

Department of Electronics & Communication Engineering

Faculty of Engineering, Integral University, Lucknow

Assignment Sheet 1

Semiconductor Device Modeling & Circuit Simulation GEC 101

Faculty : Shrish Bajpai

Due Date : February 07, 2013

Problems : 05

1. Discuss second order effects present in Bipolar Junction Transistor.
2. Explain channel length modulation & early effect with appropriate figures.
3. What do you mean by device modeling? What are the various approaches for the device modeling?
4. Explain Ebers Moll model of the Bipolar Junction Transistor with appropriate equations & figures.
5. Explain Small Signal Model (Hybrid II Model) for the Bipolar Junction Transistor with appropriate equations & figures.