August 17, 2021

EAST WEST UNIVERSITY
Department of Computer Science and Engineering
B.Sc. in Computer Science and Engineering Program
Mid Term 2, Summer 2021

Course:	CSE 109/209 – Electrical Circuits, Section-4
Instructor:	SHK, Senior Lecturer, CSE Department
Full Marks:	40
Time:	1 Hour and 30 Minutes [Including attachment time]

Note: There are FIVE questions, answer ALL of them. Course outcomes (CO), and marks of each question are mentioned at the right margin.

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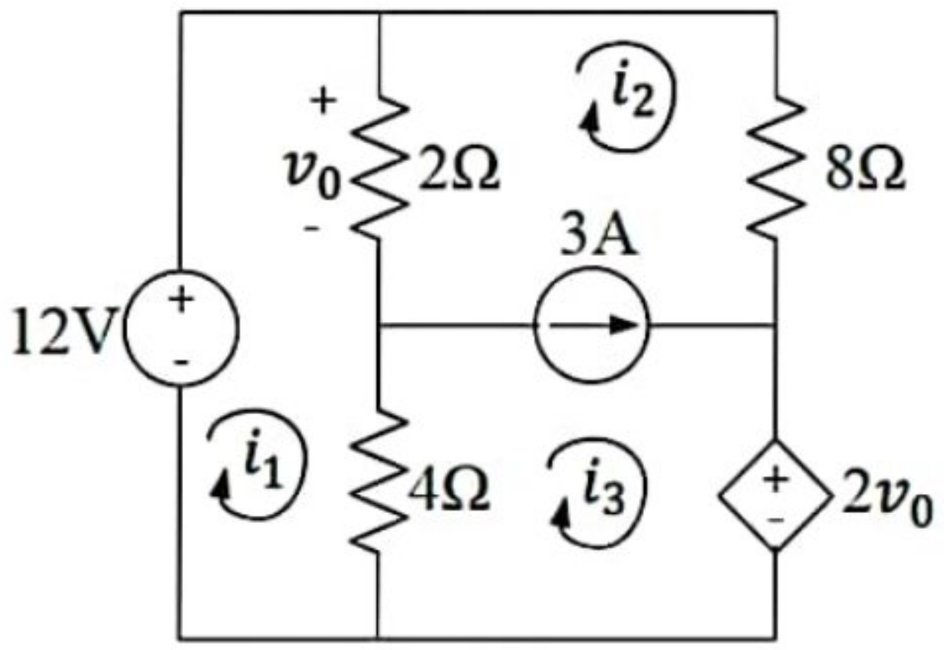
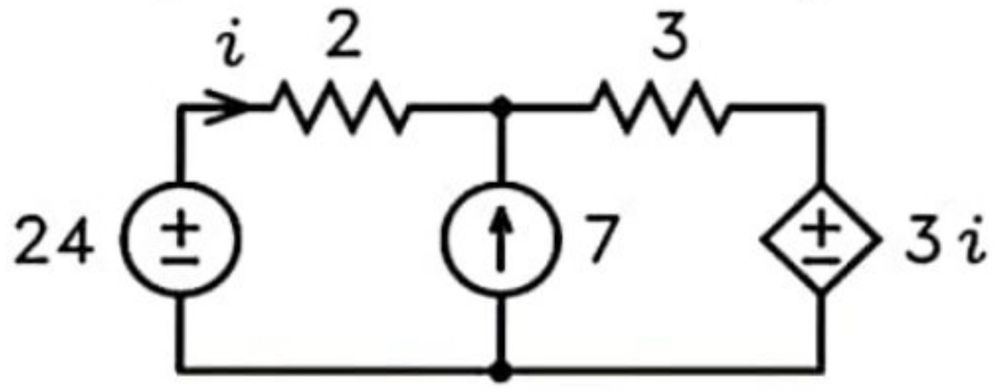
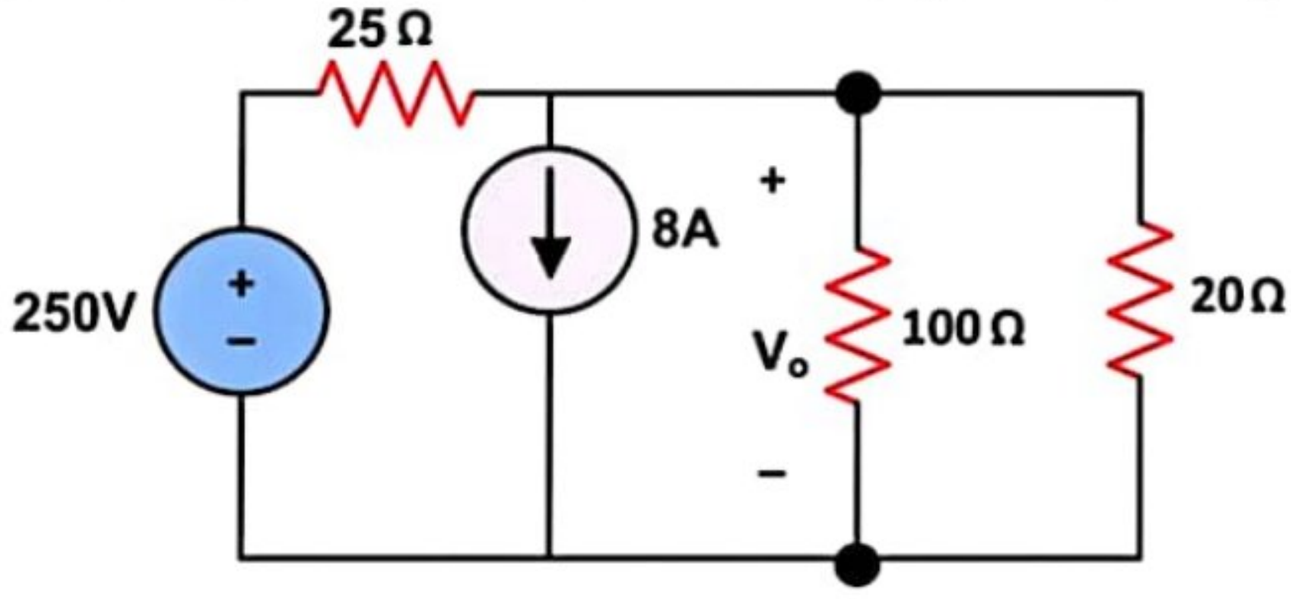
1. Using mesh currents indicated in the circuit, **determine** i_1, i_2 *and* i_3 in the following circuit. [CO2, Mark:12]



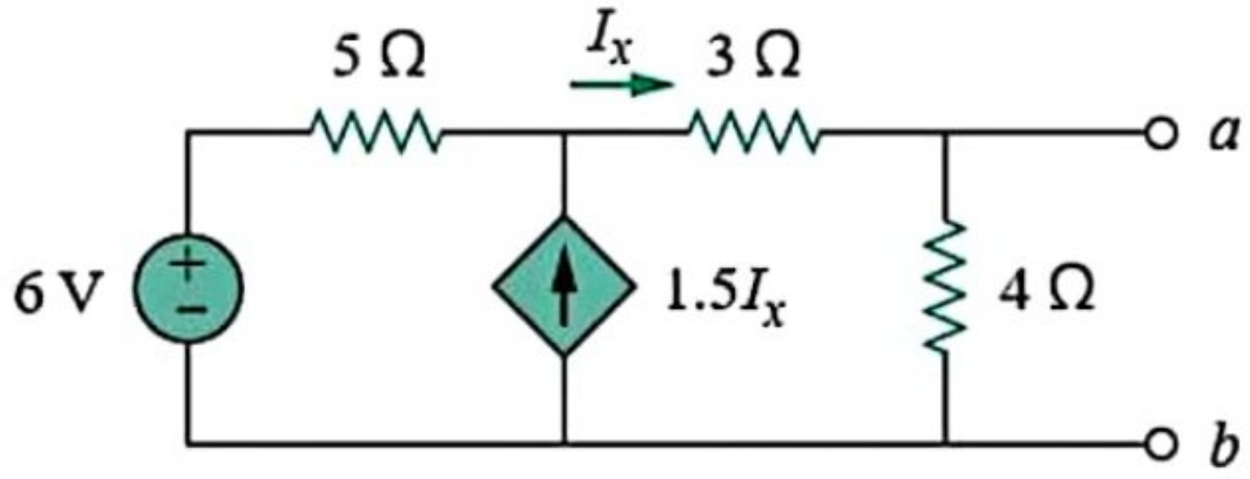
2. **Use** superposition technique to determine i in the following circuit. [CO2, Mark: 8]



