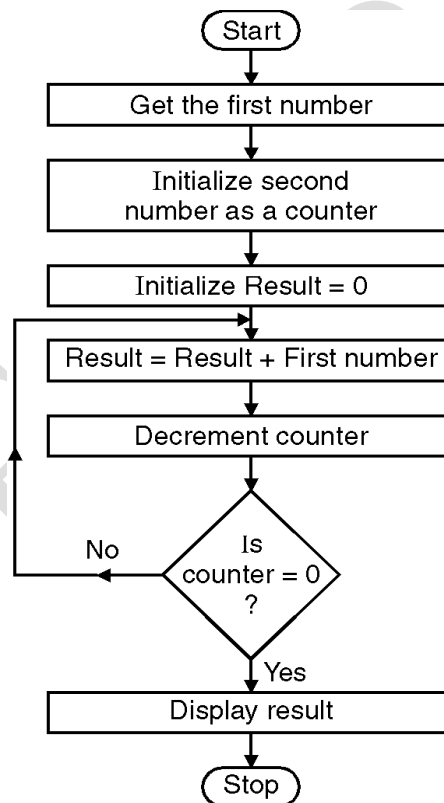
- Microprocessor programming kit (Intel 8085).
- Power supply.
- Hex Code Manual.

**PROGRAM:**

Address	Instruction	Hex Code	Comment
2000	LXIH2400	21	Initialize the HL pair to memory location 2400
2001		00	
2002		24	
2003	MVIB00	06	Move 00 immediately to register B
2004		00	
2005	MVIC04	0E	Move 04 immediately to register C
2006		04	
2007	MOVA,M	7E	Move the memory content to Accumulator
2008	INXH	23	Increment the address of HL pair
2009	ADDM	86	Add the contents of memory to accumulator
200A	JNC200E	D2	Jump to memory location 200E if carry is not generated in result
200B		0E	
200C		20	
200D	INRB	04	Increment register B
200E	DCRC	0D	Decrement the content of register C by one.
200F	JNZ2008	C2	Jump to memory location 2008 is the content of register C is not Zero.
2010		08	
2011		20	
2012	STA2500	32	Store the content of accumulator at 2301.
2013		00	
2014		25	
2015	MOVA,B	78	Move the content of register B to Accumulator



2016	STA 2501	32	Store the content of accumulator at 2501.
2017		01	
2018		25	
2019	RST5	EF	END

**FLOWCHART:****PROCEDURE:****Steps of loading of a program:**

- (xiii) Press RESET
- (xiv) Press EXMEM
- (xv) Write the starting location of the memory where you want to store your program (for e.g. 2000H).

After loading your program press FILL.

**Steps of execution of a program:**

- (xiii) Press GO.
- (xiv) Write the starting location of the memory where you have loaded your program.
- (xv) Press. (dot).

**Steps of verification of content of various registers:**

- (xxii) Press RESET.
- (xxiii) Press SHIFT.
- (xxiv) Press EXREG (for examine the contents of registers).
- (xxv) Press A (then the content of accumulator will be displayed).
- (xxvi) Press NEXT (for examine the content of other registers).

**PRECAUTIONS:**

- Check the initial condition whether Microprocessor reset or not.
- Check the power supply.
- Be cautious while loading hexadecimal code of mnemonics.

**RESULT AND COMMENTS:**

Result – 1

2500H .....

Result – 2

2501H .....

