Name: **Id#**

COE 205, Term 092

Computer Organization & Assembly Programming

Quiz# 4

Date: Monday, April 26, 2010

Q1.

(i)   Write a procedure, **SwapRows,** that receives the address of an array of integers (i.e. Dword), two row numbers to be exchanged, the number of elements in a row and swaps the content of the two rows in the array. Assume that all parameters will be passed on the stack and that the procedure will preserve the content of all registers. Note that to multiply two operands you can use the imul instruction e.g. eax=eax*4 is implemented as imul eax, 4 while eax=eax*ebx is implemented as imul eax, ebx.

(ii)   Use the procedure **SwapRows** to swap row 0 and row 3 of the following array:

        Array Dword   1, 2, 3, 4
              Dword   5, 6, 7, 8
              Dword   9, 10, 11, 12
              Dword   13, 14, 15, 16