

Signature _____

Name _____

Student ID _____

cs30x _____

Score: _____

Quiz 1
CSE 30
Winter 2008

#1. Show the representation of -345_{10} in the following representation schemes (assume 16-bit words):

a) sign magnitude

b) one's-complement

c) two's complement

#2. Convert 318_{10} into (assume 16-bit words):

a) binary

b) octal

c) hexadecimal

#3. Fill in the Condition Code bits for the following addition instructions (8-bit two's-complement numbers):

00110110
+ 11001010

00101011
+ 01010101

N **Z** **V** **C**

| | | | |

N **Z** **V** **C**

| | | | |

(over)

#4. Powers of 2

$$32K = 2^{\text{---}}$$

$$2^{38} = \text{---} \quad (\text{in terms of K, M, G, etc.})$$

#5. List the order of the stages of the compilation process discussed in class:

A - as (Assembler)

B - cpp (C Preprocessor)

C - exe/a.out (Executable image)

D - ccomp (C Compiler)

E - ld (Linkage Editor)

% cc/gcc file.c --> _____ --> _____ --> _____ --> _____ --> _____