Name: 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 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

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

# The unsigned hexadecimal number F6 represents the decimal number \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

# Using 12 bits, the largest number than can be represented in decimal is \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

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

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

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

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

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

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