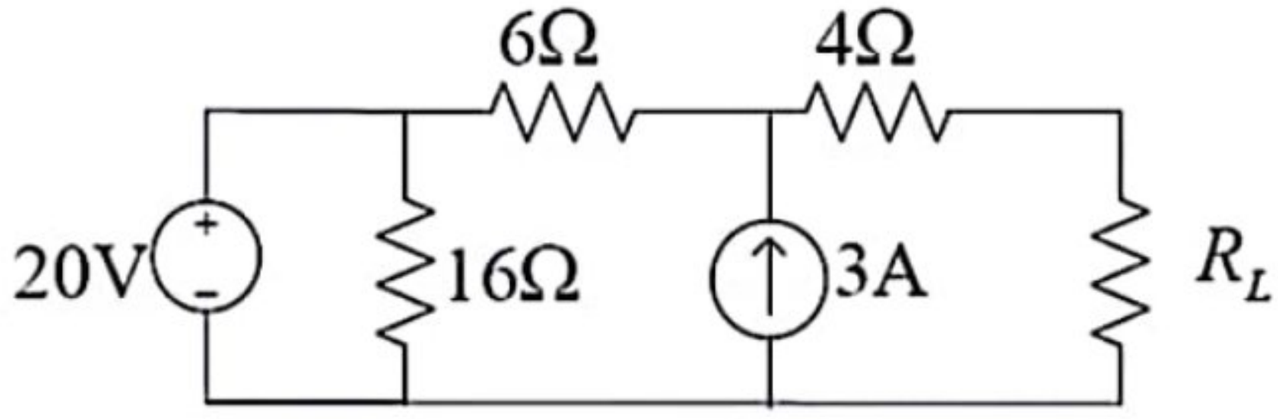
3. **Use** most effective source transformation to determine V_o in the following circuit. [CO2, Mark: 6]



4. **Determine** the Thevenin equivalent of the following circuit with respect to terminals a and b. [CO2, Mark:6]



5. **Determine** the value of R_L for maximum power transfer to the load of the following circuit. **Calculate** the maximum power. [CO2, Mark: 8]



August 11, 2021

EAST WEST UNIVERSITY
Department of Computer Science and Engineering
B.Sc. in Computer Science and Engineering Program
Mid Term 2, Summer 2021

Course:	CSE 109/209 – Electrical Circuits, Section-5
Instructor:	SHK, Senior Lecturer, CSE Department
Full Marks:	40
Time:	1 Hour and 30 Minutes [Including attachment time]

Note: There are FIVE questions, answer ALL of them. Course outcomes (CO), and marks of each question are mentioned at the right margin.

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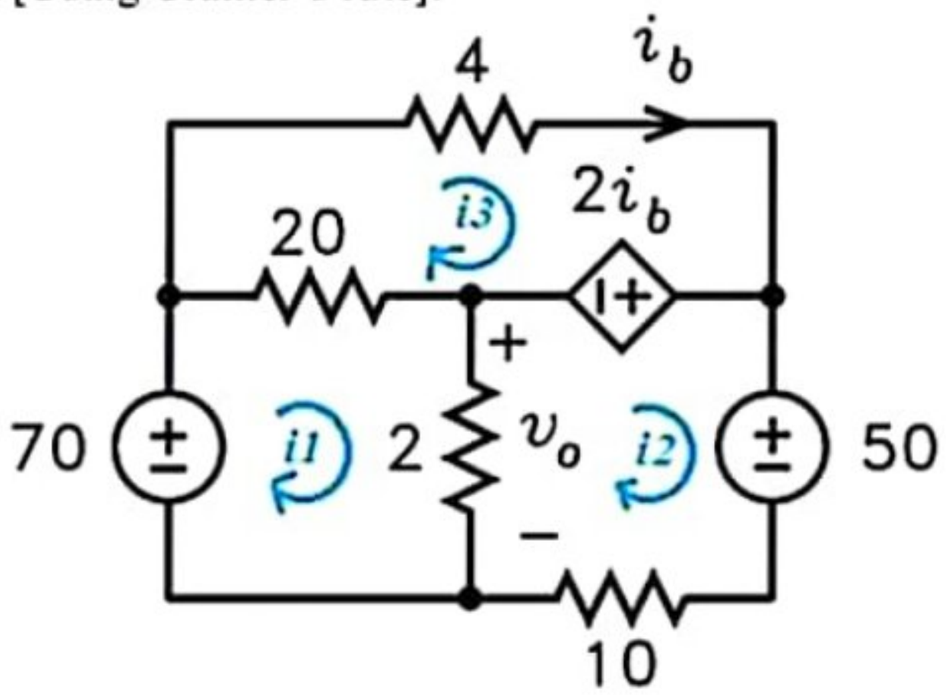
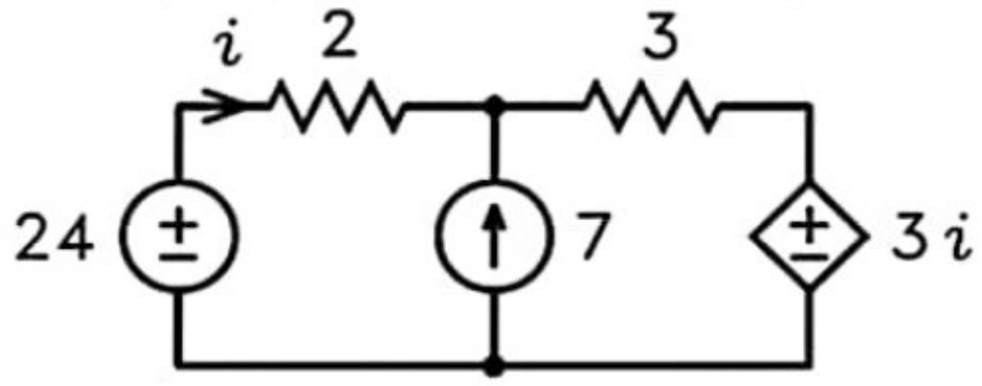
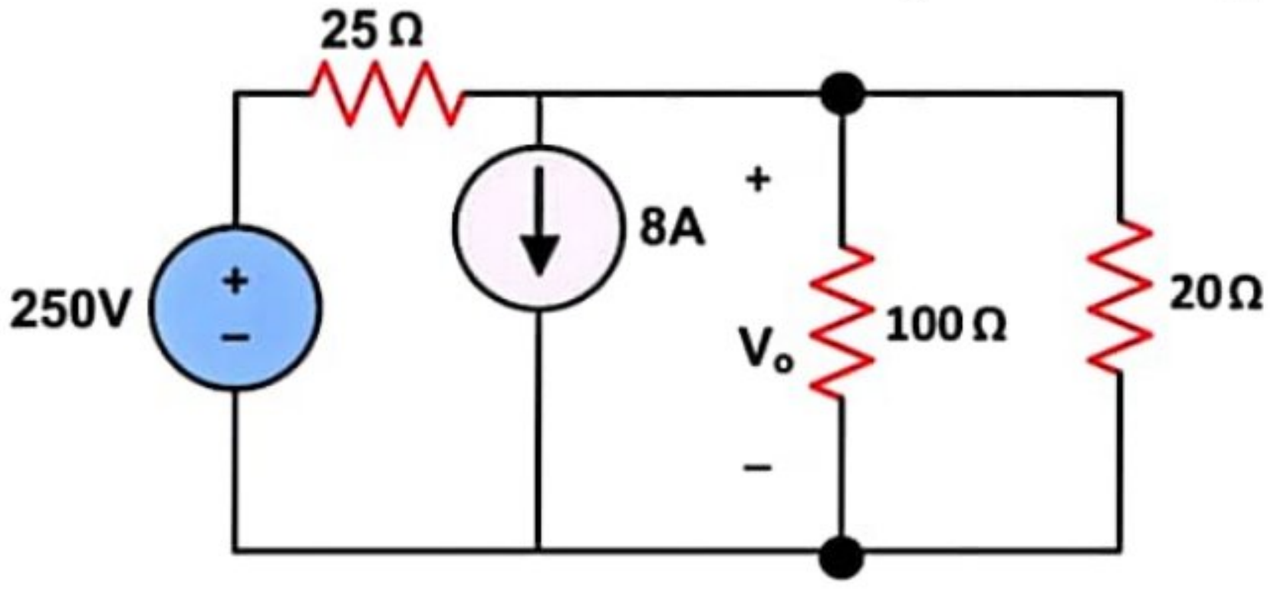
1. Using mesh currents indicated in the circuit, **determine** i_1, i_2 *and* i_3 in the following circuit [Using Cramer's rule]. [CO2, Mark:12]



