DEPARTMENT OF ACADEMIC AFFAIRS

Discover. Learn. Empower.

NAAC GRADE A+ ACCREDITED UNIVERSITY

Experiment : 5

Student Name: Ashish Sharma **UID: 19BCS1696**
Branch: CSE **Section/Group: 5/C**
Semester: 4th **Subject Name: MPI lab**
Date Performance:19-03-21 **Subject Code:CSP-277**

1. Aim/Overview of the practical: 1's complement of 8 bit number, 2's complement of 8 bit number

2. Task to be done: Finding 1's and 2's compliment of 8 bit numbers

3. Apparatus/Simulator used **(For applied/experimental sciences/materials**

Jubin 8085 simulator used.

4. Algorithm/Flowchart (For programming based labs)**:**

There is a simple algorithm to convert a binary number into 1's complement. To get 1's complement of a binary number, simply invert the given number. You can simply implement logic circuit using only NOT gate for each bit of Binary number input. Implementation of logic circuit of 4-bit 1's complement is given as following below.

5. Description/ Code:

1's complement of 8 bit number

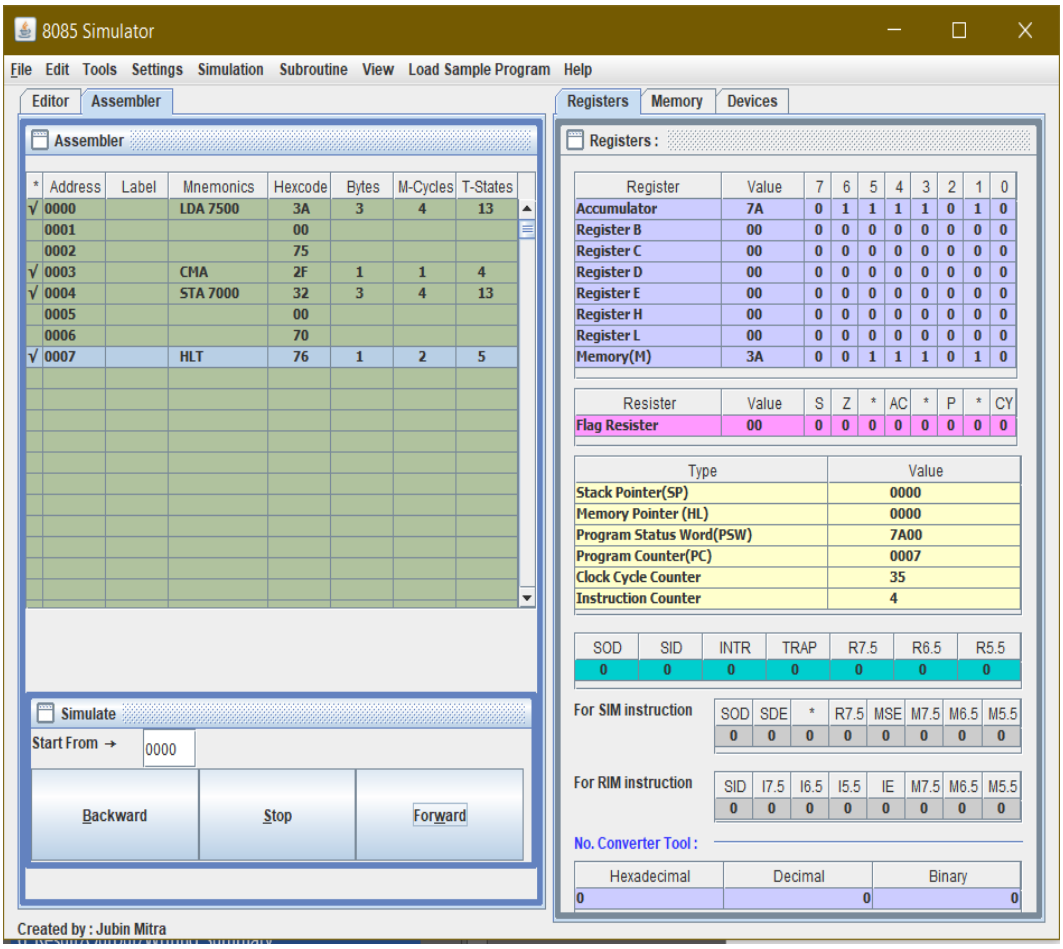
```
LDA 7500H
CMA
STA 7000H
HLT
#ORGIN 7500H
#DB 85H
```

