Lab Assignment- 5

Practice Lab

Week 7: 21st- 27th Sept, 2022

Lab 5 (8085 Simulator)

1. **[CO2]** Write an 8085 program to read the numbers saved in 8-bit form from location 2000H to 2009H. And add the odd numbers only. The Sum can be greater than 8-bit also. Write the Sum at location 3000H and 3001H.
2. **[CO2]** Write an 8085 program to read the numbers saved in 8bit form from location 2000H to 2009H. If the number is palindrome then save that number from location 3000H onwards.
   Example: 33H- Palindrome
3. **[CO2]** Write an 8085 program to complement alternate bit of the number stored at location 2000h. Store the result at location 2002H.
4. **[CO2]** Write an ALP program to find smallest number in an array of 10 numbers using 8085 language program.
5. **[CO2]** Write an ALP program to find the square of the number from 0 to 9 using a Table of Square.
6. **[CO2]** Write a ALP for addition of negative numbers stored in the even locations and keep the odd location number as such and transfer the at the location 0F00H.
7. **[CO2]** 8-bits numbers are stored from location 1FF0h to 1FF9h. Check numbers to find out number of 1's are even or odd in each number, if number of 1's are odd make them even by setting any bit which is 0. And store resulted array of bytes 2990h onwards.
8. **[CO2]** 8-bits numbers are stored from location 1550h to 1559h. Form a new number by complementing D6 and D5 bits of each number and store 2120h onwards.
   Example: 44h->20h.
9. **[CO2]** WAP in 8085 Assembly. Two numbers X and Y are stored in memory at location 2000H and 2001H. Calculate the value of the expression (X+Y-46h). If the value is negative, calculate the value of Z1 and store at 2400H; otherwise, calculate the value of Z2 and store at 2500H in memory. The equations pertaining to Z1 and Z2 are as follows:

   Z1=(X AND Y) OR ((X-5) OR (Y-5))

   Z2=((X - 5) AND (Y-5)) OR (X-Y)