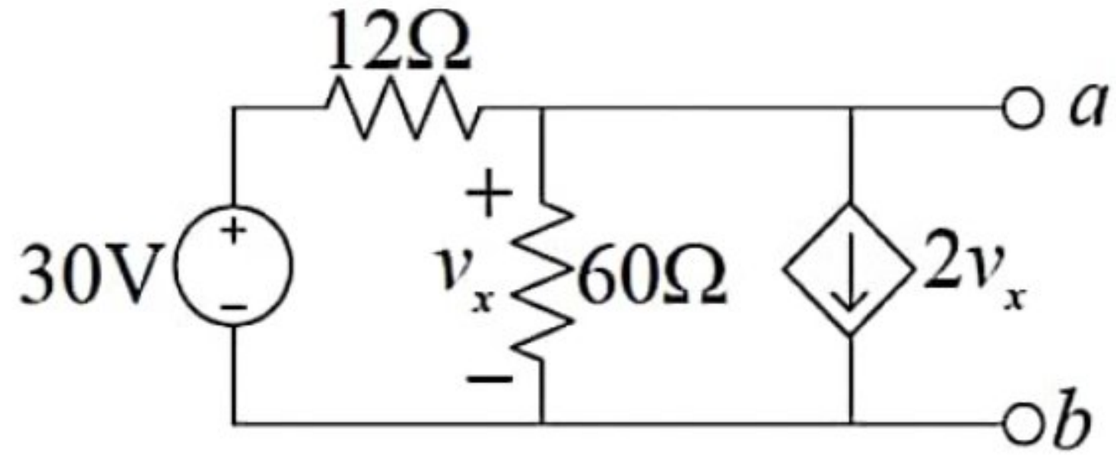
2. **Use** superposition technique to determine i in the following circuit. [CO2, Mark: 8]



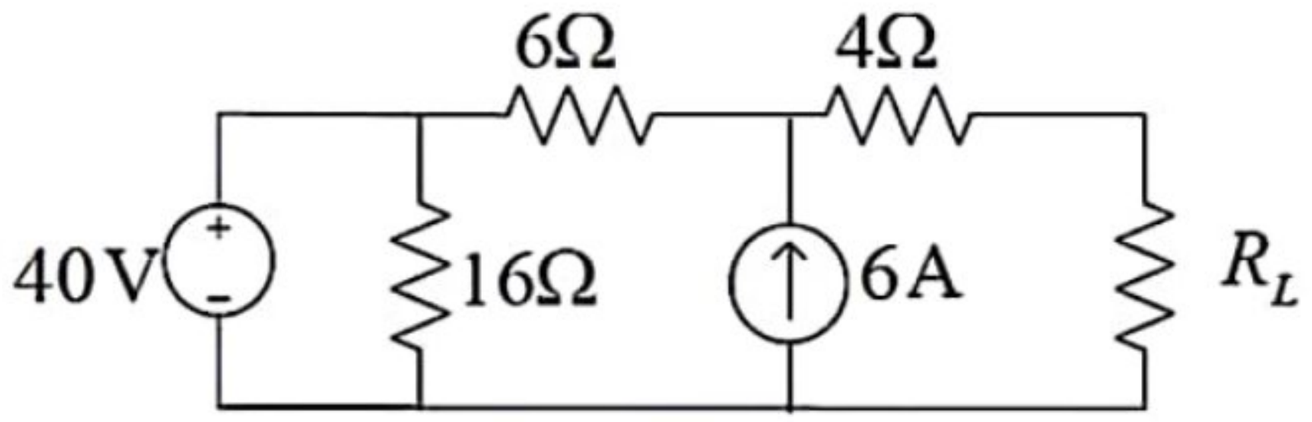
3. **Use** most effective source transformation to determine V_o in the following circuit. [CO2, Mark: 6]



4. **Determine** the Thevenin equivalent of the following circuit with respect to terminals a and b. [CO2, Mark:6]



5. **Determine** the value of R_L for maximum power transfer to the load of the following circuit. **Calculate** the maximum power. [CO2, Mark: 8]



December 15, 2021

EAST WEST UNIVERSITY
Department of Computer Science and Engineering
B.Sc. in Computer Science and Engineering Program
Mid Term 2, Fall 2021

Course: CSE 109/209 – Electrical Circuits, Section-5
Instructor: M. Saddam Hossain Khan, Senior Lecturer, CSE Department
Full Marks: 20
Time: 1 Hour and 30 Minutes [Including attachment time]

Note: There are FIVE questions, answer ALL of them. Course outcomes (CO), Cognitive level and marks of each question are mentioned at the right margin.

