Name: KEY Id#

COE 205, Term 092

Computer Organization & Assembly Programming

Quiz# 2

 Date: Saturday, March 13, 2010

#

# **Q1.** Fill the blank in each of the following:

# The unsigned binary numbers 11011011 represents the decimal value 219.

# The unsigned decimal number 1015 is represented in binary as 1111110111.

# The unsigned hexadecimal number F6 represents the decimal number 246.

# Using 12 bits, the largest number than can be represented in decimal is 212-1=4095.

# Assuming 8-bit representation, the result of addition of the numbers FA+FE is F8.

# Assuming 8-bit representation, the signed number -20 is represented in sign-magnitude as 10010100 and in 1’s complement as 11101011 and in 2’s complement as 11101100.

#  Assuming 2’s complement representation, the 12-bit number E20 represents the decimal value -480 and is represented using 16-bits as FE20.

# Assuming 2’s complement representation, the operation FE0E – 0F20 produces the result FE0E+F0E0=EEEE and overflow = 0.

#  Assuming 12-bit 2’s complement representation, the smallest number that can be represented is -211=-2048 in decimal and 100000000000 in binary.

#  Assuming that an 8-bit register contains the hexadecimal value E4 representing a character, the character stored is ‘d’ and the parity used is even. Note that the ASCII code of character ‘a’ is 61h.