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

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

ECE 2201 – Quiz #5

April 11, 2023

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

1. 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.

2. 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.

3. Show all units in solutions, intermediate results, and figures. Units in the quiz will be included between square brackets.

4. Do not use red ink. Do not use red pencil.

5. 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 this device is connected in the circuit shown in Figure 1, the voltage *vA* = -10.4[V]. When the same device is connected in the circuit shown in Figure 2, the   
voltage *vB* = -22.3[V].

1. Find the model for the device, and draw it, labeling terminals A and B, and labeling the components with their numerical values.
2. Find the current *iX* when the same device is connected in the circuit shown in Figure 3.

 



Room for extra work