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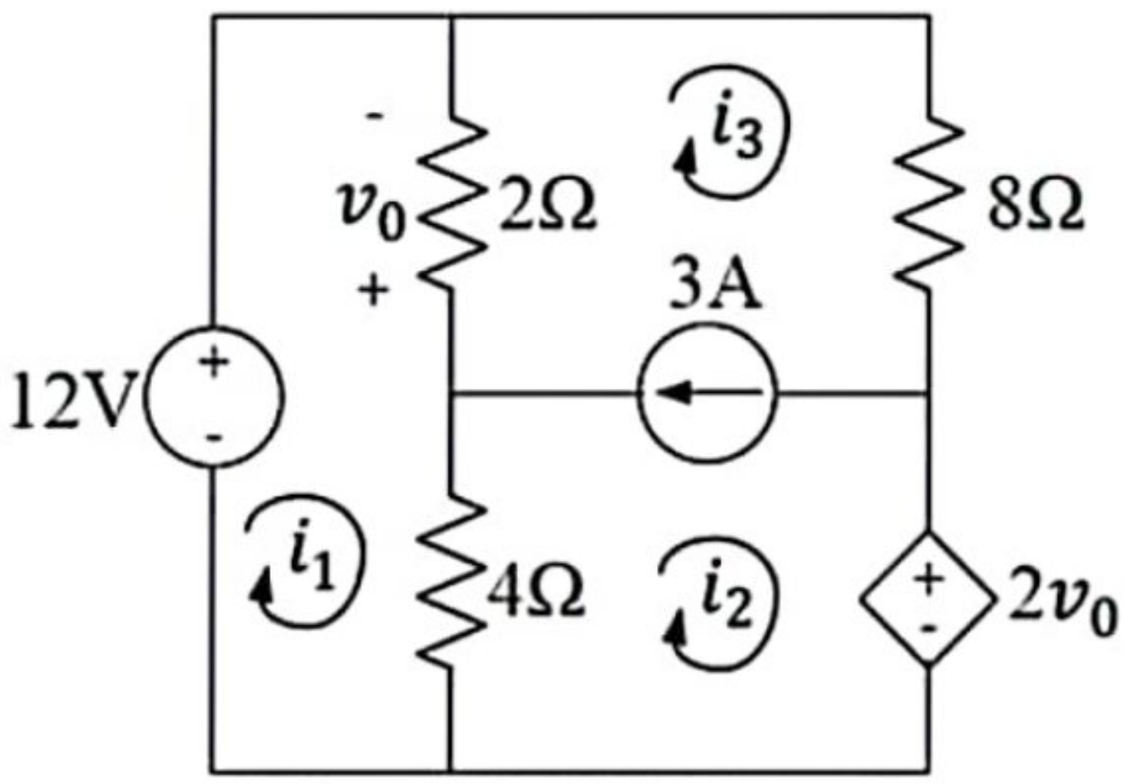
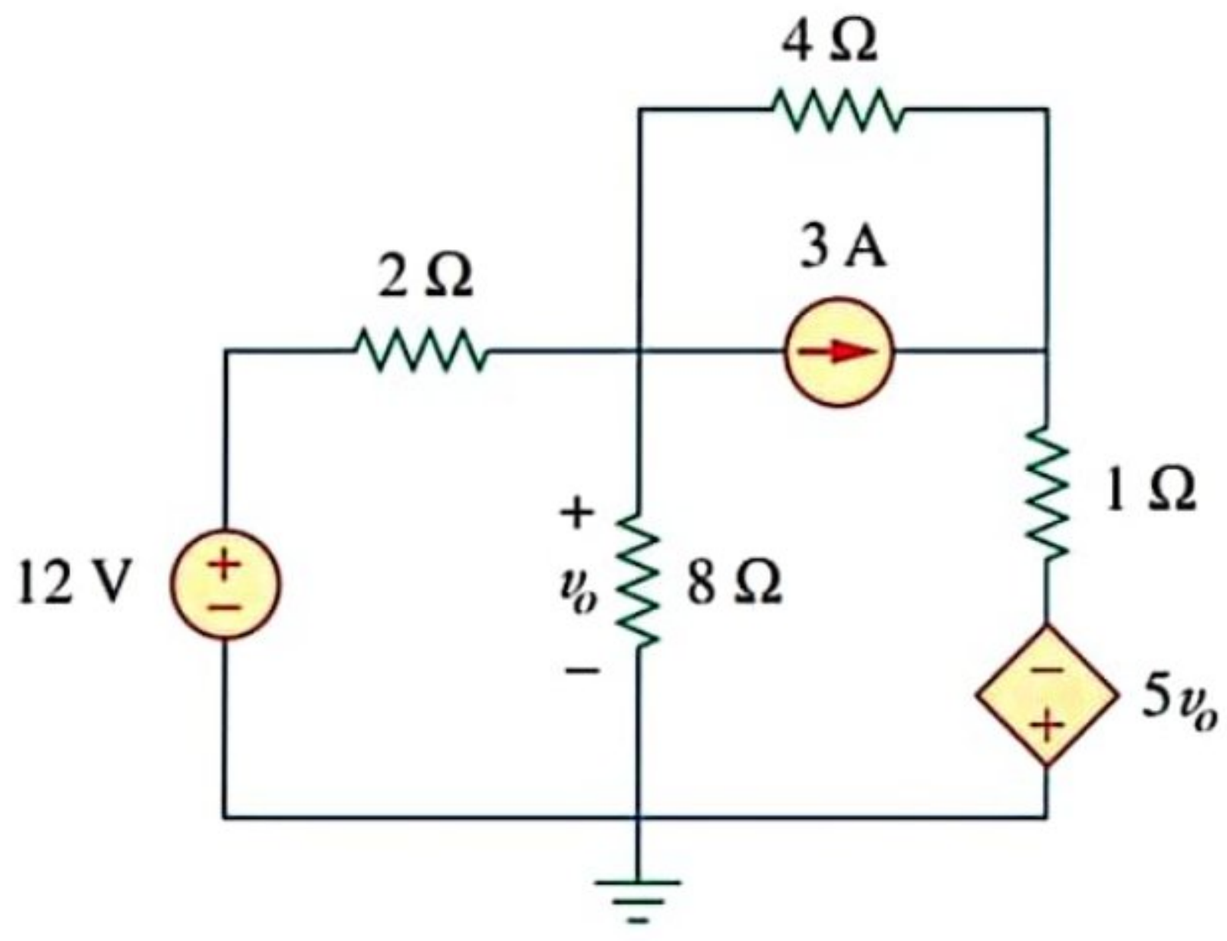
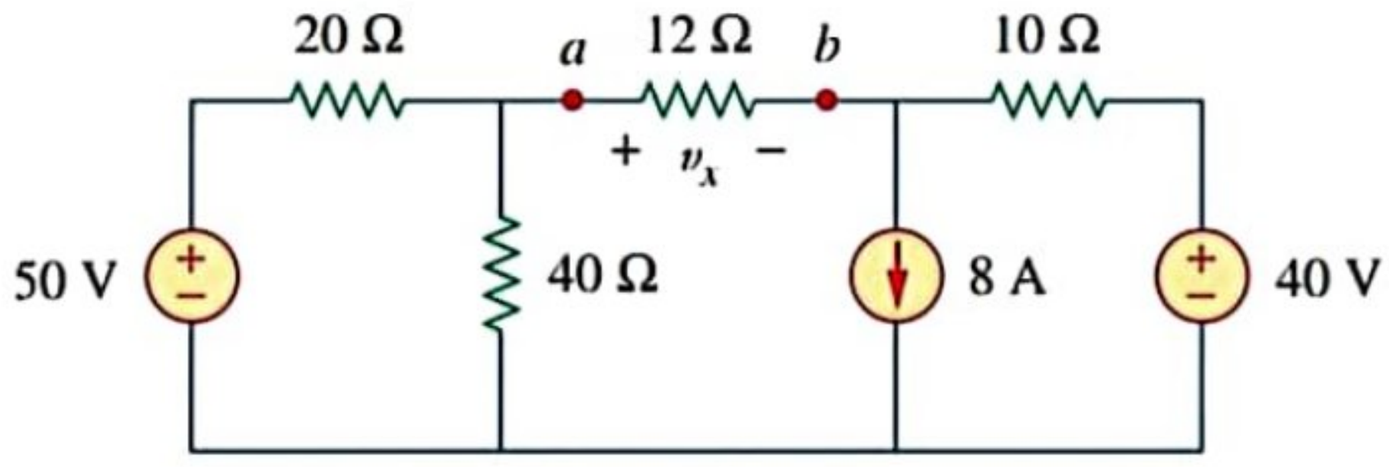
1. Using mesh currents indicated in the circuit, **determine** i_1 , i_2 *and* i_3 in the following circuit [Using Cramer's rule]. [CO2,C4, Mark: 6]



