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

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

ECE 2201 – Quiz #1

June 17, 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 40 minutes to work on this quiz.

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

Room for extra work

Use the circuit shown below in Figure 1 to solve. The equations and plots for currents and voltages are shown below, with the plot in Figure 2. The current is made up of electrons.

1. Find the power delivered by Device 3 at *t* = 3[s].
2. Find the energy delivered to Device 3 during the first three [seconds] after   
   *t* = 1[s].
3. Which way are the electrons moving through Device 3 at *t* = 3[s]? Are they gaining or losing energy as they move at *t* = 3[s]? Explain your answers using complete sentences.



Room for extra work





