

Name:

Id#

COE 205, Term 043
Computer Organization & Assembly Programming
Quiz# 1

Date: Saturday, July 9, 2005

Q1. Explain the function of each of the following:

- i. Instruction Pointer (IP).

- ii. Instruction Register (IR).

- iii. Assembler.

- iv. Memory Address Register (MAR).

Q2. Describe what is meant by the Instruction Set Architecture (ISA) of a computer.

Q3. Which of the following 8086 registers is part of the ISA: **Instruction Pointer (IP), Instruction Register (IR), Memory Data Register (MDR), CX, SI, Y.**

Q4. Determine the machine type and the size of the address bus and the data bus for the **8086** and the **Pentium IV** processors.

Q5. Determine whether the following operations are performed in the fetch or execute phase: **Reading an instruction from Memory, Reading and Writing Operands from/to Memory, Incrementing the Program Counter, Performing Arithmetic Operations e.g. subtraction.**

Q6. Order the following storage devices once in terms of **speed** and once in terms of **capacity**: RAM, Registers, Hard Disk, and Cache.