CS 308

Computer Organization and Programming

Stevens Institute of Technology

Instructor: Dimitrios Damopoulos

Assembly Assignment 1

1) Write an assembly language program to add up the numbers from 1 to **15** (inclusive) and output the result to Port B (Points 15).

2) Store 10 numbers at data space 0x0100. Then retrieve the numbers using the register z and outputs **10** numbers from the memory to Port B. (Points 15)

3) Write an assembly language program to take the next two numbers in memory starting at data space 0x0100. Compare them and output the greater number (if the numbers are equal, output that number). (Points 15)

4) Write an assembly language program to add any 15 binary numbers. Get the numbers from the Data Space starts from 0x0100. Output the lower byte of the result to Port B and the high byte of the result to Port C. (use register z to get number). (Points 15)

5) Write an assembly language program to find the largest number in 15 binary numbers read from Data Space. Get the numbers from the Data Space starts from 0x0100. Output the result to Port B. (use register z to get number) (Points 20)

6) Write an assembly language program to do the following: get the number N from Data Space at 0x0100, add all numbers in [1, N], Output the lower byte of the result to Port B and the high byte of the result to Port C. (use register z to get number) (For example: if N is 5, do the adding 1+2+3+4+5) (Points 20)