

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:

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

2. The unsigned decimal number 1015 is represented in binary as 111110111.

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

4. Using 12 bits, the largest number than can be represented in decimal is $2^{12}-1=4095$.

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

6. 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.

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

8. Assuming 2's complement representation, the operation FE0E – 0F20 produces the result FE0E+FOE0=EEEE and overflow = 0.

9. Assuming 12-bit 2's complement representation, the smallest number that can be represented is $-2^{11}=-2048$ in decimal and 100000000000 in binary.

10. 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.