

Question No : 1 of 26		Marks: 1 (Budgeted Time 1 Min)
<p>What is the electron valence of an element of atomic number 10</p>		
Answer (Please select your correct option)		
<input type="radio"/>	8	
<input type="radio"/>	zero	
<input type="radio"/>	10	
<input type="radio"/>	2	

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Question No : 2 of 26		Marks: 1 (Budgeted Time 1 Min)
<p>Germanium and silicon are</p>		
Answer (Please select your correct option)		
<input type="radio"/>	Conductors	
<input type="radio"/>	Semiconductors	
<input type="radio"/>	Insulators	
<input type="radio"/>	Gases	

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Question No : 3 of 26		Marks: 1 (Budgeted Time 1 Min)
<p>If magnitude of the current is controlled by input current the source is called</p>		
Answer (Please select your correct option)		
<input type="radio"/>	Current controlled current source	
<input type="radio"/>	Current controlled voltage source	
<input type="radio"/>	Voltage controlled voltage source	
<input type="radio"/>	Voltage controlled current source	

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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

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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

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Question No : 7 of 26

Marks: 1 (Budgeted Time 1 Min)

When one resistance in a series string is open

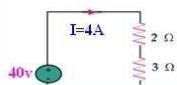
Answer (Please select your correct option)

- ☐ 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

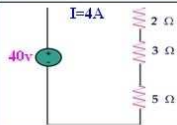
Answer (Please select your correct option)

- ☐ 40v
- ☐ 8v
- ☐ 12v
- ☐ 20v

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Question No : 8 of 26

Marks: 1 (Budgeted Time 1 Min)



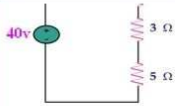
Answer (Please select your correct option)

- ☐ 40v
- ☐ 8v
- ☐ 12v
- ☐ 20v

Made By: Waqar Siddhu

Question No : 8 of 26

Marks: 1 (Budgeted Time 1 Min)



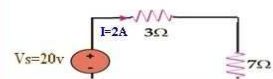
Answer (Please select your correct option)

☐ 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

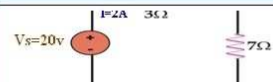


Answer (Please select your correct option)

☐ 20w☐ 40w☐ 80w☐ 10w**Made By: Waqar Siddhu**

Question No : 9 of 26

Marks: 1 (Budgeted Time 1 Min)

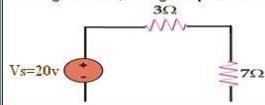


Answer (Please select your correct option)

☐ 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

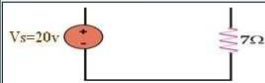
Answer (Please select your correct option)

- ☐ 20v
- ☐ 14v
- ☐ 6v
- ☐ 10v

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Question No : 10 of 26

Marks: 1 (Budgeted Time 1 Min)



Answer (Please select your correct option)

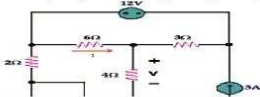
- ☐ 20v
- ☐ 14v
- ☐ 6v
- ☐ 10v

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Question No : 11 of 26

Marks: 1 (Budgeted Time 1 Min)

How many loops can be assigned to given figure?



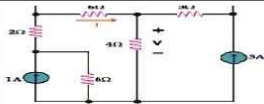
Answer (Please select your correct option)

- ☐ 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)

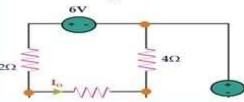
- ☐ 2
- ☐ 4
- ☐ 3
- ☐ 5

Made By: Waqar Siddhu

Question No : 12 of 26

Marks: 1 (Budgeted Time 1 Min)

The value of I_a for given circuit is



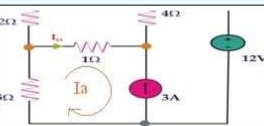
Answer (Please select your correct option)

- ☐ $I_a = 10$
- ☐ $I_a = 3A$
- ☐ $I_a = -3A$
- ☐ $I_a = 6V$

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Question No : 12 of 26

Marks: 1 (Budgeted Time 1 Min)



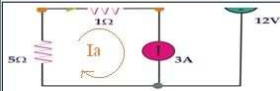
Answer (Please select your correct option)

- ☐ $I_a = 10$
- ☐ $I_a = 3A$
- ☐ $I_a = -3A$
- ☐ $I_a = 6V$

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Question No : 12 of 26

Marks: 1 (Budgeted Time 1 Min)



Answer (Please select your correct option)

☐ $I_a = 10$

☐ $I_a = 3A$

☐ $I_a = -3A$

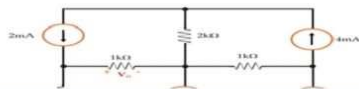
☐ $I_a = 6V$

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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

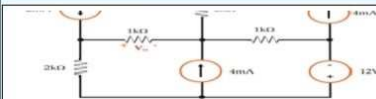
☐ 4

☐ 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

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

Answer (Please select your correct option)

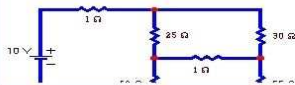
- ☐ 5
- ☐ 10
- ☐ 30
- ☐ 20

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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?



