DIGITAL LOGIC DESIGN

1st Semester, 2023 – 2024

Quiz #1 (Fri)

Tip: You can note base N (decimal, binary, octal,...) number by putting the "N" subscript beside the number. Ex: 167 (decimal) = 167_{10} or $167_{(10)}$ $101 = 101_2$ or $101_{(2)}$

Problem 1:

Conver the following unsigned binary numbers into decimal:

(a) 1110 =

(b) 11000 =

(c) 1011101 =

Problem 2:

Determine the 1's and 2's complement of each binary number:

(a) 11011010

(b) 01110110

(c) 10000101

Problem 3:

Convert each hexadecimal number to decimal:

(a) $8D_{16}$ =

(b) $F3_{16}$ =

(c) EB_{16} =

Problem 4:

Convert each of the following decimal number to BCD:

(a) 21 =

(b) 36 =

(c) 69 =

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Quiz #1 (Wed)

Tip: You can note base N (decimal, binary, octal,...) number by putting the "N" subscript beside the number. Ex: 167 (decimal) = 167_{10} or $167_{(10)}$ $101 = 101_2$ or $101_{(2)}$

Problem 1:

Conver the following unsigned binary numbers into decimal:

(d) 1110 =

(e) 11010 =

(f) 1101101 =

Problem 2:

Determine the 1's and 2's complement of each binary number:

(d) 11010011

(e) 01010110

(f) 10100101

Problem 3:

Convert each hexadecimal number to decimal:

(d) $D8_{16}$ =

(e) $3F_{16}$ =

(f) BE_{16} =

Problem 4:

Convert each of the following decimal number to BCD:

(d) 12 =

(e) 63 =

(f) 96 =