

Name:

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COE 205, Term 033
Computer Organization & Assembly Programming

Quiz# 2

Date: Tuesday, July 6, 2004

Q1. Represent the signed number -111 in sign-magnitude, 1's complement and 2's complement representations using the minimum number of bits possible.

Q2. Find the decimal value of the following numbers:

i. $(6A.4)_{16}$

ii. $(0110.0111)_2$

Q3. Determine in both binary and decimal the range of values that can be represented in 6 bits for each of the following representations:

i. unsigned representation

- ii. sign-magnitude representation

- iii. 1's complement representation

- iv. 2's complement representation

Q4. Assuming even parity show the 8-bit ASCII representation for each of the following characters: (Note that the ASCII code of character A is 41H and that of character 0 is 30H)

C:

4:

Q5. Determine whether the following operations will produce correct results or not assuming 8-bit 2's complement representation. Justify your answer.

i. $FF + 81$

ii. $07F + 01$

iii. $FF + 7F$