ELEG 646; ELEG 446 - Nanoelectronic Device Principles – Spring 2011

Homework #4 - due Friday, 11 March 2011, in class

1. Problem 5.1 in chapter 5, Muller & Kamins, p. 274 in 3rd edition.

2. Problem 5.2 in chapter 5, Muller & Kamins, p. 274 in 3rd edition.

3. Problem 5.4 in chapter 5, Muller & Kamins, p. 275 in 3rd edition. Hint: Compare the thermal energy with the Coulomb potential energy at r, which therefore depends on temperature. Then consider how the thermal velocity depends on temperature, and remember that rate has units of concentration per time.

Homework assignments will appear on the web at: http://www.ece.udel.edu/~kolodzey/courses/eleg646s11.html

<u>Include your name, due date, assignment number, and course number on each submission.</u>