

Signature _____

Name _____

Student ID _____

cs30x _____

Score: _____

Quiz 1
CSE 30
Winter 2009

#1. Show the representation of -398_{10} in the following representation schemes (assume 16-bit words):

a) sign magnitude

b) one's-complement

c) two's complement

#2. Convert 477_{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):

11110110
+ 11001001

00101011
+ 01110101

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

| | | | |

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

| | | | |

(over)

#4. Powers of 2

$$256K = 2^{\text{---}}$$

$$2^{36} = \text{_____} \quad (\text{in terms of K, M, G, etc.})$$

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

A - exe/a.out (Executable image)

B - ccomp (C Compiler)

C - ld (Linkage Editor)

D - as (Assembler)

E - cpp (C Preprocessor)

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