LABSHEET 1: INTRODUCTION TO 8085 MICROPROCESSORS

Name: **Roll Number:**

1. Convert the binary number 01000101 to hexadecimal.
2. Convert the hex number 0x63F to binary.
3. Give the signed representations of the decimal 45 in 8-bit binary and hexadecimal.
4. Specify the signed and unsigned decimal representations of the 8-bit hex number 0x95.
5. Convert the signed binary number $(11011010)_2$ to signed decimal.
6. For the unsigned 8-bit number system, the basis elements are {128,64,32,16,8,4,2,1}. What are the basis elements of signed 8-bit number system?
7. Give the representations of -54 in 8-bit binary and hexadecimal.
8. What are the possible values of 8-bit signed numbers?
9. What are the possible values of 8-bit unsigned numbers?
10. Download a simulator for simple 8-bit processor 8085 in the below link https://gnusim8085.github.io/
11. Fill the machine code for the following assembly program

Assembly	Instruction size	Memory Address	Object Binary Code	Object Code in Hex
Code1: MVI A, 32H MVI B, 48H ADD B OUT 01H HLT				
Code2: MVI A,01H STA 4500H HLT				

Code 3:
LDA 1000H
MOV B, A
LDA 2000H
STA 1000H
MOV A, B
STA 2000H
HLT				

Code 4: MVI A,55H CMA STA 1001H MVI A,00H HLT				