Name: Id#

COE 205, Term 091

Computer Organization & Assembly Programming

Quiz# 1

Date: Wednesday, Oct. 21, 2009

# **Q1.** Fill the blank in each of the following:

# Assembly language is a programming language that uses \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to represent operations, registers and memory locations.

# There is one-to-one correspondence between \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ instructions and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ instructions.

# \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ translate assembly to machine code while \_\_\_\_\_\_\_\_\_\_\_\_ translate high-level programs to machine code.

# Three advantages of programming in high level language include \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

# Two advantages of programming in assembly language include \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

# The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_combines program's object filewith other object files and link libraries, and produces a single executable program.

# The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ provides a hardware/software interface.

# With a 32 bit address bus, the physical address space is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

# Dynamic RAM is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_than static RAM but \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

# \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is used to bridge the CPU-memory performance gap.

# Seek time is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ while rotation latency is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

# The decimal number 1000 is represented in binary as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and in hexadecimal as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

# Using 16 bits, the range of represented unsigned numbers is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ while the range of 2’s complement signed numbers is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

# Using 8-bit 2’s complement, the number F0 represents the decimal value \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

# Assuming 16-bit 2’s complement representation, the operation FFF2 – 7FFF produces the result \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and will set the over flow flag to \_\_\_\_\_ and the carry flag to \_\_\_\_\_\_\_.

# Assuming that an 8-bit register contains the hexadecimal value C5 representing a character, the character stored is \_\_\_\_\_\_\_\_ and the parity used is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Note that the ASCII code of character ‘a’ is 61h.