

COE 205, Term 092

Computer Organization & Assembly Programming

Programming Assignment# 3 Due date: Monday, May 17, 2010

- Q.1.** It is required to write an assembly program that does the following:
- (i) Ask the user to enter the base of an input number. Your program should give an error if a base of 0 or 1 are entered by the user and ask the user to reenter the base.
 - (ii) Read the entered number in the specified base. Your program should report an error message if an invalid digit is entered.
 - (iii) Ask the user to enter the base he wants the number to be converted to.
 - (iv) Print the number in the required base. Only the significant digits have to be printed.

Assume that the number is unsigned. Sample executions of the program are given below:

Enter the base of the input number: 10
Enter the number: 20
Enter the base of the output number: 2
The entered number in base 2 is: 10100

Enter the base of the input number: 16
Enter the number: 5A
Enter the base of the output number: 2
The entered number in base 2 is: 1011010

Enter the base of the input number: 2
Enter the number: 11011
Enter the base of the output number: 10
The entered number in base 10 is: 27

This assignment is to be done individually. The solution should be well organized and your program should be well documented. Submit a soft copy of your solution in a zip file. Your solution should be submitted in a word file that contains the following items:

- i) *Your names and IDs*
- ii) *Assignment number*
- iii) *Problem statement*
- iv) *Your solution along with the code*
- v) *Discussion of what worked and what did not work in your program. Include snapshots that demonstrate the working parts of your program. If things did not work and you attempted to solve them, mention that and write about the difficulty that you have faced.*

The soft copy should also contain both source code file (i.e. .asm) and the executable file (i.e. .exe).