Score: _____   Name: _____

ECE 3055 Quiz II, Wednesday, June 5

The instruction, **sub $5,$6,$8** is executed on the MIPS single clock cycle datapath. Assume the registers are all loaded with the register number prior to execution and all data memory words are loaded with the memory address of the first byte of the word. Fill in the values of the following control signals and buses.

MIPS Datapath bus values in hexadecimal

Instruction Bus = _00C82822_

Register file Read Data Bus 1 = _00000006_

Register file Read Data Bus 2 = _00000008_

Write Register Bus = _05_

Write Data Bus = _FFFFFFFE_

1 pt. per blank

MIPS Control Signals in Binary

RegWrite = _1_

RegDst = _1_

PCSrc = _0_

ALU Op (two-bits) = _10_

ALU control (three bits) = _110_