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

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

ECE 2202 – Quiz #1

June 18, 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.

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Room for extra work

Device A and Device B can be modeled as Norton equivalents. The current is made up of electrons.

When Device A in Figure 1 is open-circuited, the voltage at C with respect to D is 28.3[V]. When a short-circuit is placed across Device A in Figure 1, the current through the short circuit from C to D is 177[mA].

When Device B in Figure 2 is open-circuited, the voltage at F with respect to E is 39.2[V]. When a short-circuit is placed across Device B in Figure 2, the current through the short circuit from E to F is 145[mA].

Device A and Device B are inserted into the circuit shown in Figure 3. For this circuit, find the Thevenin equivalent resistance as seen by the 42[mA] current source.

 



Room for extra work





