Chapter 9

Microcontrollers in Embedded system

1. What is the different between microprocessor and microcontroller?

2. What are the factors to be considered in selecting a controller? Explain different addressing modes of 8051 microcontrollers.

3.What are the different types of instruction sets used in 8051? Explain in brief with examples.

4. Why 8051 microcontroller is used? Write an assembly program to get data from P0 and send it to P1 and compare with corresponding C program.

5. List all the special function registers of 8051 and explain functions of each.

6.Write an assembly program for generating a square wave of 66.67% duty cycle on pin 3.1. Compare it with C program.

7. Write an assembly program for controlling the LED connected at port 2 with the switch connected at port 3.

8. Write an assembly code for up counter 0 to 9 controlled by a PUSH button at P1.1 considering a situation that count is increased when a switch is pressed.

9. Explain the modes of Seven Segment display. Write an assembly code for seven segment to count from 99 to 00.

10. Explain Port 0, port 1, port 2 and port 3 of 8051.

11. Write an assembly code for transferring data of port 2 to port 1.