EE10 **Midterm Exam** **Winter 2017**

Name: _____

UID: _____

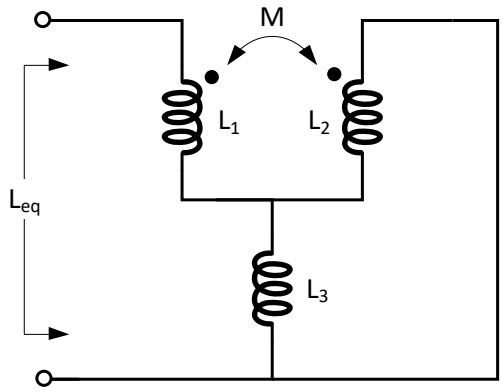
Discussion: _____

Total of 3 questions, 90 minutes.

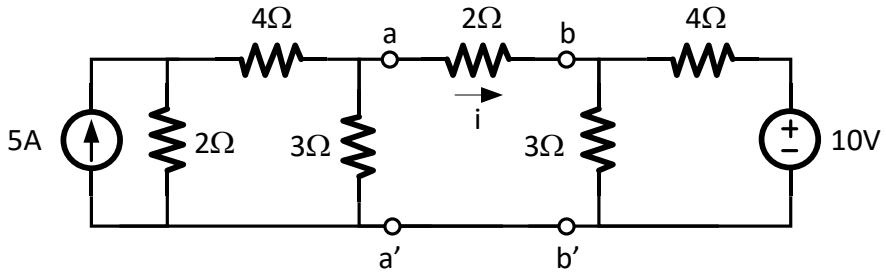
Only a calculator, a pencil, a ruler and an eraser allowed

P1	
P2	
P3	
Total	

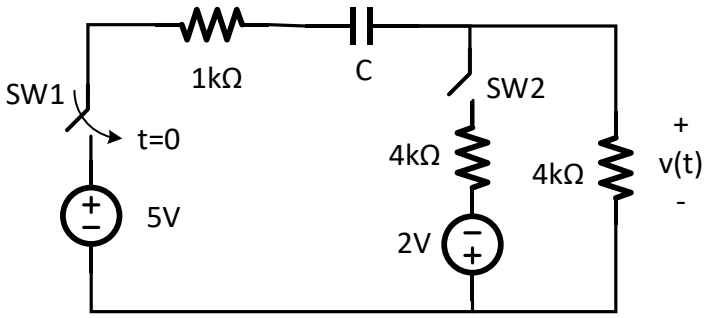
1. (30 points) Find the equivalent inductance of the circuit below.



2. (30 points) In the circuit below,
   a. Find the current i by finding the Thevenin equivalent at $a - a'$ and $b - b'$ nodes.
   b. Calculate the power dissipated in the middle 2Ω resistor.



3. (40 points) In the following circuit, switch SW1 closes at $t = 0$, and switch SW2 closes when v(t) reaches 2V. Calculate and plot v(t).



Scratch paper (NOT GRADED)

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