

Question No : 1 of 26

Marks: 1 (Budgeted Time 1 Min)

What is the electron valence of an element of atomic number 10

Answer (Please select your correct option)

8

zero

10

2

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Question No : 2 of 26

Marks: 1 (Budgeted Time 1 Min)

Germanium and silicon are

Answer (Please select your correct option)

Conductors

Semiconductors

Insulators

Gases

Made By: Waqar Siddhu

Question No : 3 of 26

Marks: 1 (Budgeted Time 1 Min)

If magnitude of the current is controlled by input current the source is called

Answer (Please select your correct option)

Current controlled current source

Current controlled voltage source

Voltage controlled voltage source

Voltage controlled current source

Made By: Waqar Siddhu

Question No : 4 of 26

Marks: 1 (Budgeted Time 1 Min)

Junction of two or more than two elements in a circuit is called

Answer (Please select your correct option)

Loop

ground

node

joint

Made By: Waqar Siddhu

Question No : 5 of 26

Marks: 1 (Budgeted Time 1 Min)

Conventional current is

Answer (Please select your correct option)

Flow of electrons from negative terminal of battery to positive terminal.

Flow of electrons from positive terminal of battery to negative terminal.

Flow of positive-charge carriers from the positive terminal of a cell to its negative terminal.

Flow of neutrons

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Question No : 6 of 26

Marks: 1 (Budgeted Time 1 Min)

In a series circuit, if R is increased double, voltage drop across it will be

Answer (Please select your correct option)

increase four time

same

double

half

Made By: Waqar Siddhu

Question No : 7 of 26

Marks: 1 (Budgeted Time 1 Min)

When one resistance in a series string is open

Answer (Please select your correct option)

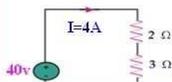
- The current is zero in all resistances
- The voltage is zero across the open resistance
- The current increases in voltage source
- The current is maximum in the normal resistances.

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Question No : 8 of 26

Marks: 1 (Budgeted Time 1 Min)

For the given figure, voltage drop across 5Ω is



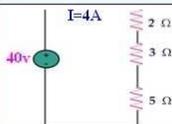
Answer (Please select your correct option)

- 40v
- 8v
- 12v
- 20v

Made By: Waqar Siddhu

Question No : 8 of 26

Marks: 1 (Budgeted Time 1 Min)



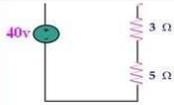
Answer (Please select your correct option)

- 40v
- 8v
- 12v
- 20v

Made By: Waqar Siddhu

Question No : 8 of 26

Marks: 1 (Budgeted Time 1 Min)



Answer (Please select your correct option)

40v

8v

12v

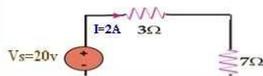
20v

Made By: Waqar Siddhu

Question No : 9 of 26

Marks: 1 (Budgeted Time 1 Min)

For the given figure, Power dissipated through voltage source is



Answer (Please select your correct option)

20w

40w

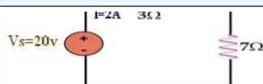
80w

10w

Made By: Waqar Siddhu

Question No : 9 of 26

Marks: 1 (Budgeted Time 1 Min)



Answer (Please select your correct option)

20w

40w

80w

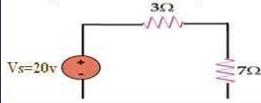
10w

Made By: Waqar Siddhu

Question No : 10 of 26

Marks: 1 (Budgeted Time 1 Min)

In the figure below, Voltage drop across 7Ω will be



Answer (Please select your correct option)

20v

14v

6v

10v

Made By: Waqar Siddhu

Question No : 10 of 26

Marks: 1 (Budgeted Time 1 Min)



Answer (Please select your correct option)

20v

14v

6v

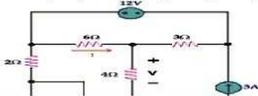
10v

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Question No : 11 of 26

Marks: 1 (Budgeted Time 1 Min)

How many loops can be assigned to given figure?



Answer (Please select your correct option)

2

4

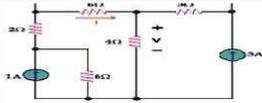
3

5

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Question No : 11 of 26

Marks: 1 (Budgeted Time 1 Min)



Answer (Please select your correct option)

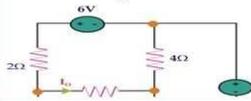
- 2
- 4
- 3
- 5

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Question No : 12 of 26

Marks: 1 (Budgeted Time 1 Min)

The value of I_a for given circuit is



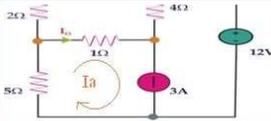
Answer (Please select your correct option)

- $I_a = 0$
- $I_a = 3A$
- $I_a = -3A$
- $I_a = 6v$

Made By: Waqar Siddhu

Question No : 12 of 26

Marks: 1 (Budgeted Time 1 Min)



Answer (Please select your correct option)

- $I_a = 0$
- $I_a = 3A$
- $I_a = -3A$
- $I_a = 6v$

Made By: Waqar Siddhu

Question No : 12 of 26

Marks: 1 (Budgeted Time 1 Min)



Answer (Please select your correct option)

$I_a = 10$

$I_a = 3A$

$I_a = -3A$

$I_a = 6V$

Made By: Waqar Siddhu

Question No : 13 of 26

Marks: 1 (Budgeted Time 1 Min)

How many independent current values are given in the circuit?



