

Name:

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COE 205, Term 001
Computer Organization & Assembly Programming
Quiz# 1

Date: Saturday, September 23

Q1. Consider the following two numbers **A=-1444** and **B=604**, and assume that they will be represented using **12 bits**:

a. Express the two numbers in both **sign-magnitude** and **2`s complement** notations.

b. Perform the operation **A-B** twice, once for **sign-magnitude** notation and once for **2`s complement** notation. Indicate in your answer when an overflow occurs.

Q2. Indicate whether the following is true or false, and if it is false **correct it**:

(1) (**True, False**) The instruction register is a register in the CPU that contains the address of the next instruction to be executed by the CPU.

(2) (**True, False**) The instruction and its operands are read from memory in the fetch phase of the fetch-execute cycle.