2's complement of 8 bit number

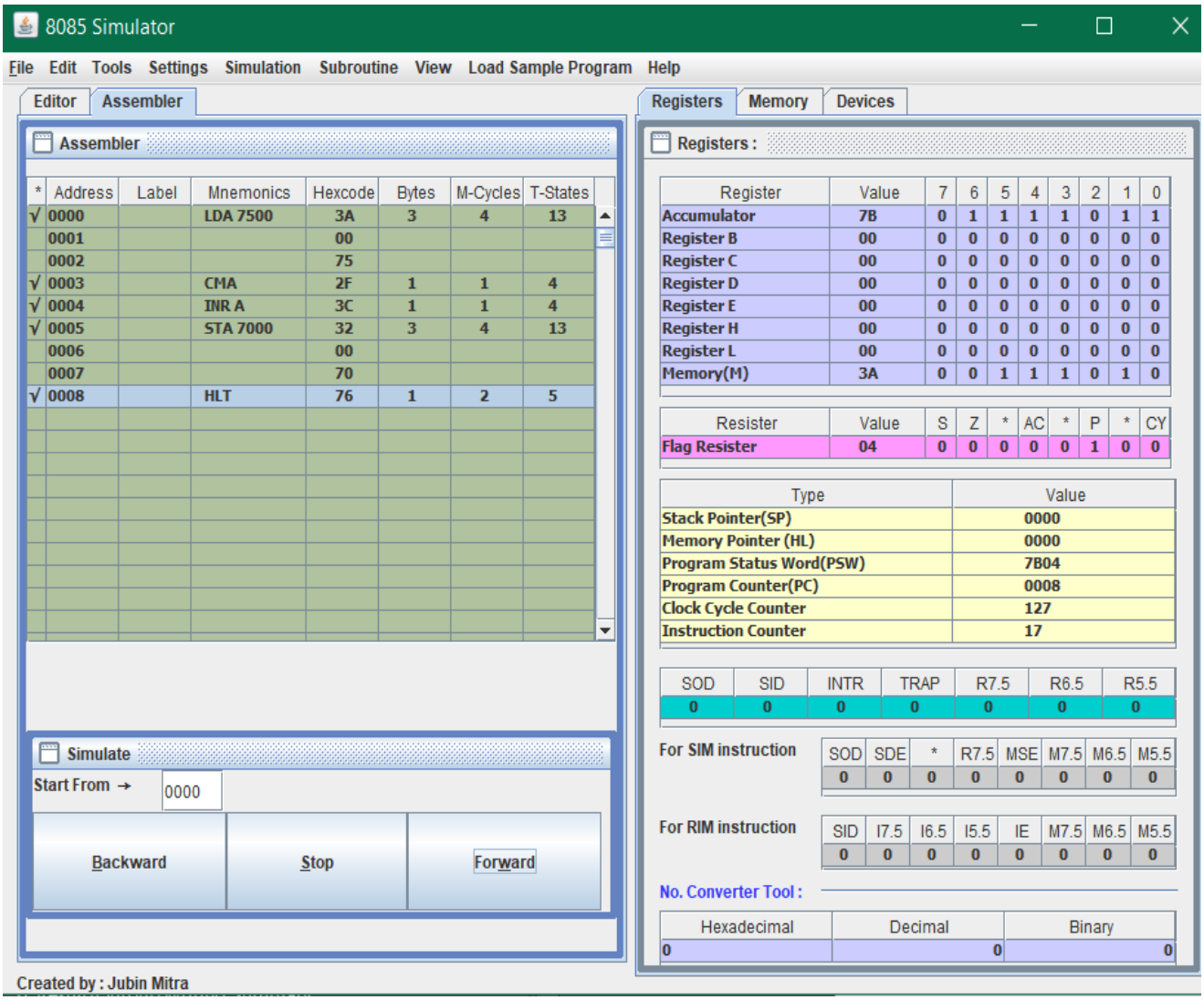
```
LDA 7500H
CMA
INR A
STA 7000H
HLT
#ORGIN 7500H
#DB 85H
```

6. Result/Output/Writing

Summary: 1's complement of 8 bit number



2's complement of 8 bit number



Learning outcomes (What I have learnt):

1. Learned about 1's compliment
2. Learned about 2's compliment
3. Learned about how to work on Jubin.

Evaluation Grid (To be created as per the SOP and Assessment guidelines by the faculty):

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.			
2.			
3.			