SAGARMATHA ENGINEERING COLLEGE

(TU Affiliated)

Sanepa, Lalitpur

LAB NO: 6

A LAB REPORT ON

EXECUTION OF 8085 PROGRAM IN 8085 TRAINER KIT (HARDWARE).

Submitted By

Name: …….

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Date: …….

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MICROPROCESSOR LAB-06

TITLE

SIMULATION OF 8085 PROGRAM IN 8085 TRAINER KIT (HARDWARE).

Objective

- ✓ To be able to run simple programs in 8085 trainer kit.

Execution using trainer kit (*with manual assembling*)

```
;Assume [6050H]=96H
      LDA 6050H
      CMA
      STA 6051H
      RST 1
      HLT
```

Address	Value	Remarks
6050H	*96H*	*Manually loaded content*
6000H		*Op-code of **LDA** instruction*
6001H		
6002H		
6003H		
6004H		
6005H		
6006H		
6007H		
6008H		
6051H		

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Procedure

1. To see/change/load data/program (*using manual assembling*) to the memory or register
    a. COMMAND = (**S**)
    b. SUBSTUT? (**enter**)
        i. Memory (**enter**)
            1. Enter the memory address ***(Eg. 6000H)*** to see/change
        ii. Register
            1. Enter the name of the register to examine/alter
        iii. I/O

2. Steps to write a code using (*using inbuilt assembler*):
    a. (**E**) to expand
    b. (**A**) to select 2 pass assembler
    c. (**enter**) 3 times
    d. File exists (**N**)
    e. Are you sure? (**enter**)
    f. RT
        C = (**W**) to write the code

        0001: **ORG 6000H**

        0002: **MVI A, 32H**

        …

        … **RST 1**

        00..: **HLT** (to represent the end of the code)

    Ctrl + C to get out from write mode
    g. RT
        C = (**A**) to assemble the code
        Save to DSTN (Y/N)? **Y** (enter)

3. To execute the code
    a. Get back to the starting screen (press **Esc, Esc, Esc**)
    b. Command = **G**
    c. GOTO? (**enter**)
        i. BUSRT (**enter**)
        ii. Single step
        iii. Break point
            1. ADDR **6000 (enter)** - (Assuming 6000 is the starting address of the code)

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Problems

Execution using trainer kit (*with inbuilt 2-pass assembler*)

Q1. Assemble the following program and observe the output.

```
        ORG 6000H
        LXI SP,60FFH
        CALL L1
        MOV B, A
        RST 1
        HLT
L1:     INR A
        RET
```

Address/Register	Previous Value	After Execution	Remarks
60FDH			
60FEH			
A			
B			

Q2. WAP to add upper and lower nibble of a data stored at 7000H, and store the final result at 7050H.

Result

Hence, all the given programs are executed and the results are verified.