**CpE 3150**

**Homework #1**

1. pp. 20-21: Problems

2 a,b,c

3 a,b,c

7 a,b,c 8 a,b,c

25 a.b.c.d

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1. By means of a truth table show the validity of the DeMorgan’s theorem for three variables:

(A Λ B Λ C)′ = A′ + B′ + C′

1. Simplify the following expressions using Boolean algebra:
   1. A + AB
   2. AB + AB′
   3. A′BC + AC
   4. A′B + ABC′ +ABC
   5. (A + B) ′ (A′ + B′)′
   6. A + A′B + A′B′