Name: KEY Id#

COE 202, Term 132

Digital Logic Design

Quiz# 4

 Date: Tuesday, April 15

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**Q1.**  Determine the decimal value of the 7-bit binary number (1011010) when interpreted as:



ii. Represent the decimal value (- 21) in binary using a total of 7 bits in the following notations:



iii. Perform the following signed-2’s complement arithmetic operations in binary using 5 bits. All numbers given are represented in the signed-2’s complement notation. Indicate clearly the carry values from the last two stages. For each of the three operations, check and indicate whether overflow occurred or not.



******(B)**  Consider the 2’s complement 4-bit adder/subtractor hardware shown (**FA** = full adder).