**EXPERIMENT NO. 6**

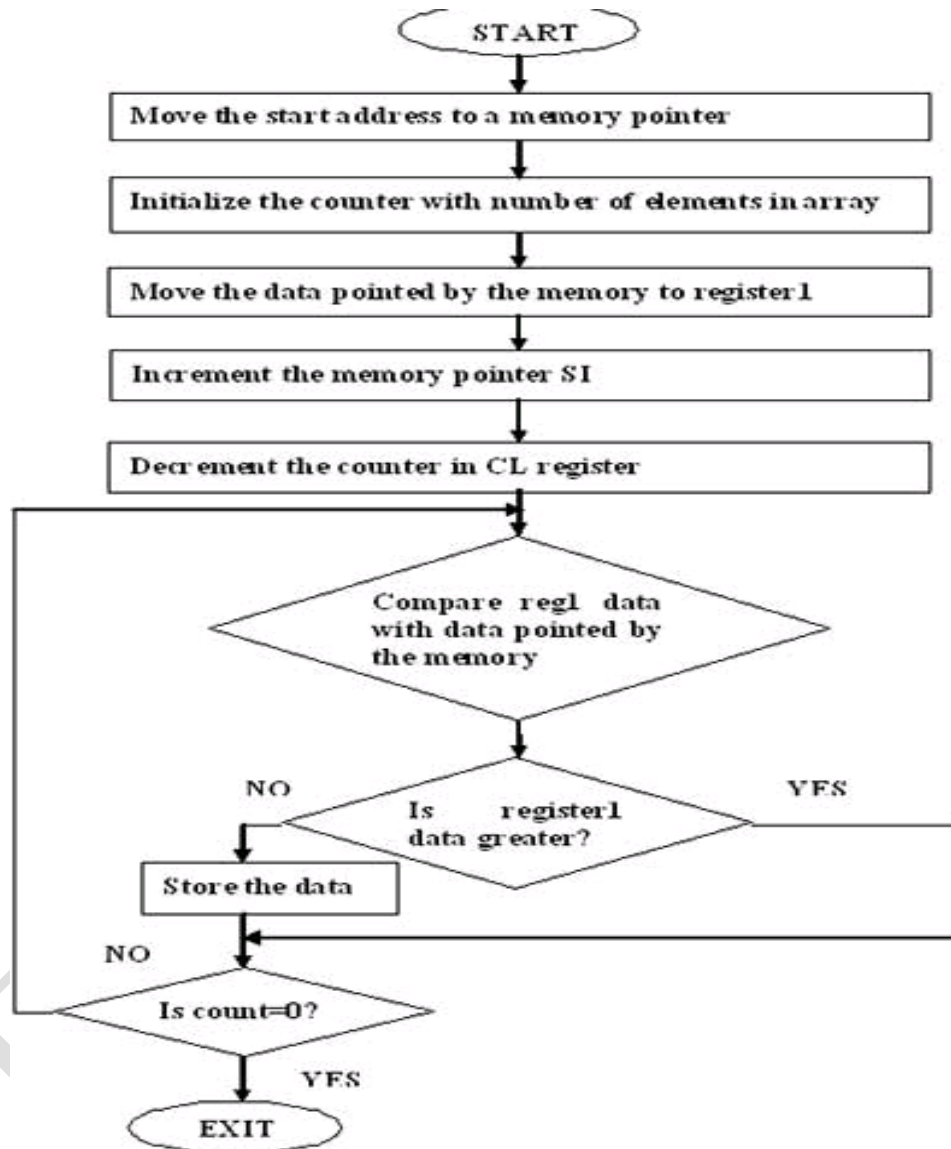
**AIM:** Write Assembly Language Program to find out largest number among two 8-bit hexadecimal numbers stored at memory locations 2300H and 2301H. Store the result at memory location 2400H. Load the program from memory location 2000H.

**SPECIFICATION OF APPARATUS USED:**

- Microprocessor programming kit (Intel 8085).
- Power supply.
- Hex Code Manual.

**PROGRAM:**

Address	Instruction	Hex Code	Comment
2000	LXIH 2300	21	Initialize the HL pair to memory location 2400
2001		00	
2002		23	
2003	MOVA,M	7E	Move the memory content to Accumulator
2004	INXH	23	Increment the address of HL pair
2005	CMP M	BE	Compare the content of Accumulator with Memory
2006	JNC200A	D2	Jump to memory location 200A if carry is not generated in result
2007		0A	
2008		20	
2009	MOVA,M	7E	Move the content of memory to Accumulator
200A	STA2400	32	Store the content of accumulator at 2400.
200B		00	
200C		24	
200D	RST5	EF	END

**FLOWCHART:****PROCEDURE:****Steps of loading of a program:**

- (xvi) Press RESET
- (xvii) Press EXMEM
- (xviii) Write the starting location of the memory where you want to store your program (for e.g. 2000H).

After loading your program press FILL.

**Steps of execution of a program:**

- (xvi) Press GO.
- (xvii) Write the starting location of the memory where you have loaded your program.
- (xviii) Press. (dot).

