School of Electronics and Computing Systems
20-ECEE-352

ELECTRONICS II
Spring Quarter 2010

Homework #2.
Due: Wednesday April 14, 2010

Problem 1: An amplifier has a gain transfer function

$$A(s)=10\frac{s}{(s+2\pi x10)}\frac{1}{(1+\frac{s}{2\pi x10^{6}})}$$

Sketch a Bode plot for its magnitude and find the mid-band gain, lower 3-dB f_L, and upper 3-dB frequency F_H. Also, find the approximate values for the frequencies at which the gain becomes unity.

Problem 2. If in the circuit below, A is an ideal voltage amplifier of gain 100, find A_M, $F_L(s)$, and $F_H(s)$. Also, find ω_L and ω_H.