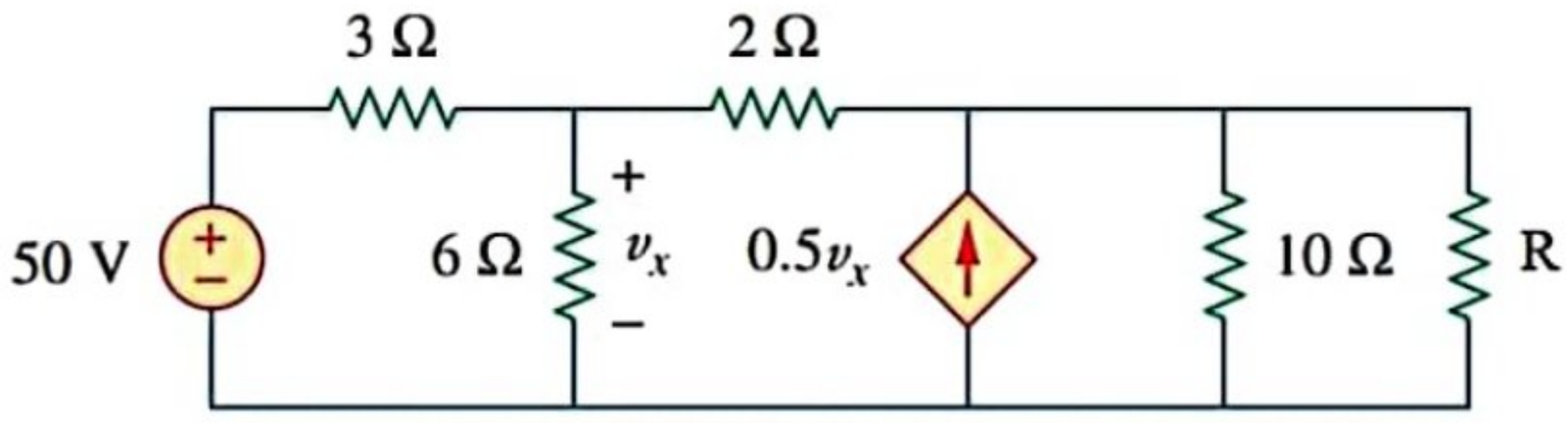
2. **Use** superposition technique to determine v_o in the following circuit. [CO2,C4, Mark: 4]



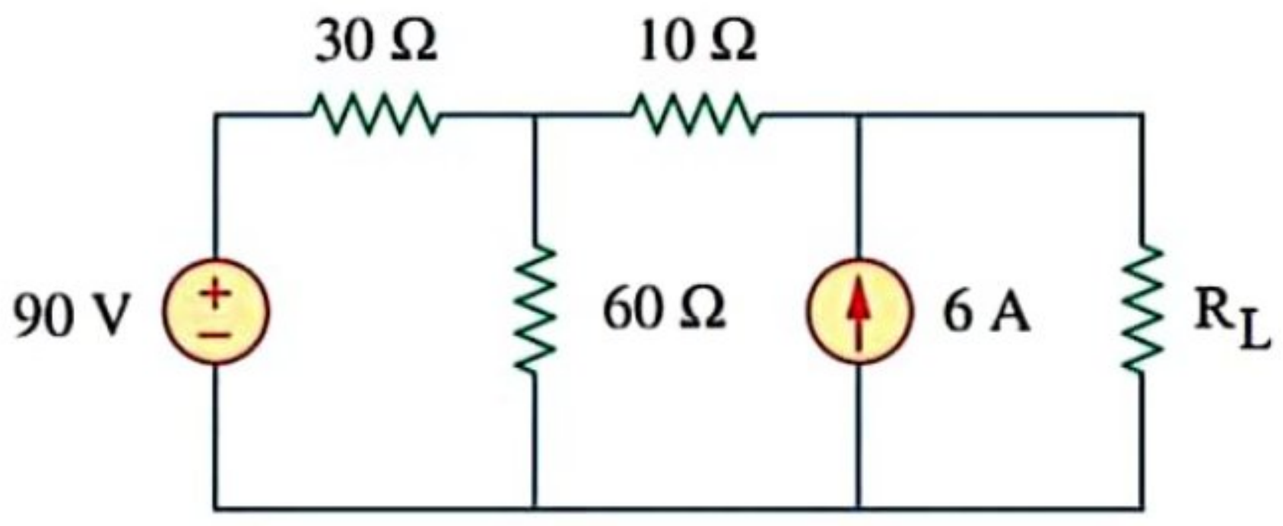
3. **Use** most effective source transformation to determine v_x in the following circuit. [CO2,C4, EP1, Mark: 3]



4. **Find** the Thevenin's equivalent of the following circuit. Consider, the resistor R as the load. [CO2,C4, EP1,EP2, Mark: 4]



5. **Determine** the value of R_L for maximum power transfer to the load of the following circuit. **Calculate** the maximum power. [CO2,C4, EP1,EP2, Mark: 3]



December 14, 2021

EAST WEST UNIVERSITY
Department of Computer Science and Engineering
B.Sc. in Computer Science and Engineering Program
Mid Term 2, Fall 2021

Course:	**CSE 109/209 – Electrical Circuits, Section-4**
Instructor:	**M. Saddam Hossain Khan, Senior Lecturer, CSE Department**
Full Marks:	**20**
Time:	**1 Hour and 30 Minutes [Including attachment time]**

Note: There are FIVE questions, answer ALL of them. Course outcomes (CO), Cognitive level and marks of each question are mentioned at the right margin.

