COMPUTER SCIENCE AND ENGINEERING DEPARTMENT

UCS617: Microprocessor based Systems Design

LAB ASSIGNMENT

8085 Microprocessor

1. Introduction of 8085-microprocessor kit and steps for execution on the kit.
2. Familiarity with 8085-microprocessor kit.
   - i) Write a program to store 8-bit data into one register and then copy that to all registers.
   - ii) Write a program for addition of two 8-bit numbers.
   - iii) Write a program to add 8-bit numbers using direct and indirect addressing mode.
   - iv) Write a program to add 16-bit numbers using direct and indirect addressing mode.
   - v) Write a program to 8-bit numbers using carry. (using JNC instruction).
   - vi) Write a program to find 1's complement and 2's complement of 8-bit number.
3. Write a program for the sum of series of numbers.
4. Write a program for data transfer from memory block B1 to memory block B2.
5. Write a program for multiply two 8-bit numbers.
6. Write a program to add ten 8-bit numbers. Assume the numbers are stored in 8500-8509. Store the result in 850A and 850B memory address.
7. Write a program to find the negative numbers in a block of data.
8. Write a program to count the number of one's in a number.
9. Write a program to arrange numbers in Ascending order.
10. Calculate the sum of series of even numbers.
11. Write an assembly language program to verify how many bytes are present in a given set, which resembles 10101101 in 8085.
12. Write an assembly language program to find the numbers of even parity in ten consecutive memory locations in 8085.
13. Write an assembly language program to convert a BCD number into its equivalent binary in 8085.
14. Write an assembly language program to convert a binary number into its equivalent BCD in 8085.
15. Write a program to find the largest number in an array of 10 elements.