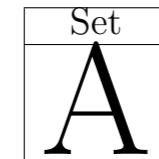


Name: \_\_\_\_\_

**Brac University**

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



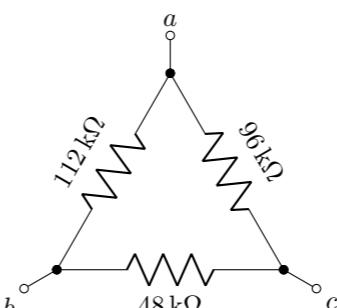
Assessment: Lab Quiz  
 Duration: 1 hour  
 Date: February 12, 2026  
 Full Marks: 10

- ✓ 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.

■	Student ID				■	Answers (Q1-Q10)				■	Answers (Q11-Q20)				■	Answers (Q21-Q30)				■
0	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	11	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	21	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
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## ◊ Question 1 of 4

[CO3] [5 marks]

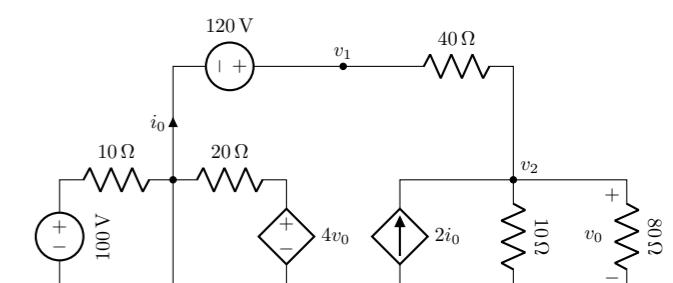


Which of the following statements is true?

- $R_{ab} = R_{bc} = R_{ca} = 24.889 \text{ k}\Omega$
- $R_{ab} = 63 \text{ k}\Omega, R_{bc} = 39 \text{ k}\Omega, R_{ca} = 60 \text{ k}\Omega$
- $R_{ab} = 63 \Omega, R_{bc} = 39 \Omega, R_{ca} = 60 \Omega$
- $R_{ab} = 112 \text{ k}\Omega, R_{bc} = 48 \text{ k}\Omega, R_{ca} = 96 \text{ k}\Omega$
- None of the above

## ◊ Question 2 of 4

[CO1] [1 mark]

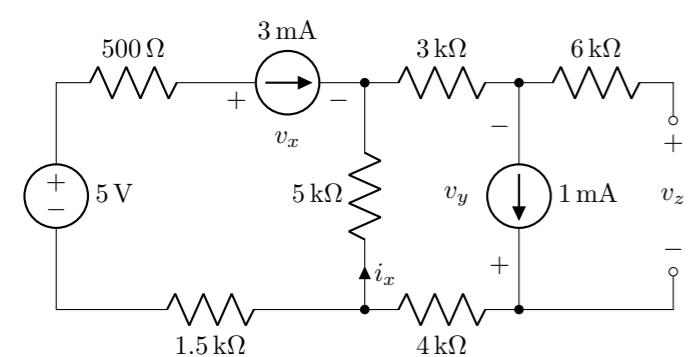


How many nodes are in this circuit?

- 6
- 3
- 5
- 7
- 4

## ◊ Question 3 of 4

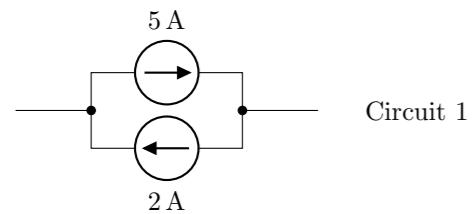
[CO3] [2 marks]



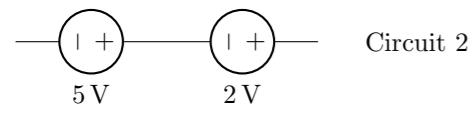
- (a) a  
 (b) b  
 (c) c

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

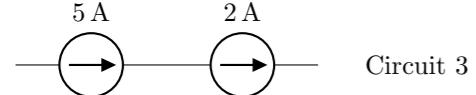
◊ **Question 4 of 4** [CO1] [2 marks]



Circuit 1



Circuit 2



Circuit 3

- (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 Roughs ↓ .....



