

Brac University

Semester: Fall 2025
Course Code: CSE481
Quantum Computing I
Section: 01
Faculty: SDS

Name:

Set
A

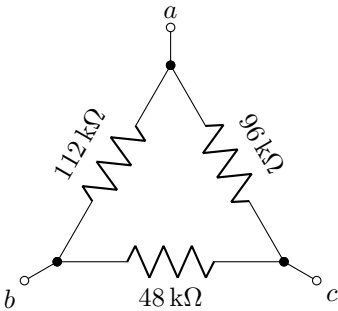
- ✓ No washroom breaks. Phones must be turned off. Using/carrying any notes during the exam is not allowed.
- ✓ All **4 question(s)** are compulsory. Marks allotted for each question are mentioned beside each question.
- ✓ Write your answers inside the indicated boxes (where applicable). If you run out of room, continue on the back page.
- ✓ Symbols have their usual meanings.

DO NOT WRITE ANYTHING ELSE INSIDE THIS BORDER

Student ID	Answers (Q1-Q10)	Answers (Q11-Q20)	Answers (Q21-Q30)
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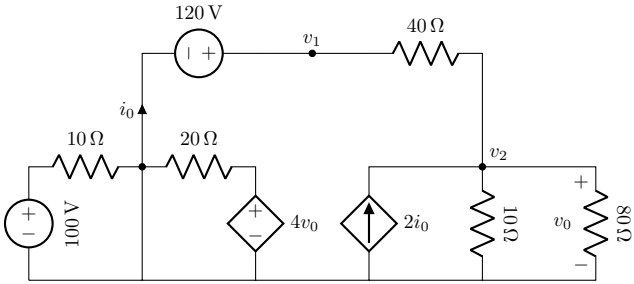
◆ Question 1 of 4 [CO3] [5 marks]



Which of the following statements is true?

- (a) $R_{ab} = R_{bc} = R_{ca} = 24.889\text{ k}\Omega$
- (b) $R_{ab} = 63\text{ k}\Omega, R_{bc} = 39\text{ k}\Omega, R_{ca} = 60\text{ k}\Omega$
- (c) $R_{ab} = 63\text{ }\Omega, R_{bc} = 39\text{ }\Omega, R_{ca} = 60\text{ }\Omega$
- (d) $R_{ab} = 112\text{ k}\Omega, R_{bc} = 48\text{ k}\Omega, R_{ca} = 96\text{ k}\Omega$
- (e) None of the above

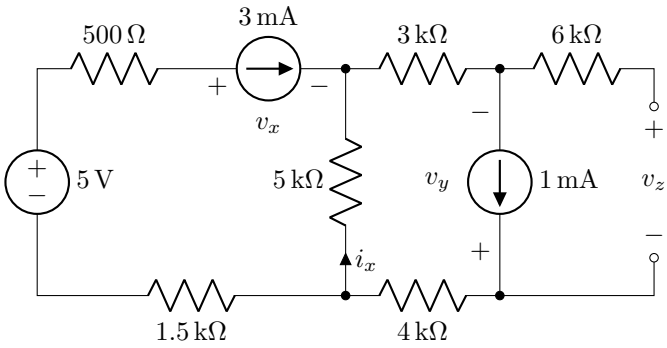
◆ Question 2 of 4 [CO1] [1 mark]



How many nodes are in this circuit?

- (a) 6 (b) 3 (c) 5 (d) 7 (e) 4

◆ Question 3 of 4 [CO3] [2 marks]

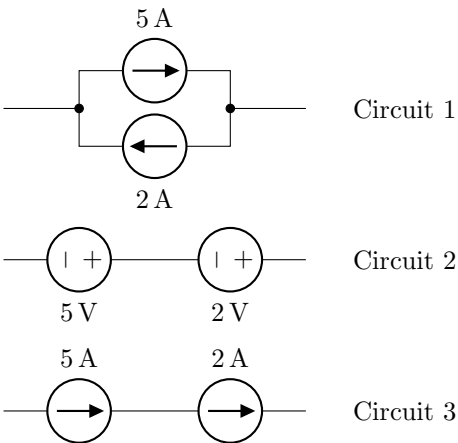


- (a) a
- (b) b
- (c) c

Which of the following circuits is/are impossible (violates Kirchhoff’s laws)?

