Name: Id#

ICS 233, Term 072

Computer Architecture & Assembly Language

Ouiz# 2

Quizii z
Date: Wednesday, March 5, 2008
Q1. Consider an 8-bit register that has the binary number 10010110. Determine the decima value of the number if it represents:
(i) An unsigned number.
(ii) A signed number in sign-magnitude representation.
(iii) A signed number in 1's complement representation.
(iv) A signed number in 2's complement representation.
Q2. Perform the following arithmetic operations assuming that numbers are represented using 8 bit 2's complement representation. Indicate in your answer when an <u>overflow</u> occurs.

(i) FF + FF

(ii)	FE –	80

Q3. Fill the blanks in the following questions:

1)	Assuming unsigned number representation, (F1) ₁₆ represents the decimal number
ii)	The decimal number 1020 is represented in binary as
iii)	The binary number 01100011 represents character, and uses ar parity bit. Note that the ASCII code of character A is 41H and tha of character a is 61H.
iv)	Assuming 4-bit 2`s complement representation, the smallest (negative) number is in binary and in decimal and the larges
	(positive) number is in binary and ir decimal.