**Steps of verification of content of various registers:**

- (xxvii) Press RESET.
- (xxviii) Press SHIFT.
- (xxix) Press EXREG (for examine the contents of registers).
- (xxx) Press A (then the content of accumulator will be displayed).
- (xxxi) Press NEXT (for examine the content of other registers).

**PRECAUTIONS:**

- Check the initial condition whether Microprocessor reset or not.
- Check the power supply.
- Be cautious while loading hexadecimal code of mnemonics.

**RESULT AND COMMENTS:**

Result                                              2400H .....

**EXPERIMENT NO. 7**

**AIM:** Write Assembly Language Program to find out smallest number among two 8-bit hexadecimal numbers stored at memory locations 2300H and 2301H. Store the result at memory location E000H. Load the program from memory location 2000H.

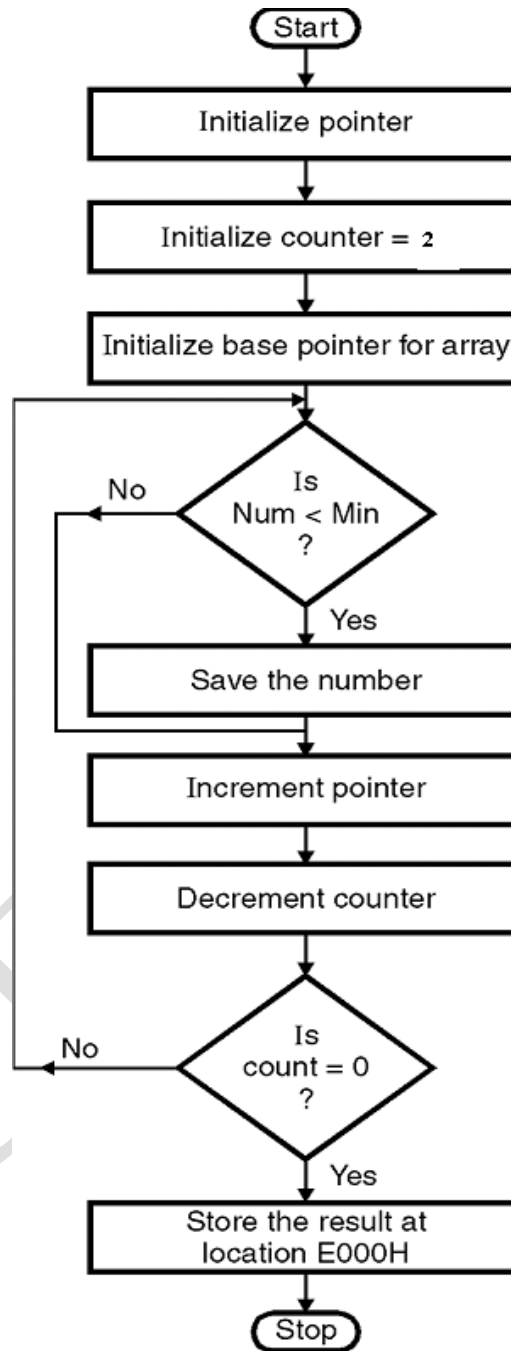
**SPECIFICATION OF APPARATUS USED:**

- Microprocessor programming kit (Intel 8085).
- Power supply.
- Hex Code Manual.

**PROGRAM:**

Address	Instruction	Hex Code	Comment
2000	LXIH 2300	21	Initialize the HL pair to memory location 2400
2001		00	
2002		23	
2003	MOVA,M	7E	Move the memory content to Accumulator
2004	INXH	23	Increment the address of HL pair
2005	CMP M	BE	Compare the content of Accumulator with Memory
2006	JC200A	DA	Jump to memory location 200A if carry is not generated in result
2007		0A	
2008		20	
2009	MOVA,M	7E	Move the content of memory to Accumulator
200A	STA2400	32	Store the content of accumulator at 2400.
200B		00	
200C		24	
200D	RST5	EF	END

## FLOWCHART:



**PROCEDURE:****Steps of loading of a program:**

- (xix) Press RESET
- (xx) Press EXMEM
- (xxi) Write the starting location of the memory where you want to store your program (for e.g. 2000H).

After loading your program press FILL.

**Steps of execution of a program:**

- (xix) Press GO.
- (xx) Write the starting location of the memory where you have loaded your program.
- (xxi) Press. (dot).