Answer (Please select your correct option)

2

3

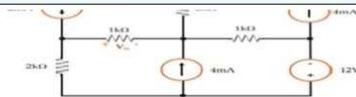
4

1

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Question No : 13 of 26

Marks: 1 (Budgeted Time 1 Min)



Answer (Please select your correct option)

2

3

4

1

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Question No : 14 of 26

Marks: 1 (Budgeted Time 1 Min)

What will be the determinant of $|A|$ if

$$Adj(A) = \begin{bmatrix} 5 & 10 \\ 2 & 6 \end{bmatrix}$$

Answer (Please select your correct option)

5

10

30

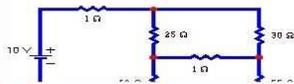
20

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Question No : 15 of 26

Marks: 1 (Budgeted Time 1 Min)

How many KVL equations can be written for the given circuit?



Answer (Please select your correct option)

4

3

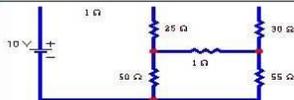
1

2

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Question No : 15 of 26

Marks: 1 (Budgeted Time 1 Min)



Answer (Please select your correct option)

4

3

1

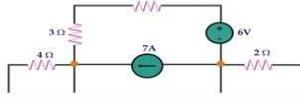
2

Made By: Waqar Siddhu

Question No : 16 of 26

Marks: 1 (Budgeted Time 1 Min)

For the given diagram, value of coupling equation may be



Answer (Please select your correct option)

$V_1 - V_2 = 6V$

$V_1 - V_2 = 2V$

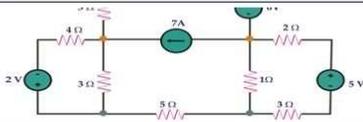
$I_A - I_B = 7A$

$V_1 - V_2 = 7V$

Made By: Waqar Siddhu

Question No : 16 of 26

Marks: 1 (Budgeted Time 1 Min)



Answer (Please select your correct option)

$V_1 - V_2 = 6V$

$V_1 - V_2 = 2V$

$I_A - I_B = 7A$

$V_1 - V_2 = 7V$

Made By: Waqar Siddhu

Question No : 17 of 26

Marks: 1 (Budgeted Time 1 Min)

The reference/common point among all the nodes without insertion of any component between them is called

Answer (Please select your correct option)

node

ground

loop

mesh

Made By: Waqar Siddhu

Question No : 18 of 26

Marks: 1 (Budgeted Time 1 Min)

Three bulbs are connected in series of a battery, what would happen if any one bulb is opened.



Answer (Please select your correct option)

- half of current will flow
- same current will flow
- no current will flow
- 2/3 current will flow

Made By: Waqar Siddhu

Question No : 18 of 26

Marks: 1 (Budgeted Time 1 Min)



Answer (Please select your correct option)

- half of current will flow
- same current will flow
- no current will flow
- 2/3 current will flow

Made By: Waqar Siddhu

Question No : 19 of 26

Marks: 1 (Budgeted Time 1 Min)

In given circuit power dissipated across each bulb is 20w. What would be the resistance of each bulb.



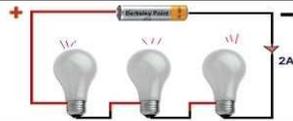
Answer (Please select your correct option)

- 5Ω
- 10Ω
- 40Ω
- 20Ω

Made By: Waqar Siddhu

Question No : 19 of 26

Marks: 1 (Budgeted Time 1 Min)



Answer (Please select your correct option)

5Ω

10Ω

40Ω

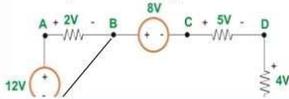
20Ω

Made By: Waqar Siddhu

Question No : 20 of 26

Marks: 1 (Budgeted Time 1 Min)

For the given circuit, voltage V_{DH} is



Answer (Please select your correct option)

8v

12v

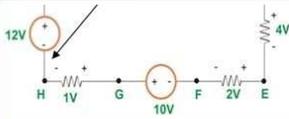
10v

-10v

Made By: Waqar Siddhu

Question No : 20 of 26

Marks: 1 (Budgeted Time 1 Min)



Answer (Please select your correct option)

8v

12v

10v

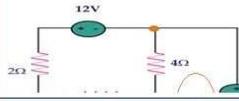
-10v

Made By: Waqar Siddhu

Question No : 21 of 26

Marks: 2 (Budgeted Time 4 Min)

For the given circuit, write the coupling equation.



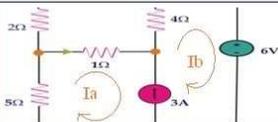
Answer (Please [click here](#) to Add Answer)

Rich text editor toolbar with options for font style (Normal), font face (Arial), font size (12), bold (B), italic (I), underline (U), bulleted list, numbered list, link, unlink, and a 100% zoom level.

