**WORKSHEET 2.2**

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**Branch:** CSE  **Section:** PH0BCS804-A

**Semester:** 04 **Date of Performance:** 28/03/2022

**Subject Name:** Microprocessor and Interfacing Lab **Subject Code:** 20CSP-253

**1. Task to be done:**

1’s and 2’s complement of a 16 bit number.

**2. Simulator used:**

Jubin – 8085-Microprocessor Simulator.

**3. Algorithm:**

1. Load a 16-bit number into registers.
2. Move lower byte to accumulator.
3. Complement the number present in the accumulator.
4. Now move content of accumulator to lower byte again.
5. Move the content of higher byte into accumulator.
6. Complement the number present in accumulator.
7. Move the content of accumulator to higher byte.
8. Store the result in 2003H and increase the result by 1.
9. Store the final result at 2005H.
10. Stop the instruction.

**4. Code1:**

#BEGIN 0000H

LHLD 2000H

MOV A, L

CMA

MOV L, A

MOV A, H

CMA

MOV H, A

SHLD 2003H

INX H

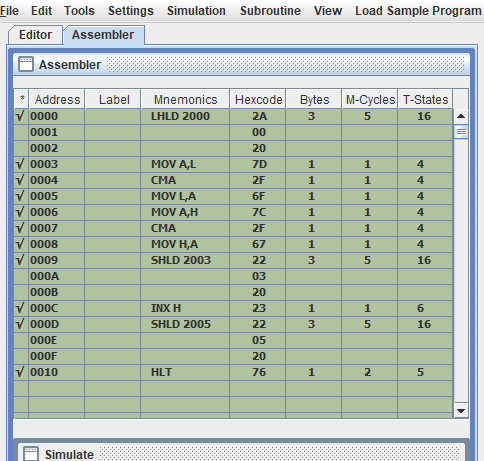
SHLD 2005H

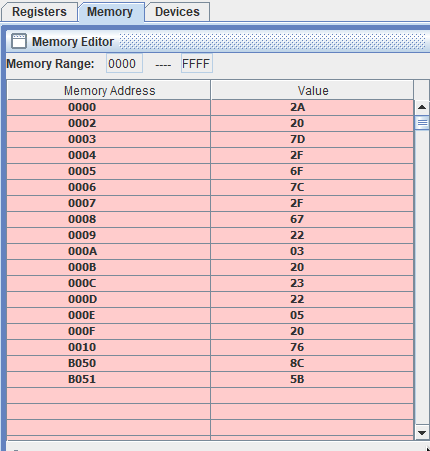
HLT

#ORG B050

#DB 8CH,5BH

**4. Result/Output/Writing Summary:**

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