Name: Id#

COE 205, Term 082

Computer Organization & Assembly Programming

Quiz# 3

Date: Monday, April 6, 2009

# **Q1.** Determine three main differences between RISC and CISC processors and given an example processor of each type.

# **Q2.** List the main general purpose and segment registers in the IA-32 processors.

# **Q3.** Briefly explain the fetch-execute cycle.

# **Q4.** Given a processor with an 11-stage pipeline and clock frequency of 4 GHZ. Determine the time that will be required to execute a program of 1 billion instructions assuming that there will be no pipeline stalls.

# **Q5.** Assume that a program has 4 Kbyte code and 5 Kbyte data. In Real Mode, assume that the first available free segment assigned for the code is segment#1005. Determine the segment that will be allocated to the data.

# **Q6.** Explain logical to linear address translation in both real mode and protected mode.