

Brac University

Semester: Spring 2022

Course No: CSE250

Course Title: CIRCUITS AND ELECTRONICS

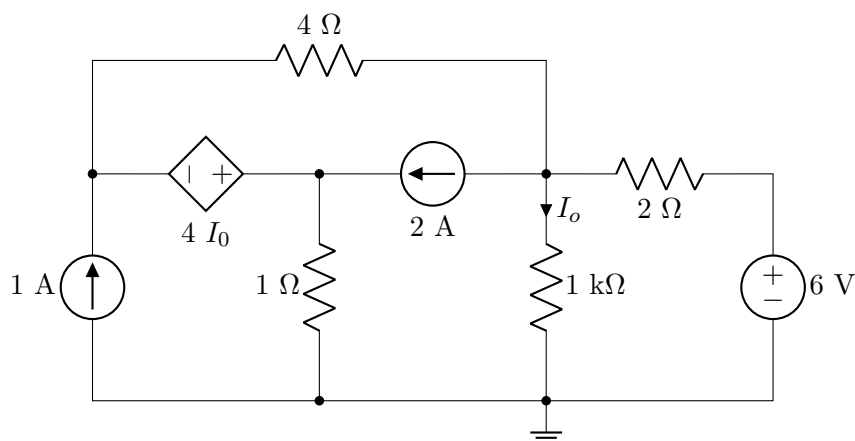
Mid term Exam

Full Marks: 50

Time: 1 hour 15 minutes

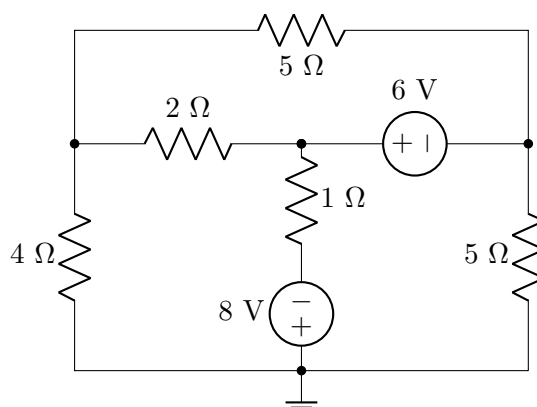
Date: 11 March, 2022

Question 1 of 3 [20 marks]



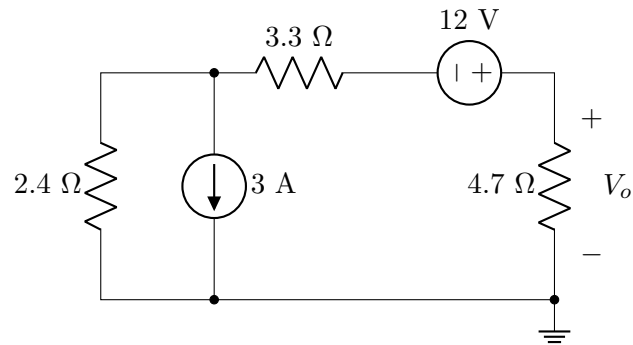
- **Apply Nodal/Mesh Analysis to identify** the values of the node voltages/mesh currents.
(18 marks) [CO2, CO4]
- **What** is the value of I_o ? (with appropriate \pm sign)?
(2 marks) [CO1, CO2]

Question 2 of 3 [20 marks]



- **Apply Nodal/Mesh Analysis to identify** the values of the node voltages/mesh currents.
(16 marks) [CO2, CO4]
- **What** is the **power** of the 8 V voltage source? (with appropriate \pm sign) [Hint: $P = IV$]
(4 marks) [CO1, CO2]

Question 3 of 3 [10 marks]



- Apply Source Transformation/Superposition and identify the value of V_o .
(10 marks) [CO2, CO4]