15CSE285-Embedded System Lab

Date:10-12-2018

Instructions:

After completing coding, every group prepares your lab program in the following format and submits in your AUMS (15cse285)

I. **Questions**
II. **Coding with necessary commands to be given for every instruction**
III. **Screen shot of the output**

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1. Write a 8051 Assembly Language Program (ALP) to exchange data between register bank 0 to register bank 1 (use R0 to R7 register)
    a. Without stack operation
    b. With stack operation
2. Write a 8051 Assembly Language Program (ALP) to read 8 data from register bank 0 and perform the following operations: (R0-R3 will added to R4-R7)
    a. Addition (store the results in register bank 1) without stack
    b. Addition (store the results in register bank 1) with stack

3. Write a 8051 Assembly Language Program (ALP) to perform addition of two number and do the following task:
    a. Select Input, should not produce any carry and show status in PSW
    b. Select Input, should produce carry and show status in PSW
    c. Select Input, should produce auxiliary carry and show status in PSW
    d. Select Input , should not produce auxiliary carry and show status in PSW
4. Write a 8051 Assembly Language Program (ALP) to find the square of a given number (store input data in R0 and output in R7)
5. Write a 8051 Assembly Language Program (ALP) to find the cube of a given number (store input data in R0 and output in R7)
6. Write a 8051 Assembly Language Program (ALP) to find a number of bits in a given number is even numbers of one's or not? (clue: PSW)
   Note: Manual check is enough. If you check through Program it's good (try….)
7. Write a 8051 Assembly Language Program (ALP) to add two number and store the value in 60H memory location (**clue: stack pointer**)
8. Write a 8051 Assembly Language Program (ALP) to display your name in registers (**clue: #' a'**)