◇ Question 4 of 4

[CO1] [2 marks]



- (a) Circuit 1
- (b) Circuit 2
- (c) Circuit 3
- (d) Circuit 1 & 3
- (e) None of the above
- Do you have any suggestion that may improve this course?

Your Suggestions

..... ↓ Your Roughts ↓

Name:



Inspiring Excellence

Assessment: *Lab Quiz*
Duration: 1 hour
Date: February 12, 2026
Full Marks: 10

Brac University

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Course Code: CSE481
Quantum Computing I
Section: 01
Faculty: SDS

Set
B

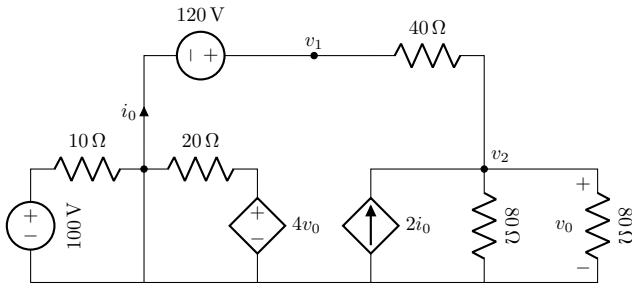
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2	2	12	22
3	3	13	23
4	4	14	24
5	5	15	25
6			
7	A B C D	A B C D	A B C D
8	6	16	26
9	7	17	27
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	9	19	29
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Set Identifier			
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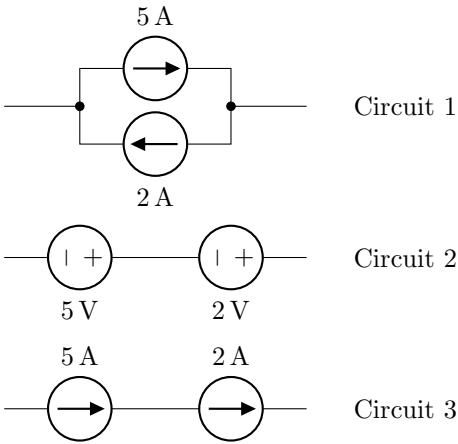
◇ Question 1 of 4 [CO1] [1 mark]



How many nodes are in this circuit?
(a) 3 (b) 7 (c) 4 (d) 6 (e) 5

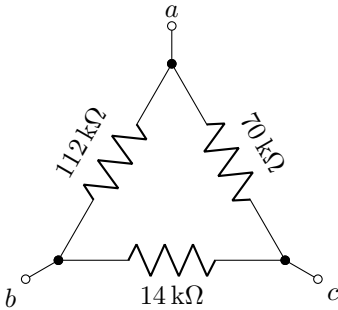
◇ Question 2 of 4 [CO1] [2 marks]

Which of the following circuits is/are impossible (violates Kirchhoff's laws)?



- (a) Circuit 1 & 3 (b) Circuit 1 (c) Circuit 3
(d) Circuit 2 (e) None of the above

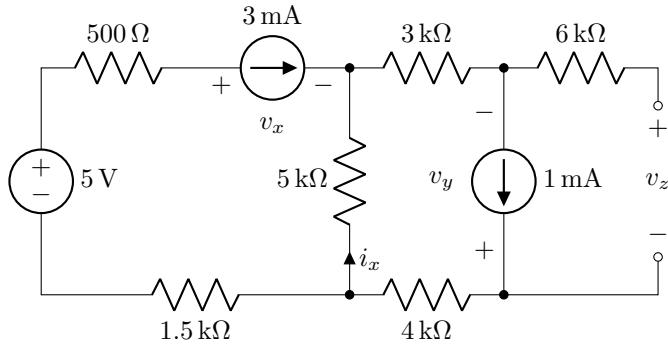
◇ Question 3 of 4 [CO3] [5 marks]



Which of the following statements is true?