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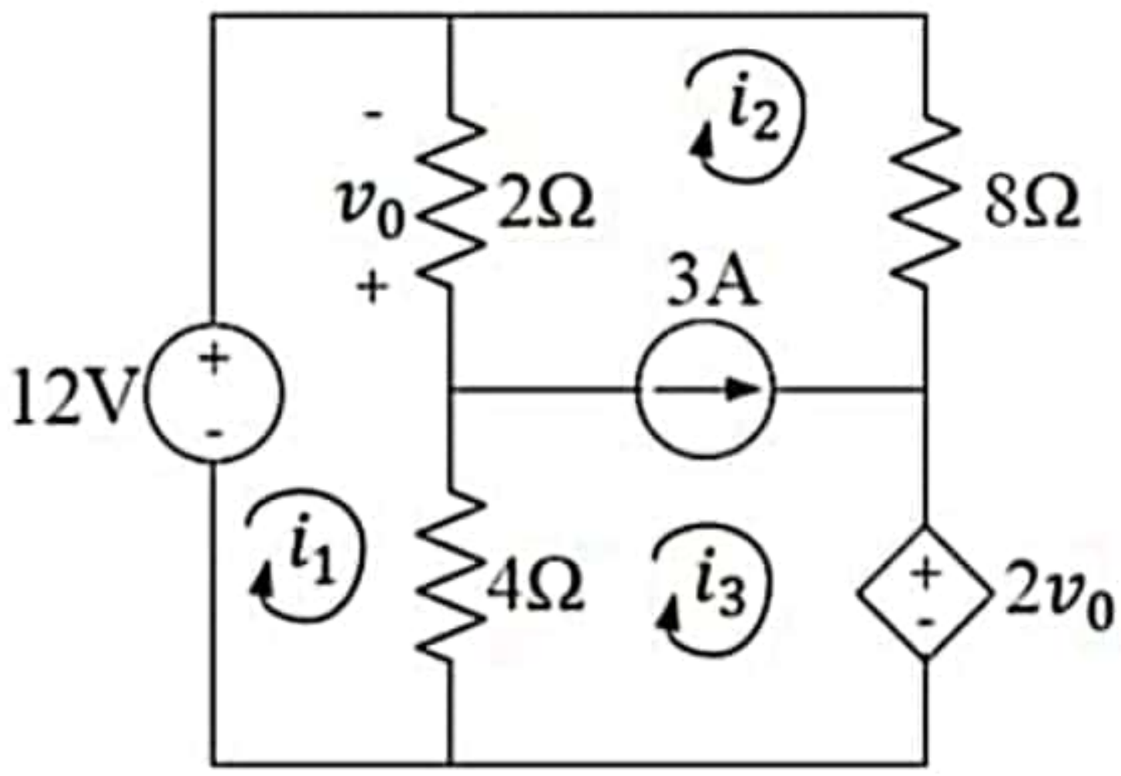
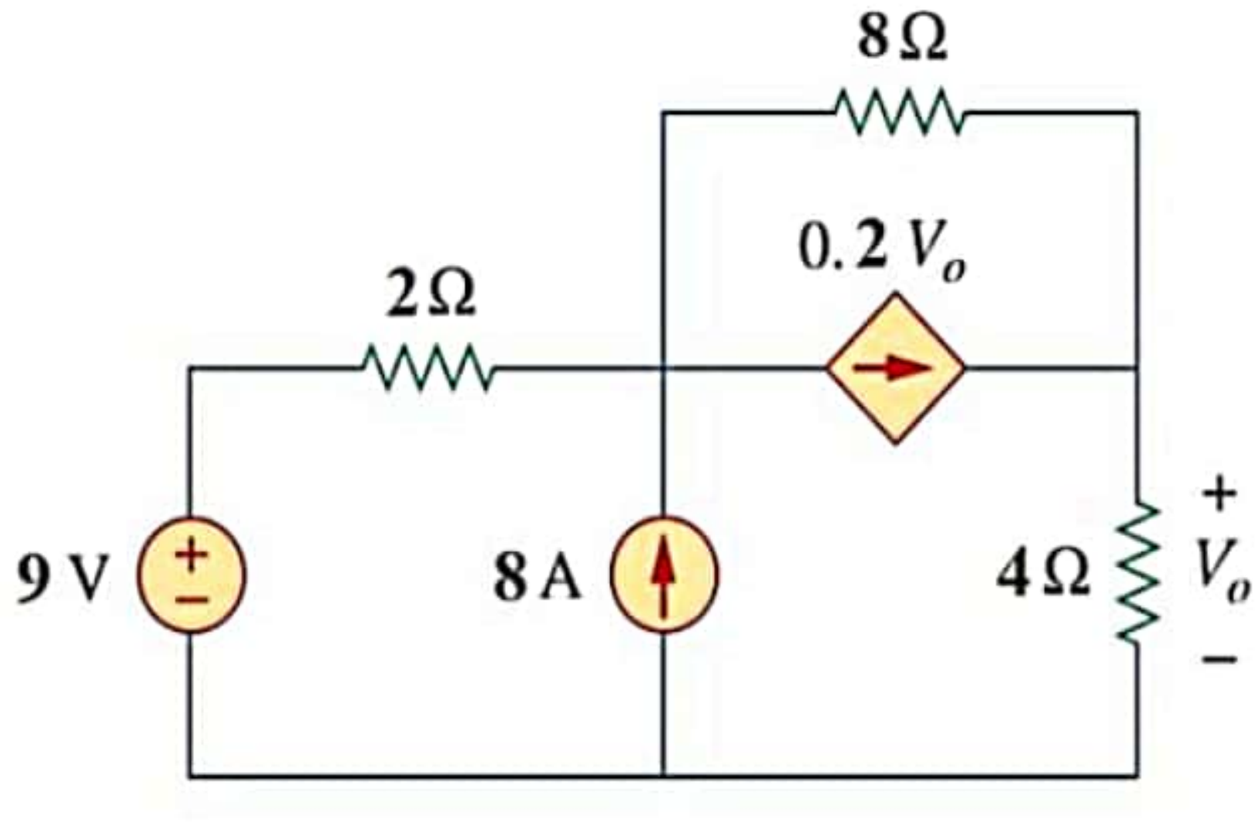
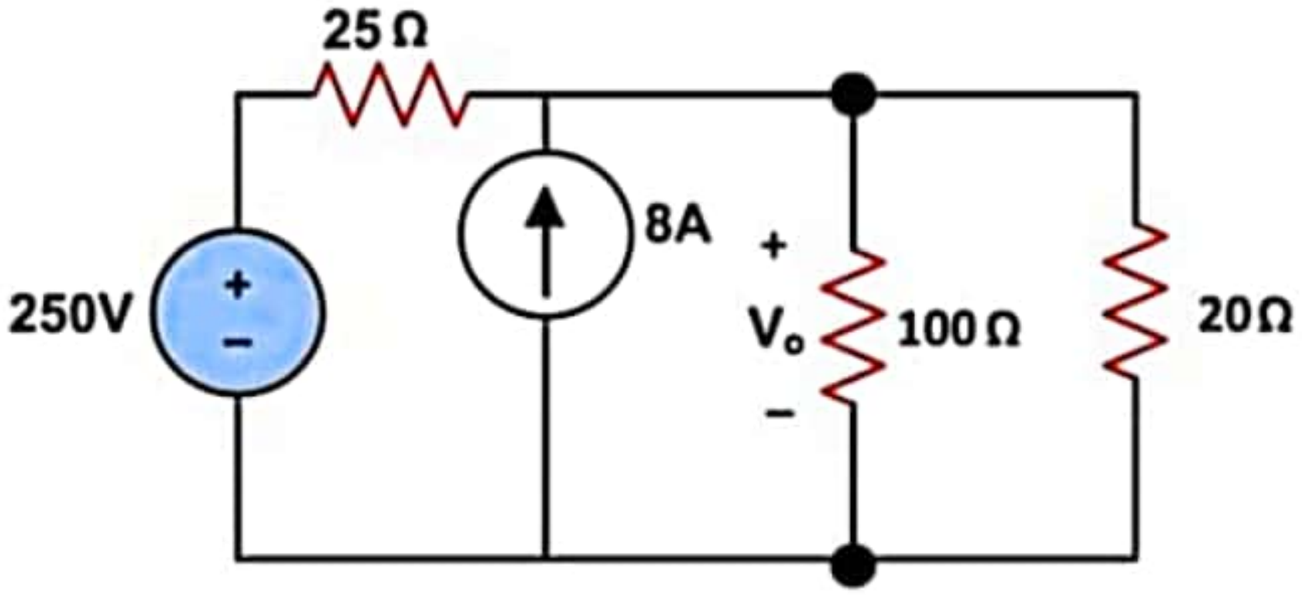
1. Using mesh currents indicated in the circuit, **determine** i_1 , i_2 *and* i_3 in the following circuit [Using Cramer's rule]. [CO2,C4, Mark: 6]