Name \_\_\_\_\_

Brac University

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

# Set B

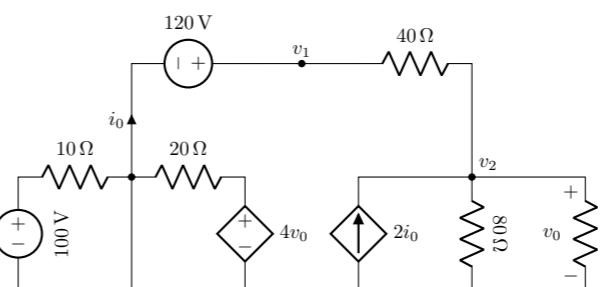
Assessment: *Lab Quiz*  
Duration: 1 hour  
Date: February 12, 2026  
Full Marks: 10

- ✓ 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.

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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

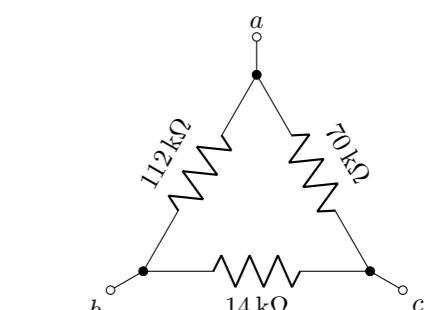
[CO1] [2 marks]

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

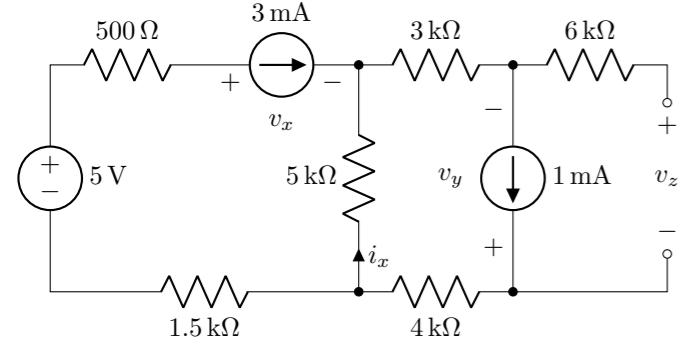
[CO3] [5 marks]



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 Roughs ↓ .....



Brac University

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

# Set C

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

- ✓ 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.

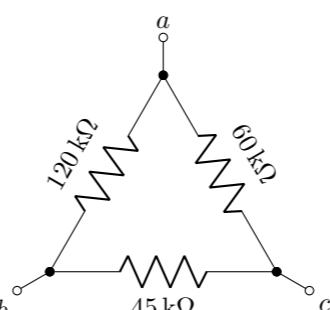
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◊ Question 1 of 4

[CO3] [5 marks] |

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

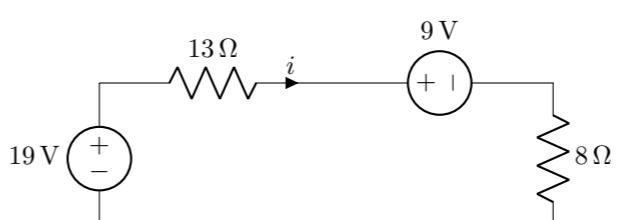


Which of the following statements is true?

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

◇ Question 2 of 4

[CO3] [2 marks]



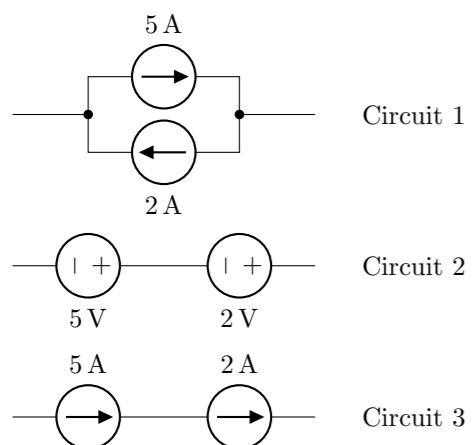
How many nodes are in this circuit?

