

Name:

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COE 205, Term 042
Computer Organization & Assembly Programming
Quiz#6

Date: Sunday, May 8, 2005

Q1. Write a macro, **SAVEREG**, to save the content of any number of specified registers on the stack, and another macro, **RESTREG**, to restore the content of any number of specified registers from the stack. For example, to save the contents of registers AX and BX, the macro will be invoked by the command **SAVEREG <AX, BX>** and to restore the contents of registers AX and BX, the macro will be invoked by the command **RESTREG <BX, AX>**.

Q2. Write a macro to exchange two memory operands such that the two operands can be either **byte** or **word** operands. Use the macros defined in Q1 to make sure that the content of registers used in the macro is restored after executing the macro. Hint: the **TYPE** operator returns the number of bytes reserved for the operand in memory. The next table shows the values returned by the type operator.

Type of Memory Operand	Value Returned
BYTE	1
WORD	2
DWORD	4