Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (please print)

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

ECE 2201 – Quiz #3 – 1pm Section

March 26, 2024

Do not open this quiz until you are told to begin.

1. Print your name, and sign your name, at the top of this page.
2. This quiz is closed book, closed notes. You may use one 8.5” x 11” crib sheet, or its equivalent. You may use a calculator. You should **not** use a cell phone, tablet computer, or laptop computer, as you work on this quiz.
3. Show all work on these pages, and you may use both sides of each page. Show all work necessary to complete the problem. A solution without the appropriate work shown will receive no credit. A solution which is not given in a reasonable order will lose credit. You may separate the pages as you work.
4. Show all units in solutions, intermediate results, and figures. Units in the quiz will be included between square brackets.
5. Do not use red ink. Do not use red pencil.
6. You will have 30 minutes to work on this quiz.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/20

Room for extra work

A Device can be modeled as a current source in parallel with a resistance. When that Device is connected to a current source, as shown in Figure 1, the voltage   
*vA* = 135[V]. When that same Device is connected to a voltage source, as shown in Figure 2, the current *iB* = -8.8[mA]. Note the positions of the terminals A and B of the Device in these two figures.

 

1. Find the model for the Device. Draw the model for the Device, labeled with numerical values, and labeling terminals A and B.
2. Find the power delivered by the Device to a 35[kW] resistor, when that Device is connected only to that resistor.