Made By: Waqar Siddhu

Question No : 21 of 26

Marks: 2 (Budgeted Time 4 Min)



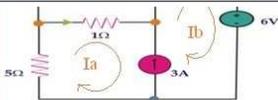
Answer (Please [click here](#) to Add Answer)

Rich text editor toolbar with options for font style (Normal), font face (Arial), font size (12), bold (B), italic (I), underline (U), bulleted list, numbered list, link, unlink, and a 100% zoom level.

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Question No : 21 of 26

Marks: 2 (Budgeted Time 4 Min)



Answer (Please [click here](#) to Add Answer)

Rich text editor toolbar with options for font style (Normal), font face (Arial), font size (12), bold (B), italic (I), underline (U), bulleted list, numbered list, link, unlink, and a 100% zoom level.

Made By: Waqar Siddhu

Question No : 22 of 26

Marks: 2 (Budgeted Time 4 Min)

State Kirchhoff's voltage law (KVL).

Answer (Please [click here](#) to Add Answer)

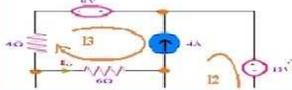
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Made By: Waqar Siddhu

Question No : 23 of 26

Marks: 3 (Budgeted Time 6 Min)

Write KVL equation for super mesh.



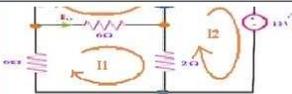
Answer (Please [click here](#) to Add Answer)

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Made By: Waqar Siddhu

Question No : 23 of 26

Marks: 3 (Budgeted Time 6 Min)



Answer (Please [click here](#) to Add Answer)

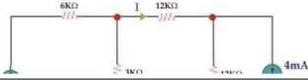
Rich text editor toolbar with options for font style, size, color, and alignment. The text area is empty.

Made By: Waqar Siddhu

Question No : 24 of 26

Marks: 3 (Budgeted Time 6 Min)

Identify and label each mesh otherwise you will lose your marks. Write each step of the calculation to get maximum marks and also mention the units of each derived value.
Find Value of current I using KVL



Answer (Please [click here](#) to Add Answer)

Rich text editor interface with a toolbar containing icons for undo, redo, bold, italic, underline, text color, background color, bulleted list, numbered list, link, unlink, and a 100% zoom level. The text area is currently empty.

Made By: Waqar Siddhu

Question No : 24 of 26

Marks: 3 (Budgeted Time 6 Min)



Answer (Please [click here](#) to Add Answer)

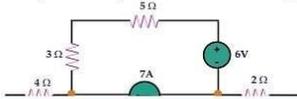
Rich text editor interface with a toolbar containing icons for undo, redo, bold, italic, underline, text color, background color, bulleted list, numbered list, link, unlink, and a 100% zoom level. The text area is currently empty.

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Question No : 25 of 26

Marks: 5 (Budgeted Time 10 Min)

Identify and label each mesh otherwise you will lose your marks. Label circuit diagram properly. Write KVL equation for super mesh.



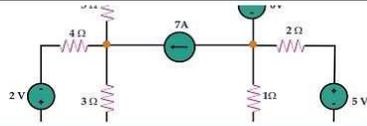
Answer (Please [click here](#) to Add Answer)

Rich text editor interface with a toolbar containing icons for undo, redo, bold, italic, underline, text color, background color, bulleted list, numbered list, link, unlink, and a 100% zoom level. The text area is currently empty.

Made By: Waqar Siddhu

Question No : 25 of 26

Marks: 5 (Budgeted Time 10 Min)



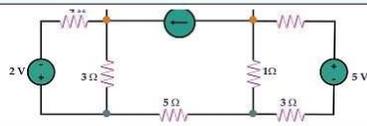
Answer (Please [click here](#) to Add Answer)

Rich text editor toolbar with options for font style, size, and alignment. The text area is empty.

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Question No : 25 of 26

Marks: 5 (Budgeted Time 10 Min)



Answer (Please [click here](#) to Add Answer)

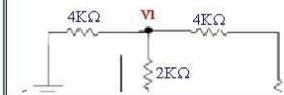
Rich text editor toolbar with options for font style, size, and alignment. The text area is empty.

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Question No : 26 of 26

Marks: 5 (Budgeted Time 10 Min)

Find I_o using nodal analysis



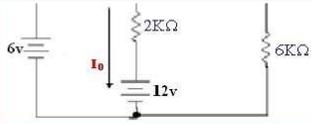
Answer (Please [click here](#) to Add Answer)

Rich text editor toolbar with options for font style, size, and alignment. The text area is empty.

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Question No : 26 of 26

Marks: 5 (Budgeted Time 10 Min)



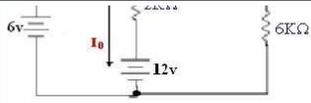
Answer (Please [click here](#) to Add Answer)



Made By: Waqar Siddhu

Question No : 26 of 26

Marks: 5 (Budgeted Time 10 Min)



Answer (Please [click here](#) to Add Answer)



Made By: Waqar Siddhu