**Steps of verification of content of various registers:**

- (xxxii) Press RESET.
- (xxxiii) Press SHIFT.
- (xxxiv) Press EXREG (for examine the contents of registers).
- (xxxv) Press A (then the content of accumulator will be displayed).
- (xxxvi) Press NEXT (for examine the content of other registers).

**PRECAUTIONS:**

- Check the initial condition whether Microprocessor reset or not.
- Check the power supply.
- Be cautious while loading hexadecimal code of mnemonics.

**RESULT AND COMMENTS:**

Result E000H .....



**EXPERIMENT NO. 8**

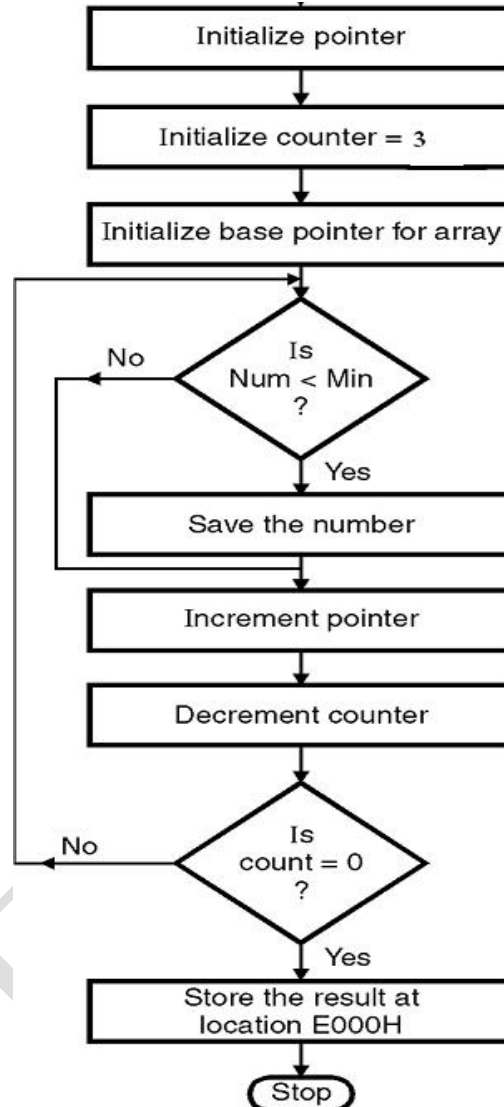
**AIM:** Write Assembly Language Program to find out smallest number among three 8-bit hexadecimal numbers stored at memory locations 2300H, 2301H and 2302H. Store the result at memory location 2400H. Load the program from memory location E000H.

**SPECIFICATION OF APPARATUS USED:**

- Microprocessor programming kit (Intel 8085).
- Power supply.
- Hex Code Manual.

**PROGRAM:**

Address	Instruction	Hex Code	Comment
2000	LXIH 2300	21	Initialize the HL pair to memory location 2400
2001		00	
2002		23	
2003	MVIB02	06	Immediately move 02 in register B
2004		02	
2005	MOVA,M	7E	Move the memory content to Accumulator
2006	INXH	23	Increment the address of HL pair
2008	JC200C	DA	Jump to memory location 200A if carry is not generated in result
2009		0C	
200A		20	
200B	MOVA,M	7E	Move the content of memory to Accumulator
200C	DCR B	05	Decrement the register B by one.
200D	JNZ2006	C2	Jump 2006 if register B is not Zero
200E		06	
200F		20	
2010	STA2400	32	Store the content of accumulator at 2400.
2011		00	
2012		24	
2013	RST5	EF	END

**FLOWCHART:****PROCEDURE:****Steps of loading of a program:**

- (xxii) Press RESET
- (xxiii) Press EXMEM
- (xxiv) Write the starting location of the memory where you want to store your program (for e.g. 2000H).

After loading your program press FILL.

**Steps of execution of a program:**

- (xxii) Press GO.
- (xxiii) Write the starting location of the memory where you have loaded your program.
- (xxiv) Press. (dot).

**Steps of verification of content of various registers:**

- (xxxvii) Press RESET.
- (xxxviii) Press SHIFT.
- (xxxix) Press EXREG (for examine the contents of registers).
- (xl) Press A (then the content of accumulator will be displayed).
- (xli) Press NEXT (for examine the content of other registers).

