HW2 ECE2060 Sp 2022

Lectures Covered: Lesson12

Show all the relevant steps. Don't simply write down the final answers.

Submit your answers in Word or pdf format to Carmen. Write all your answers on the provided assignment. You can add your own pages to the assignment if you run out of space.

Do not email directly to your TAs or me. Files emailed directly to the TAs or me will not be accepted. Fill out the following

Please provide the following information:

Your Last Name_____ Your First Name_____

OSU email _____

The problem numbers are from your text book (both the 6th and 7th edition will work)

1) Simplified Problem 7.35 (a-i): Realize the following function using only two-input NAND gates.

$F = B(A'C' + D) + (A + B'D')C$

The problem numbers are from your text book (both the 6th and 7th edition will work)

2) Simplified Problem 7.35 (a-ii): Repeat the previous problem by using only two-input NOR gates. Add inverters where necessary

The problem numbers are from your text book (both the 6th and 7th edition will work)

3) Simplified Problem 7.36 (b): Realize the following function using only two-input NAND gates. Add inverters where necessary

F = (B +(A’ +C’)D) (A(B’ +D’) +C)

The problem numbers are from your text book (both the 6th and 7th edition will work)

4) Simplified Problem 7.36 (c): Repeat the previous problem by using only two-input NOR gates.

The problem numbers are from your text book (both the 6th and 7th edition will work)

5) Problem 7.37: Realize the following function using NOR gates. Add inverters where necessary

$Z = A[BC' + D + E(F' + GH)]$