ECE 447/547 (Semiconductor Devices)
Southern Illinois University Carbondale

Homework 07

A. Textbook _Exercises_
7.1 (page #245)
7.2 (page #250)
7.3 (page #253)
7.4 (page #255)
7.5 (page #256)
7.6 (page #258)

B. Textbook _Problem_
7.44 (page #274)

C. Derive the *I-V* equation of an *ideal* silicon *p-n* diode biased in the forward direction *neglecting* carrier recombination all throughout the device. Assume that excess minority carrier density *vanishes* at the end boundaries of the device.

D. Textbook Problem: 8.15