- (a) $R_{ab} = 48\,\Omega, R_{bc} = 13\,\Omega, R_{ca} = 45\,\Omega$
- (b) $R_{ab} = 48\,\text{k}\Omega, R_{bc} = 13\,\text{k}\Omega, R_{ca} = 45\,\text{k}\Omega$
- (c) $R_{ab} = 112\,\text{k}\Omega, R_{bc} = 14\,\text{k}\Omega, R_{ca} = 70\,\text{k}\Omega$
- (d) $R_{ab} = R_{bc} = R_{ca} = 10.566\,\text{k}\Omega$
- (e) None of the above

◇ Question 4 of 4 [CO3] [2 marks]



- (a) a
- (b) b
- (c) c

Do you have any suggestion that may improve this course?

Your Suggestions

..... ↓ Your Roughts ↓

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Set
C



Inspiring Excellence

Assessment: Lab Quiz

Duration: 1 hour

Date: February 12, 2026

Full Marks: 10

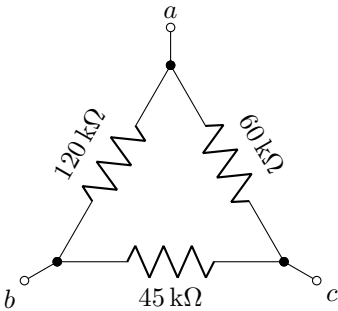
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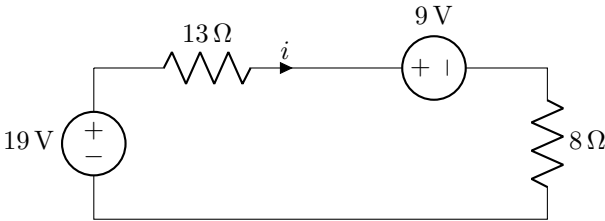
Question 1 of 4 [CO3] [5 marks]



Which of the following statements is true?

- (a) $R_{ab} = 56\text{ k}\Omega$, $R_{bc} = 36\text{ k}\Omega$, $R_{ca} = 44\text{ k}\Omega$
- (b) $R_{ab} = 120\text{ k}\Omega$, $R_{bc} = 45\text{ k}\Omega$, $R_{ca} = 60\text{ k}\Omega$
- (c) $R_{ab} = 56\text{ }\Omega$, $R_{bc} = 36\text{ }\Omega$, $R_{ca} = 44\text{ }\Omega$
- (d) $R_{ab} = R_{bc} = R_{ca} = 21.176\text{ k}\Omega$
- (e) None of the above

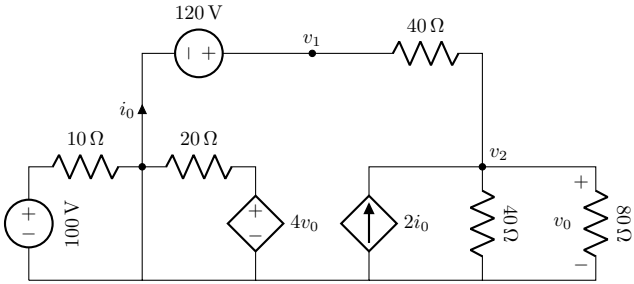
Question 2 of 4 [CO3] [2 marks]



What's the relation between v_1 , v_2 and i ?

- (a) $-19 + 13i - 9 + 8i = 0$
- (b) $-19 - 13i - 9 + 8i = 0$
- (c) $-19 - 13i + 9 + 8i = 0$
- (d) $-19 + 13i + 9 + 8i = 0$
- (e) None of the above

Question 3 of 4 [CO1] [1 mark]

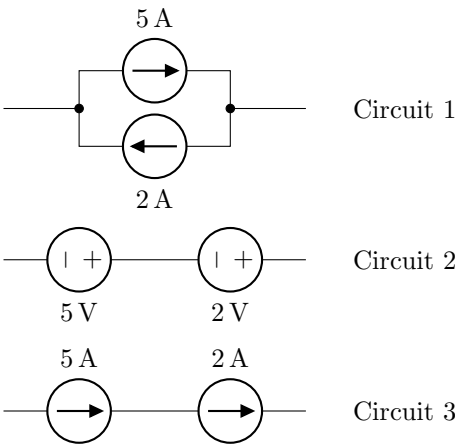


How many nodes are in this circuit?

- (a) 3 (b) 6 (c) 4 (d) 7 (e) 5

Question 4 of 4 [CO1] [2 marks]

Which of the following circuits is/are impossible (violates Kirchhoff's laws)?



