

CS 3843 Computer Organization Fall 2013

Solution to Quiz 3

Name (Last, First) _____, _____

(10 points) Assume the following values are stored at the indicated memory addresses and registers

Address	Values	Register	Values

0x100	0xFF	%eax	0x104
0x104	0xAB	%ecx	0x1F
0x108	0x13	%edx	0x4
0x10C	0x1E		

(a) Fill the following table (5 points)

Operand	Result	Operand	Result
-4(%eax)	0xFF	0x10C	0x1E
(%eax, %edx)	0x13	\$0x100	0x100
(%eax, %edx, 2)	0x1E	0xC(%edx, %ecx, 8)	0x13
8(, %eax)	0x1E	%eax	0x104
leal -4(%eax), %edx	0x100	leal -4(%eax, %ecx, 2), %edx	0x13E

(b) Fill the following table (5 points)

Instruction	Destination	Value
subl %ecx, (%eax)	__0x104__	__0x8C__
addl %edx, 4(%eax)	__0x108__	__0x17__
imul \$8, (%eax, %edx, 1)	__0x108__	__0x98__
incl 8(%eax)	__0x10C__	__0x1F__
decl %ecx	__%ecx__	0x1E__