

**ECE 2C      Homework #4      Due: Wednesday 5/7/08 at 5:30 PM**

**Relevant readings:**

S&S 4.7, 6.3.1, 6.3.2, 6.5

7 problems

- (1) [10 pt.] S&S Problem 4.101 from the textbook. {Frequency response of common-source: lower corner frequency, mid-band gain and upper corner frequencies}
- (2) [10 pt.] S&S Problem 4.104 from the textbook. {High-frequency MOSFET amplifier with drain-to-gate feedback resistor}
- (3) [10 pt.] S&S Problem 6.24 from the textbook. {Current mirror circuit}
- (4) [10 pt.] S&S Problem 6.61 from the textbook. {Common-source amplifiers with active load}
- (5) [10 pt.] S&S Problem 6.66 from the textbook. {Miller Theorem}
- (6) [10 pt.] S&S Problem 6.67 from the textbook. {Open Circuit Time Constant}
- (7) [10 pt.] S&S Problem 6.68 from the textbook. {Exact analysis for CS small-signal amplifier}