ECE 255 ELECTRONIC ANALYSIS AND DESIGN Fall 2009

Homework 1 Due Friday, September 4

5:00 p.m. Room MSEE 180 – Drop Box

COURSE WEBSITE: http://cobweb.ecn.purdue.edu/~ee255/

1) Text problem 2.12, page 69

2) Text problem 2.27, page 70

3) Text problem 2.30, page 70

4) Text problem 3.21, page 134

5) Based on the information in figure P 3.21, page 134, develop a D.C. diode model which will be exact at 100 μA and very accurate in the neighborhood of 100 μA. Show your method of solution (including calculations) and the resulting values for V_0 and R_0.

6) Text problem 3.52, page 136

7) Text problem 3.56, page 136

8) Text problem 3.66, page 137

9) Text problem 3.69, page 137

10) Continue Text problem 3.69, page 137 – (c) Repeat using a diode model with $V_0 = 0.6$ V and $R_0 = 200\ \Omega$.