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

Your Suggestions

..... ↓ Your Roughs ↓ .....

Name: \_\_\_\_\_

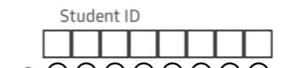
**Brac University**

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

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

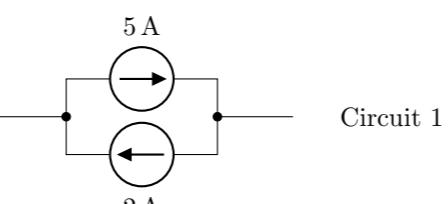
- ✓ No washroom breaks. Phones must be turned off. Using/carrying any notes during the exam is not allowed.
- ✓ All 4 question(s) are compulsory. Marks allotted for each question are mentioned beside each question.
- ✓ Write your answers inside the indicated boxes (where applicable). If you run out of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

DO NOT WRITE ANYTHING ELSE INSIDE THIS BORDER	Student ID  0 1 2 3 4 5 6 7 8 9  Set Identifier 	Answers (Q1-Q10) A B C D 1 2 3 4 5  Answers (Q11-Q20) A B C D 11 12 13 14 15  Answers (Q21-Q30) A B C D 21 22 23 24 25  Answers (Q21-Q30) A B C D 26 27 28 29 30	DO NOT WRITE ANYTHING ELSE INSIDE THIS BORDER
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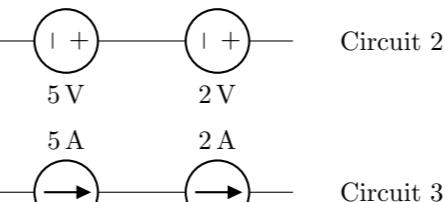
## ◊ Question 1 of 4

[CO1] [2 marks]

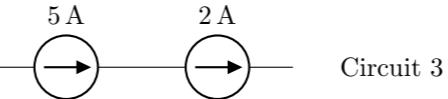
Which of the following circuits is/are impossible (violates Kirchhoff's laws)?



Circuit 1



Circuit 2

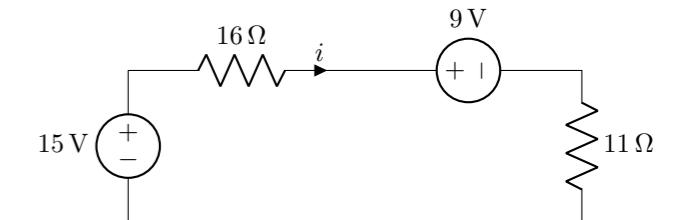


Circuit 3

- (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]

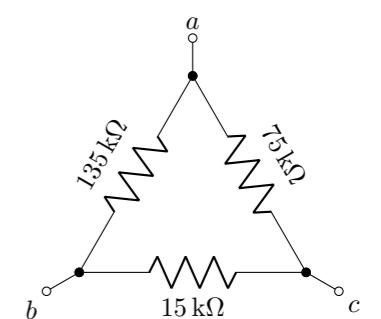


What's the relation between  $v_1$ ,  $v_2$  and  $i$ ?

- (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]

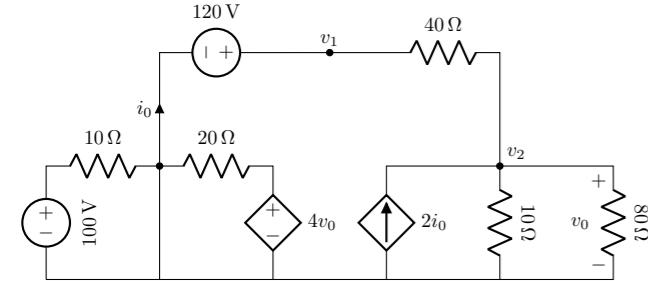


Which of the following statements is true?

- (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 ↓ .....



