

EE 2720, Spr. 07

Homework #15

Due Friday March 23, 07 at  
9:30 am under my door (room

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EE 245)

Note: please staple your homework

Thanks

Alex

Problem 1: Consider the logic function  $F$  where  $F$  is  $F = A \cdot B' + C' \cdot D + E'$ . Realize  $F$  using only NAND gates. Use both the algebraic and graphical approach. You must show figures of course.

Problem 2: Consider the logic function  $F$  where  $F$  is  $F = (A + B') \cdot (C' + D) \cdot E'$ . Realize  $F$  using only NOR gates. Use both the algebraic and graphical approach. You must show figures of course.

Problem 3: Prove equations (5), (6), (7), (8) and (11) on page 8 of handout # 11; (they relate to the XOR operator). You are not allowed to use a truth table when proving eq. (11).

EE 2720, HW #5 cont. ②

Problem 4: Simplify  $F = A' \oplus B \oplus C$

Enjoy your homework  
It is very short!

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Alex