COE 301/ICS 233, Term 171

Computer Architecture & Assembly Language

Quiz# 3

Date: Tuesday, Nov. 7, 2017

Q1. [4 Points] Given that **Multiplicand=1001** and **Multiplier=1011** are signed 2's complement numbers, show the **signed** multiplication of **Multiplicand** by **Multiplier**. The result of the multiplication should be an 8-bit **signed** number in HI and LO registers. Show the steps of your work.

Iteration		Multiplicand	Sign	Product = HI,LO
0	Initialize			
1				
2				
3				
4				

Q2. [6 Points] Given that **Dividend=0111** and **Divisor=1101** are signed 2's complement numbers, show the **signed** division of **Dividend** by **Divisor**. The result of division should be stored in the Remainder and Quotient registers. Show the steps of your work, and show the final result.

Iteration		Remainder (HI)	Quotient (LO)	Divisor	Difference
0	Initialize				
1					
2					
3					
4					

Quotient =   **Remainder =**