

LAHORE UNIVERSITY OF MANAGEMENT SCIENCES
 Department of Electrical Engineering

EE240 Circuits I
 Quiz 04 - Section 1 - Solutions

Name: _____

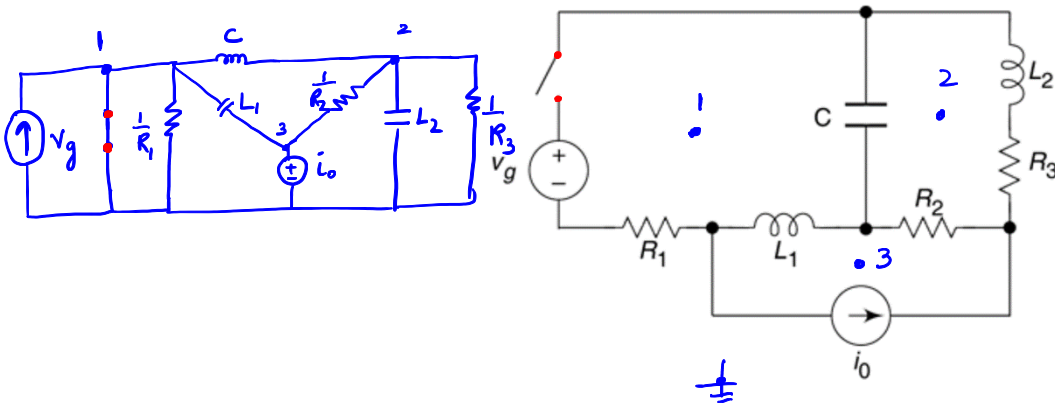
Campus ID: _____

Total Marks: 10

Time Duration: 20 minutes

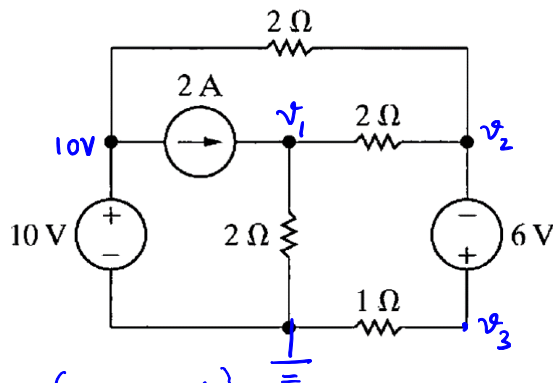
Question 1 (6 marks)

Draw the dual of the circuit shown below. Open switch appears as closed switch in the dual circuit.



Question 2 (4 marks)

Use either *nodal*, loop or source transformation to determine the current through the 1Ω resistor.



01 $\frac{v_1}{2} + \frac{v_1 - v_2}{2} = 2$

02 $\frac{v_2 - 10}{2} + \frac{v_2 - v_1}{2} + \frac{v_3}{1} = 0$ (super Node)

super Node: $3 = v_2 + 6$