**PRECAUTIONS:**

- Check the initial condition whether Microprocessor reset or not.
- Check the power supply.
- Be cautious while loading hexadecimal code of mnemonics.

**RESULT AND COMMENTS:**

Result E000H .....

**EXPERIMENT NO. 9**

**AIM:** Write Assembly Language Program to arrange four hexadecimal numbers in descending order stored at memory locations 2100H onward. Store the result at memory location 2200H. Load the program from memory location 2000H.

**SPECIFICATION OF APPARATUS USED:**

- Microprocessor programming kit (Intel 8085).
- Power supply.
- Hex Code Manual.

**PROGRAM:**

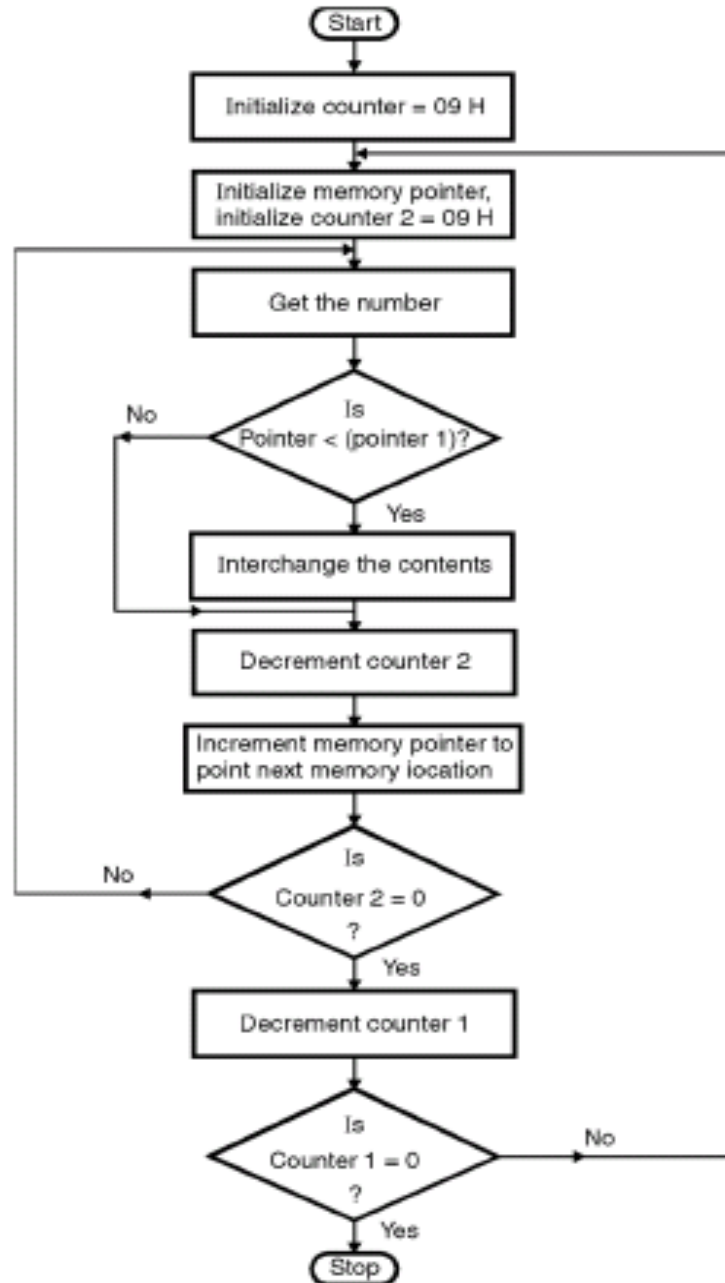
Address	Instruction	Hex Code	Comment
2000	LXI SP 2900	31	Initialize the Stack pointer to memory location 2900
2001		00	
2002		29	
2003	LXIB2200	01	Initialize the BE pair to memory location 2200
2004		00	
2005		22	
2006	MVID04	16	Immediately move 04 in register D
2007		04	
2008	LXIH 2100	21	Initialize the HL pair to memory location 2100
2009		00	
200A		21	
200B	MVI E03	1E	Immediately move 03 in register E
200C		03	
200D	MOVA,M	7E	Move the memory content to Accumulator
200E	INXH	23	Increment the address of HL pair
200F	CMPM	BE	Compare the content of Accumulator with Memory
2010	JNC2014	DA	Jump to memory location 2014 if carry is not generated in result
2011		14	
2012		20	
2013	MOVA,M	7E	Move the memory content to Accumulator
2014	DCRE	1D	Decrement the register E by one.
2015	JNZ200E	C2	Jump 200E if register E is not Zero
2016		0E	
2017		20	