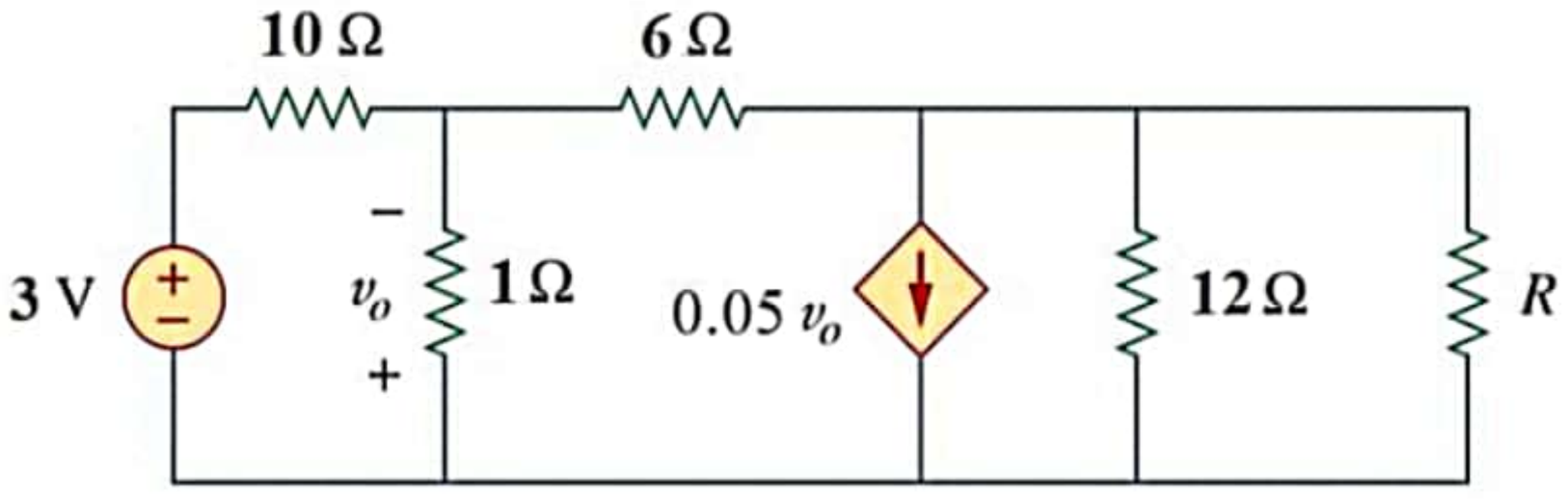
2. **Use** superposition technique to determine V_o in the following circuit. [CO2,C4, Mark: 4]



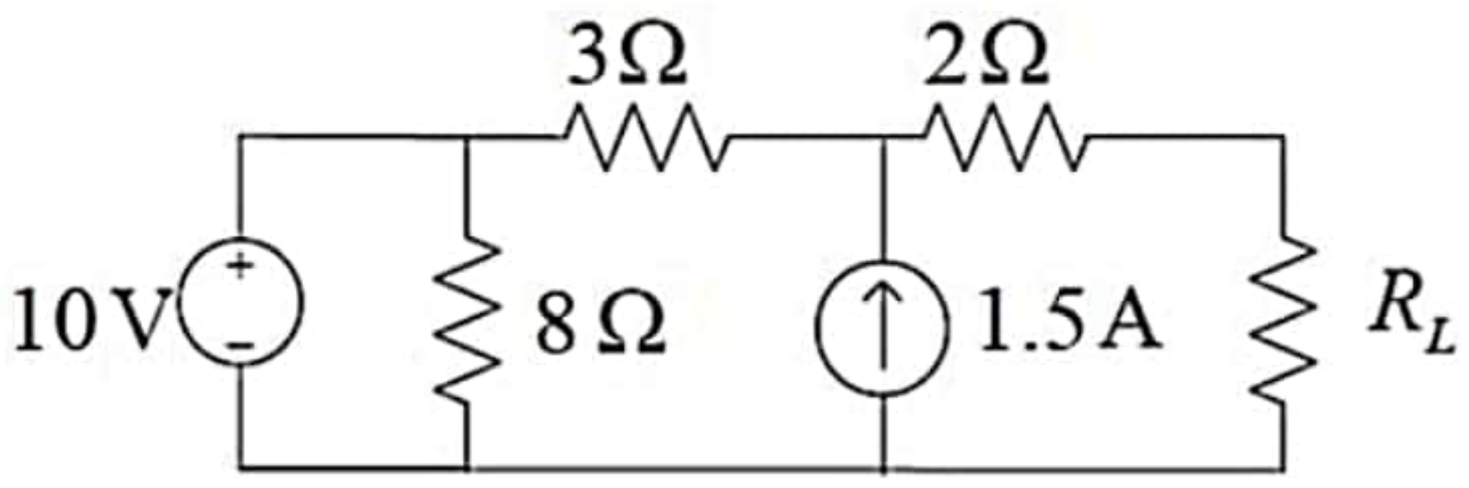
3. **Use** most effective source transformation to determine V_o in the following circuit. [CO2,C4, EP1, Mark: 3]



4. **Find** the Norton's equivalent of the following circuit. Consider, the resistor R as the load. [CO2,C4, EP1,EP2, Mark: 4]



5. **Determine** the value of R_L for maximum power transfer to the load of the following circuit. **Calculate** the maximum power. [CO2,C4, EP1,EP2, Mark: 3]



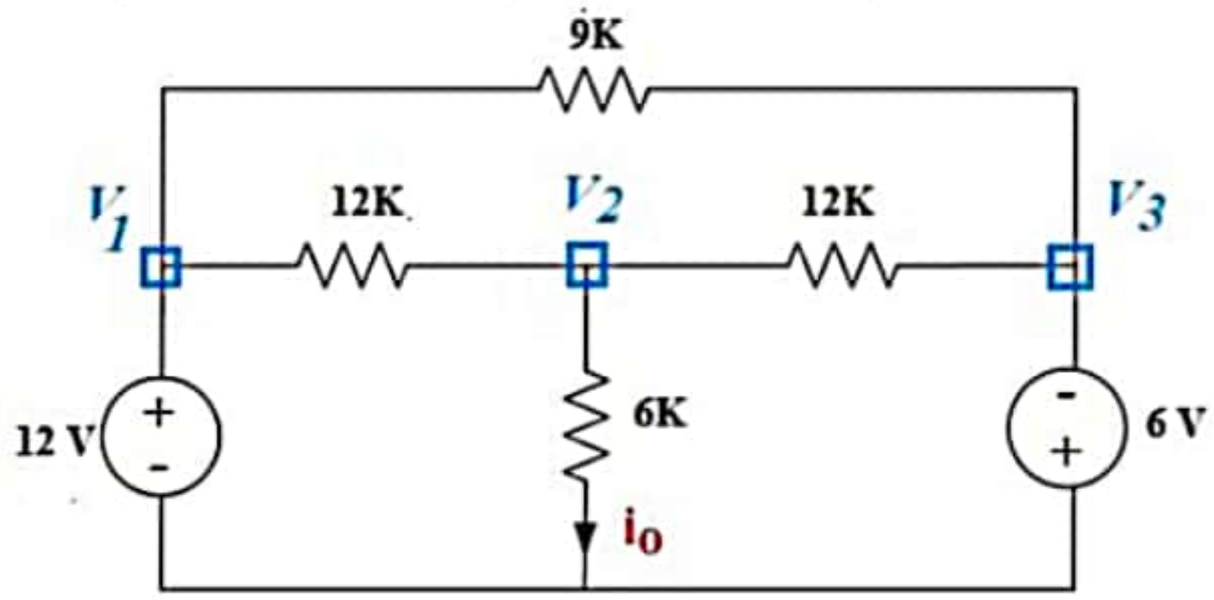
May 2, 2021

EAST WEST UNIVERSITY
Department of Computer Science and Engineering
B.Sc. in Computer Science and Engineering Program
In Course Assessment - 2, Spring 2021