- (a) Circuit 3

(d) Circuit 2
- (b) Circuit 1

(e) None of the above
- (c) Circuit 1 & 3

Do you have any suggestion that may improve this course?

Your Suggestions

..... ↓ *Your Roughts* ↓

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Set
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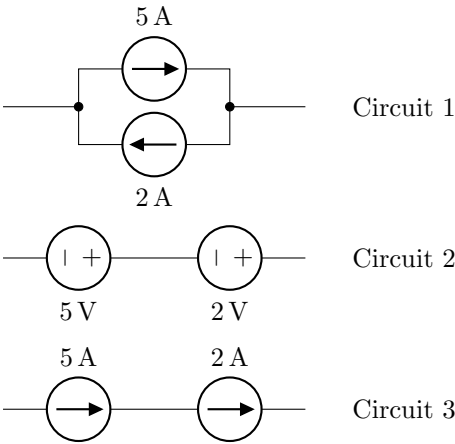
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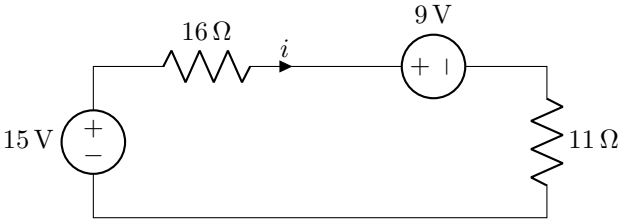
◇ Question 1 of 4 [CO1] [2 marks]

Which of the following circuits is/are impossible (violates Kirchhoff's laws)?



- (a) Circuit 2 (b) Circuit 3 (c) Circuit 1 (d) Circuit 1 & 3 (e) None of the above

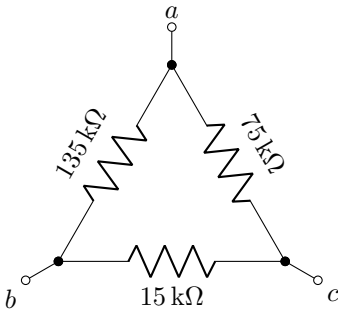
◇ Question 2 of 4 [CO3] [2 marks]



What's the relation between v_1 , v_2 and i ?

- (a) $-15 - 16i - 9 + 11i = 0$
(b) $-15 + 16i + 9 + 11i = 0$
(c) $-15 + 16i - 9 + 11i = 0$
(d) $-15 - 16i + 9 + 11i = 0$
(e) None of the above

◇ Question 3 of 4 [CO3] [5 marks]

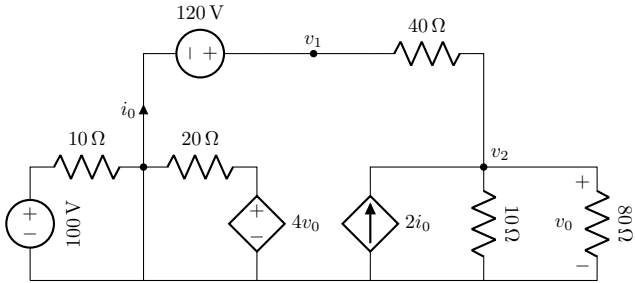


Which of the following statements is true?

- (a) $R_{ab} = 54\,\Omega, R_{bc} = 14\,\Omega, R_{ca} = 50\,\Omega$
- (b) $R_{ab} = R_{bc} = R_{ca} = 11.441\,\text{k}\Omega$
- (c) $R_{ab} = 135\,\text{k}\Omega, R_{bc} = 15\,\text{k}\Omega, R_{ca} = 75\,\text{k}\Omega$
- (d) $R_{ab} = 54\,\text{k}\Omega, R_{bc} = 14\,\text{k}\Omega, R_{ca} = 50\,\text{k}\Omega$
- (e) None of the above

◇ Question 4 of 4

[CO1] [1 mark]



How many nodes are in this circuit?

- (a) 7
- (b) 5
- (c) 6
- (d) 4
- (e) 3
- Do you have any suggestion that may improve this course?

Your Suggestions

..... ↓ Your Roughs ↓

