

Name:

Id#

COE 205, Term 092
Computer Organization & Assembly Programming
Quiz# 6

Date: Monday, May 17, 2010

Q1. Compare macros and procedures in terms of parameter passing, types of parameters, invocation mechanism, memory space, execution time and assembly time.

Q2. Give an example where it is better to use macros than procedures.

Q3. Given the following macros and macro invocations, determine the assembly code generated by the assembler:

(i) GET_BIG FIRST, SECOND

```
GET_BIG      MACRO  WORD1, WORD2
              LOCAL EXIT
              MOV  EAX, WORD1
              CMP  EAX, WORD2
              JG   EXIT
              MOV  EAX, WORD2
              EXIT:
            ENDM
```

(ii) A LABEL DWORD

```
          BLOCK 5
BLOCK     MACRO  N
          K=1
          REPT  N
            DWORD K
            K=2*K+1
          ENDM
        ENDM
```

(iii) SAVE_REGS < EAX, EBX, ECX >

```
SAVE_REGS  MACRO  REGS
            IRP  D, <REGS>
              PUSH D
            ENDM
          ENDM
```