2018	STAXB	02	Store the Register Pair B-C
2019	INXB	03	Increment the Register pair B-C
201A	CALL2500	CD	Call Subroutine from Memory Location 2500
201B		00	
201C		25	
201D	DCR B	15	Decrement the register B by one.
201E	JNZ2008	C2	Jump 2006 if register B is not Zero
201F		08	
2020		20	
2021	RST5	EF	End

**SUBROUTINE:**

Address	Instruction	Hex Code	Comment
2500	MVI E 04	1E	Immediately move 04 in register E
2501		04	
2502	LXIH 2100	21	Initialize the HL pair to memory location 2100
2503		00	
2504		21	
2505	CMPM	BE	Compare the content of Accumulator with Memory
2506	JZ250E	CA	Jump 250E if Zero bit of Flag register high.
2507		0E	
2508		25	
2509	INXH	23	Increment the address of HL pair
250A	DCRE	1D	Decrement the register E by one
250B	JNZ2505	C2	Jump 2505 if register E is not Zero
250C		05	
250D		25	
250E	MVIM00	36	Immediately move FF in Memory
250F		00	
2510	RET	C9	Return to Main Programme

## FLOWCHART:



**PROCEDURE:****Steps of loading of a program:**

(xxv) Press RESET

(xxvi) Press EXMEM

(xxvii) Write the starting location of the memory where you want to store your program (for e.g. 2000H).

After loading your program press FILL.

**Steps of execution of a program:**

(xxv) Press GO.

(xxvi) Write the starting location of the memory where you have loaded your program.

(xxvii) Press. (dot).

**Steps of verification of content of various registers:**

(xlii) Press RESET.

(xlili) Press SHIFT.

(xliv) Press EXREG (for examine the contents of registers).

(xlv) Press A (then the content of accumulator will be displayed).

(xlvi) Press NEXT (for examine the content of other registers).

**PRECAUTIONS:**

- Check the initial condition whether Microprocessor reset or not.
- Check the power supply.
- Be cautious while loading hexadecimal code of mnemonics.

**RESULT AND COMMENTS:**

Result is verified and find correct.

**EXPERIMENT NO. 10**

**AIM:** Write Assembly Language Program to arrange four hexadecimal numbers in ascending order stored at memory locations 2100H onward. Store the result at memory location 2200H. Load the program from memory location 2000H.

**SPECIFICATION OF APPARATUS USED:**

- Microprocessor programming kit (Intel 8085).
- Power supply.
- Hex Code Manual.

