ELEG 667-010 - Advanced Nanostructure Devices – Fall 2006
Homework #7 - due Wednesday, 22 November 2006, in class

1. Problem 5.14, in chapter 5, Lundstrom, p. 245 in 2nd edition. Hint: Start with $\nabla(Dn)$ and write D in terms of μ .

2. Problem 5.19(a) only, in chapter 5, Lundstrom, p. 245 in 2nd edition. Hint: Consider the mechanisms for the $\partial f/\partial t|_{coll}$ term.

3. Problem 6.1, in chapter 6, Lundstrom, p. 279 in 2nd edition.

4. Problem 6.8, in chapter 6, Lundstrom, p. 280 in 2nd edition. Hint: Let the available random number generator be: $P(p_x') = \exp[-p_x'^2/2]$, and give the selected p_x in terms of this p_x'.

Homework assignments will appear on the web at:
http://www.ece.udel.edu/~kolodzey/courses/eleg667f06.html
Note: On each homework and report submission, please give your name, the due date, assignment number and the course number. For full credit - include units/dimensions for all numerical quantities