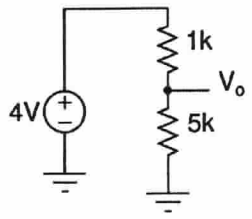
Exam Date: August 19, 2013

Name: _____

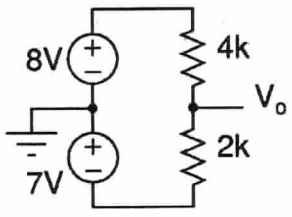
ID: _____

EE 311 Fundamentals Exam



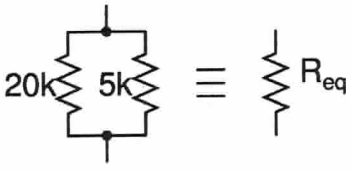
1. What is the voltage V_0?

   V_0=_____



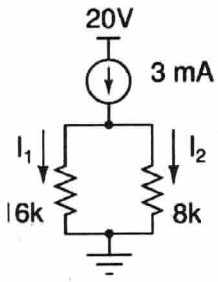
2. What is V_0?

   V_0=_____



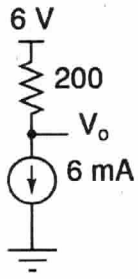
3. What is the equivalent resistance R_{eq}?

   R_{eq} = _____



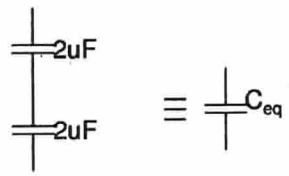
4. What are the currents I_1 and I_2?

   I_1 = ____ I_2 = ____



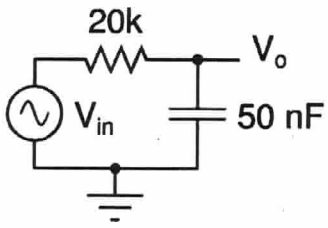
5. What is Vo?

   V_o = _____



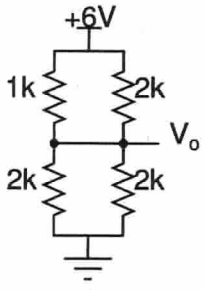
6. What is the equivalent capacitance, C_{eq}?

   C_{eq} = _____



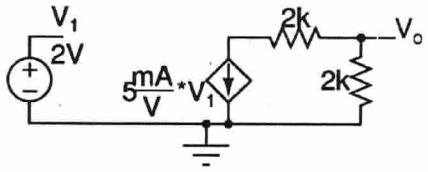
7. At what frequency, f_{3dB}, is the magnitude of V_0 equal to 0.707 V_{in}?

   f_{3dB} = _____



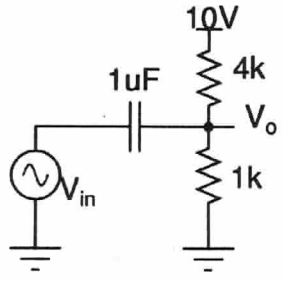
8. What is the voltage V_o?

   V_o = _____



9. What is the output voltage, V_o?

   V_o = _____



10. A) What is the voltage V_o when the frequency of V_{in} is zero?

    V_o = _____

    b) Is the circuit: (Circle one)

    a low pass filter

    a high pass filter

    a band pass filter

    none of the above?