**PROGRAM:**

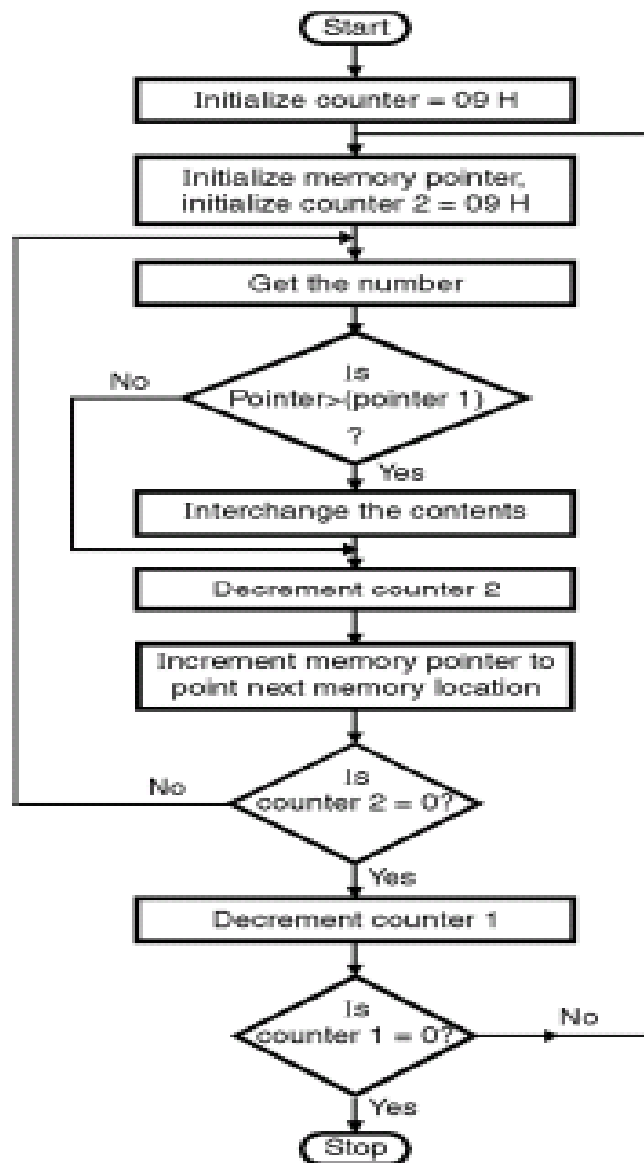
Address	Instruction	Hex Code	Comment
2000	LXI SP 2900	31	Initialize the Stack pointer to memory location 2900
2001		00	
2002		29	
2003	LXIB2200	01	Initialize the BE pair to memory location 2200
2004		00	
2005		22	
2006	MVID04	16	Immediately move 04 in register D
2007		04	
2008	LXIH 2100	21	Initialize the HL pair to memory location 2100
2009		00	
200A		21	
200B	MVI E03	1E	Immediately move 03 in register E
200C		03	
200D	MOVA,M	7E	Move the memory content to Accumulator
200E	INXH	23	Increment the address of HL pair
200F	CMPM	BE	Compare the content of Accumulator with Memory
2010	JNC2014	DA	Jump to memory location 2014 if carry is not generated in result
2011		14	
2012		20	
2013	MOVA,M	7E	Move the memory content to Accumulator
2014	DCRE	1D	Decrement the register E by one.
2015	JNZ200E	C2	Jump 200E if register E is not Zero
2016		0E	
2017		20	



2018	STAXB	02	Store the Register Pair B-C
2019	INXB	03	Increment the Register pair B-C
201A	CALL2500	CD	Call Subroutine from Memory Location 2500
201B		00	
201C		25	
201D	DCR B	15	Decrement the register B by one.
201E	JNZ2008	C2	Jump 2006 if register B is not Zero
201F		08	
2020		20	
2021	RST5	EF	End

**SUBROUTINE:**

Address	Instruction	Hex Code	Comment
2500	MVI E 04	1E	Immediately move 04 in register E
2501		04	
2502	LXIH 2100	21	Initialize the HL pair to memory location 2100
2503		00	
2504		21	
2505	CMPM	BE	Compare the content of Accumulator with Memory
2506	JZ250E	CA	Jump 250E if Zero bit of Flag register high.
2507		0E	
2508		25	
2509	INXH	23	Increment the address of HL pair
250A	DCRE	1D	Decrement the register E by one
250B	JZ2505	C2	Jump 2505 if register E is Zero
250C		05	
250D		25	
250E	MVIMFF	36	Immediately move FF in Memory
250F		FF	
2510	RET	C9	Return to Main Program

**FLOWCHART:****PROCEDURE:****Steps of loading of a program:**

(xxviii) Press RESET

(xxix) Press EXMEM

(xxx) Write the starting location of the memory where you want to store your program (for e.g. 2000H).

After loading your program press FILL.

**Steps of execution of a program:**

(xxviii) Press GO.

(xxix) Write the starting location of the memory where you have loaded your program.

(xxx) Press. (dot).

**Steps of verification of content of various registers:**

(xlvii) Press RESET.

(xlviii) Press SHIFT.

(xlix) Press EXREG (for examine the contents of registers).

(l) Press A (then the content of accumulator will be displayed).

(li) Press NEXT (for examine the content of other registers).

**PRECAUTIONS:**

- Check the initial condition whether Microprocessor reset or not.
- Check the power supply.
- Be cautious while loading hexadecimal code of mnemonics.

**RESULT AND COMMENTS:**

Result is verified and find correct.