

Assignment – 2 (8085 Microprocessor)

1. Explain internal architecture of 8085 logical block diagram.
2. What do you mean by flag register? Explain different types of flag in 8085 with examples.
3. Explain pin configuration of 8085 with pin diagram.
4. What do you mean by addressing modes? Explain different types of addressing modes of 8085 with examples.
5. What do you mean by instruction set? Explain different types of instructions with size, addressing modes and description.
6. Write a program to add two 8-bit numbers and display result in output port 01H.
7. Write a program to load two 8-bit numbers from memory and find difference.
8. Write a program to find 1's complement of number.
9. Write a program to find 2's complement of number.
10. Write a program to add two 16-bit numbers.
11. Write a program to subtract two 16-bit numbers.
12. Write a program to multiply two 8-bit numbers.
13. Write a program to divide two 8-bit numbers.
14. Write a program to find whether a number is odd or even.
15. Write a program to find greatest among two 8-bit numbers.
16. Write a program to display numbers from 1 to 20.
17. Write a program to add numbers from 10 to 50.
18. Write a program to display all even numbers from 1 to 30.
19. Write a program to add all odd numbers from 10 to 30.
20. Write a program to generate Fibonacci series upto 10th term.
21. Write a program to shift an eight-bit data four bits left. Assume data is in memory location 2051H. Store result in memory location 2055H.
22. Write a program to shift an eight-bit data three bits right. Assume data is in memory location 2051H. Store result in memory location 2055H.
23. Write a program to count no. of 1's in a byte located in memory location 2055H.
24. Write a program to swap two 8-bit numbers located in 2055H and 2056H.
25. Write a program to add 20 bytes of data stored in memory with starting address 5050H.
26. Write a program to find the largest element in a block of data. The length of the block is in the memory location 2200H and block itself starts from memory location 2201H. Store the maximum number in memory location 2300H.
27. Write a program to find the smallest element in a block of data. The length of the block is in the memory location 2200H and block itself starts from memory location 2201H. Store the maximum number in memory location 2300H.
28. Write a program to count the positive or negative numbers among 20 bytes of data.
29. Write a program to count even or odd numbers among 10 bytes of data.
30. Write a program to generate multiplication table of any 8-bit number.
31. Write a program to generate multiplication table of from 1 to 10.
32. Write a program to sort 20 bytes in ascending order.
33. Write a program to sort 20 bytes in descending order.
34. Write a program to add two 8-bit numbers using subroutine CALL.