**Embedded System LAB**

1. W.A.P to load value 55h and 22h to register R1 and R2 and then move the content of register R1 and R2 to reg. R3 and R4 respectively
2. W.A.P to load value 02h, 04h, 06h and 08h to memory location 21h, 22h, 23h, 24h respectively.
3. W.A.P to load value 01h, 03h, 05h, 07h to memory location 10h, 11h, 12h, 13h. And then move the content of memory location to Reg. R4, R5, R6 and R7 respectively.
4. W.A.P to load value 11h,22h,33h and 44h to Reg. R0,R1,R2 and R3 respectively and then move the content of these Reg. to memory location 30h,31h,32h,33h.
5. W.A.P to load value 02h,04h,06h,08h to location 11h,12h,13h,14h and load these data to Reg. R1,R2,R3,R4 with the help of Reg. indirect mode.
6. W.A.P to exchange the content of R1 and R2.
7. W.A.P to load data 01h, 02h, 03h, 04h to location 11h, 12h, 13h, 14h respectively with the help of indirect addressing mode.
8. WAP to ADD the data in R0 with accumulator & store the result in R1.
9. WAP to subtract the data in R0 with accumulator & store the result in R1.
10. WAP to ADD the data in R0 & R1 and the result in R2, now clear the accumulator, reload the accumulator with a value of R1 and subtract R0 with accumulator & store the result in R3.
11. W.A.P to load data 33h,A5h,22h to register Bank 2 and data 05h to register Bank 0
12. WAP to ADD #35h with accumulator five times without using a loop.
13. Write a program for multiplication of 02h and 05h using DJNZ instruction.
14. Write a program to copy a block of 10 bytes of data from 35H to 60H.
15. Write a program to clear 16 RAM location starting at RAM address 60h.
16. WRITE a program to copy the value 55H into RAM memory locations 40H to 44h using (a.) without a loop (b.) with a loop.
17. WAP to load the accumulator with A & complement the accumulator & 100 times.
18. WAP to load the accumulator with A & complement the accumulator & 700 times.
19. WAP to subtract two number and if result is negative then store 01H in R7 else store 00h in R7.
20. WAP to subtract two number and if result is negative then second compliment the result.
21. WAP to ADD the value in R0 until it finds a zero & store the results.
22. WAP to ADD the value in R0 until it finds a zero & store the results.
23. W.A.P to add series of data stored at ROM location 80h, data are 04h, 02h, 01h, 04h and 02h.
24. W.A.P to store value 25h,12h and AAh into stack using PUSH Instruction and get data back into R7,R6 and R5 using POP Instruction.
25. W.A.P to initialize SP to 30h and store value 25h,35h,45h into stack and store data back into R1,R2 and R3.
26. W.A.P for LED blinking with the subroutine program delay of 255 micro second. Assuming that LED is connected at port 1.1.
27. W.A.P for LED blinking with the subroutine program delay of 255 micro second. Assuming that LEDs are connected at port 1.
28. W.A.P to connect an LED at P1.0 & a switch at P1.1 make an LED glow after pressing the switch.
29. W.A.P to connect an LED at P1.1, P1.3 & a switch at P1.1 and P1.2 and make an LED glow after pressing the respective switch.