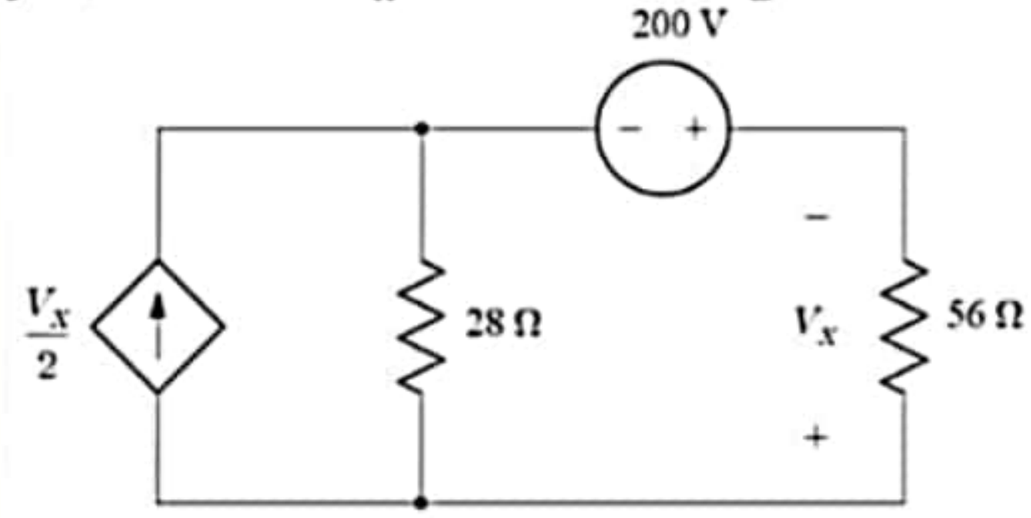
Course: CSE 209 – Electrical Circuits, Section-4
Instructor: SHK, Senior Lecturer, CSE Department
Full Marks: 19
Time: 1 Hour and 30 Minutes [Including submission time]

Note: There are FOUR questions, answer ALL of them. Course outcomes (CO), cognitive levels and marks of each question are mentioned at the right margin.

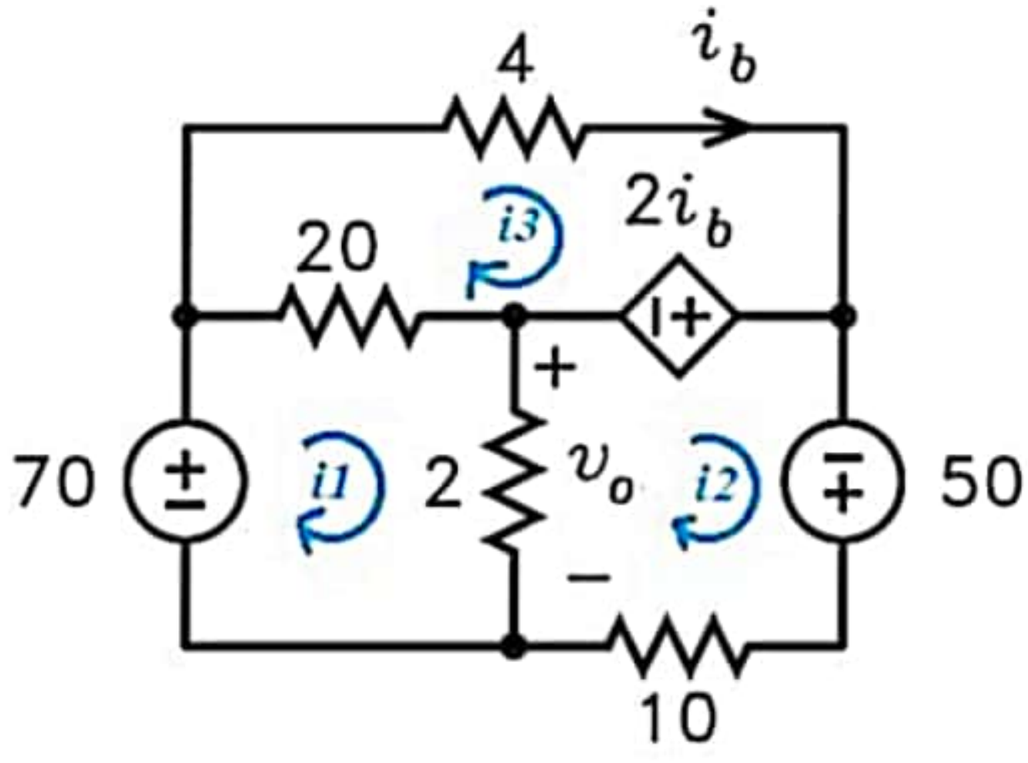
1a. **Apply** nodal analysis to determine i_0 from the circuit given below. [CO2, Mark:4]



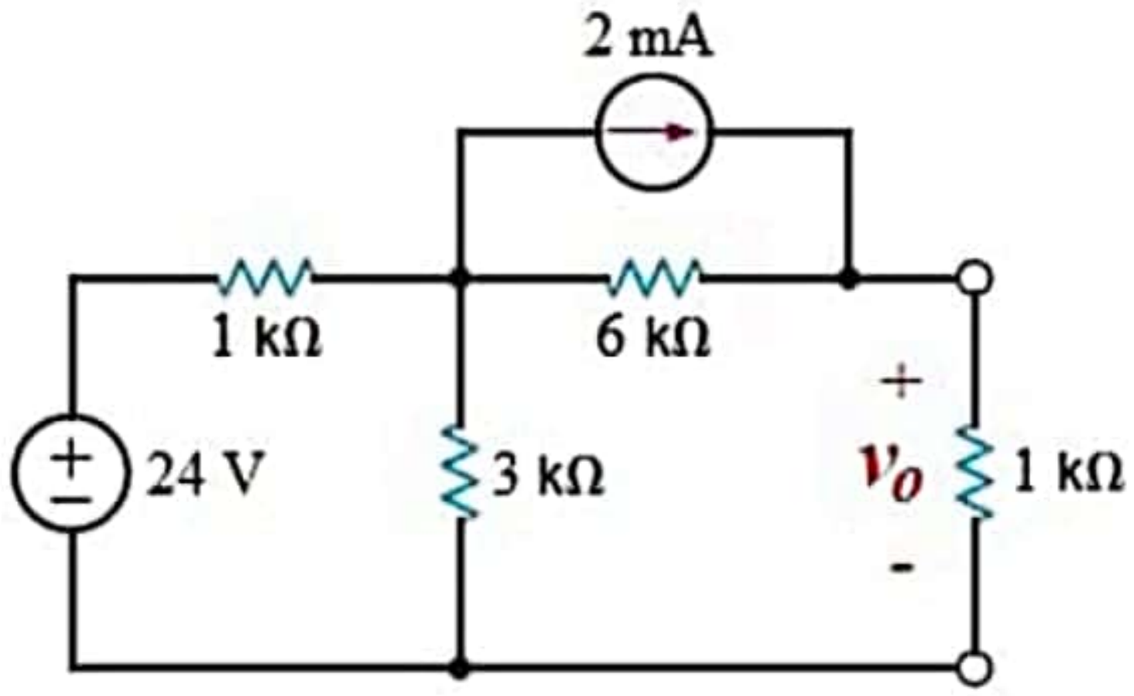
1b. Using nodal analysis, **determine** V_X from the circuit given below. [CO2, Mark:2]



2. Using mesh currents indicated in the circuit, **determine** v_0 in the following circuit. [CO2, Mark:6]



3. Use most effective source transformation to determine v_0 in the following circuit. [CO2, Mark: 3]



4. Use superposition technique to determine i in the following circuit. [CO2, Mark: 4]