CE1: Hands-On Computer Engineering

Research Problems 3

0. (Optional) Attend a SWE meeting (or any other SOE student organization) Tuesday at 6:30pm in BE318.

1. How are your classes going? Briefly write about each one, including what you like and do not like about the class, and what is difficult and what is easy about the class. Don’t forget CE1!

2. What is an oscillator, and what does it do? Don’t forget to provide citations and write your own description.

3. What does a capacitor do and, qualitatively, how does it work? What about an inductor?

4. We looked at CMOS Inverters and NAND gates in class, and built a truth table including ‘open’ / ‘closed’ notations for each transistor. Figure out (or find) the schematic of a CMOS NOR gate and write up a truth table for it, including an “open/closed” column for each of the 4 transistors.