Peoplesoft ID Number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

ECE 2202 – Midsemester Exam Problem 3

July 29, 2021

1. You may use one 8.5” x 11” crib sheet, or its equivalent. Do not communicate with anyone except Dr. Dave Shattuck while you are taking this exam.

2. Show all work necessary to complete the problem. Use additional sheets of paper as needed. A solution without the appropriate work shown will receive no credit. A solution which is not given in a reasonable order will lose credit. Include this page with your Peoplesoft ID Number, or include a different, separate page with your Peoplesoft ID Number. Do not write your name on this quiz. Failure to follow these rules will result in points being deducted.

3. Show all units in solutions, intermediate results, and figures. Units in the problem 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 exam problem, plus additional time to print, scan and email your work. Use a filename which is your Peoplesoft ID Number, followed by Problem3. Post your solution on Blackboard, in the same way you submit homework assignments. It must be submitted by 3:50pm, or points will be deducted.

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For the circuit shown, the switch SWA was closed, the switch SWB was open, and the switch SWC was open, all for a long time before switch SWA opened, and switch SWC closed, both at *t* = 0. Then, 1.1[s] later, switch SWB closed.

All resistances in the diagram have units of [Ohms].

1. Find *vQ*(0.95[s]).
2. Find *iQ*(0.95[s]).



Diagram, schematic

Description automatically generated

Diagram, schematic

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Diagram

Description automatically generated

Text, letter

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