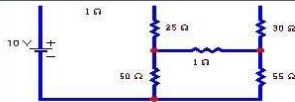
Answer (Please select your correct option)

- ☐ 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)

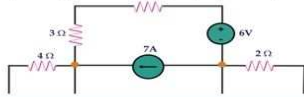
- ☐ 4
- ☐ 3
- ☐ 1
- ☐ 2

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

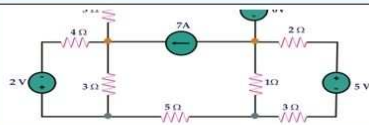


Answer (Please select your correct option)

☐ $V_1 - V_2 = 6V$
☐ $V_1 - V_2 = 2V$
☐ $I_A - I_B = 7A$
☐ $V_1 - V_2 = 7V$
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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

☐ node

☐ ground

☐ loop

☐ mesh
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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

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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.



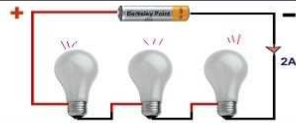
Answer (Please select your correct option)

- ☐ 5Ω
- ☐ 10Ω
- ☐ 40Ω
- ☐ 20Ω

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Question No : 19 of 26

Marks: 1 (Budgeted Time 1 Min)



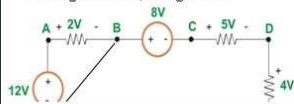
Answer (Please select your correct option)

- ☐ 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_{BD} is

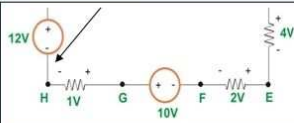
Answer (Please select your correct option)

- ☐ 8v
- ☐ 12v
- ☐ 10v
- ☐ -10v

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Question No : 20 of 26

Marks: 1 (Budgeted Time 1 Min)



Answer (Please select your correct option)

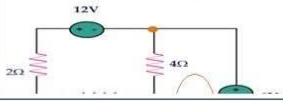
- ☐ 8v
- ☐ 12v
- ☐ 10v
- ☐ -10v

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Question No : 21 of 26

Marks: 2 (Budgeted Time 4 Min)

For the given circuit, write the coupling equation.



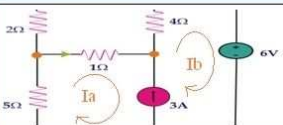
Answer (Please [click here](#) to Add Answer)

Normal Arial 12 B I U

Made By: Waqar Siddhu

Question No : 21 of 26

Marks: 2 (Budgeted Time 4 Min)



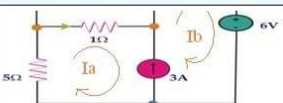
Answer (Please [click here](#) to Add Answer)

Normal Arial 12 B I U

Made By: Waqar Siddhu

Question No : 21 of 26

Marks: 2 (Budgeted Time 4 Min)



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

Normal Arial 12 B I U

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Question No : 22 of 26

Marks: 2 (Budgeted Time 4 Min)

State Kirchhoff's voltage law (KVL).

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

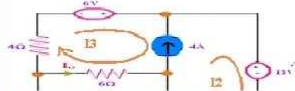


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Question No : 23 of 26

Marks: 3 (Budgeted Time 6 Min)

Write KVL equation for super mesh.



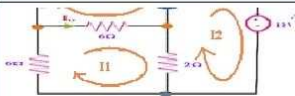
Answer (Please [click here](#) to Add Answer)



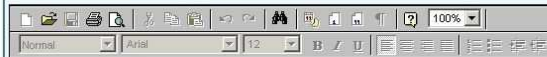
Made By: Waqar Siddhu

Question No : 23 of 26

Marks: 3 (Budgeted Time 6 Min)



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

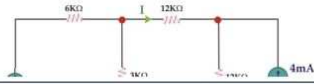


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Question No : 24 of 26

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 toolbar with options for font style, size, color, background color, bold, italic, underline, link, unlink, list, and image. The text area is empty.

Made By: Waqar Siddhu

Question No : 24 of 26

Marks: 3 (Budgeted Time 6 Min)

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

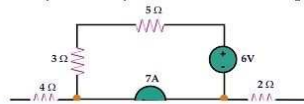
Rich text editor toolbar with options for font style, size, color, background color, bold, italic, underline, link, unlink, list, and image. The text area is empty.

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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.

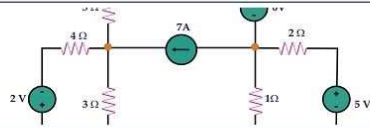
Answer (Please [click here](#) to Add Answer)

Rich text editor toolbar with options for font style, size, color, background color, bold, italic, underline, link, unlink, list, and image. The text area is empty.

Made By: Waqar Siddhu

Question No : 25 of 26

Marks: 5 (Budgeted Time 10 Min)



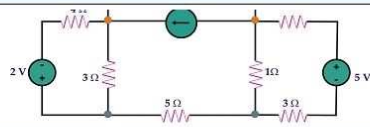
Answer (Please [click here](#) to Add Answer)

Rich text editor toolbar with options for font style, size, color, 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)

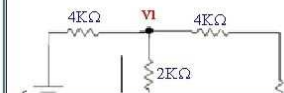
Rich text editor toolbar with options for font style, size, color, and alignment. The text area is empty.

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Question No : 26 of 26

Marks: 5 (Budgeted Time 10 Min)

Find I_o using nodal analysis



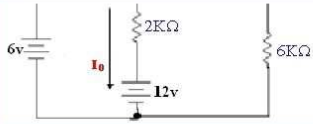
Answer (Please [click here](#) to Add Answer)

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

Made By: Waqar Siddhu

Question No : 26 of 26

Marks: 5 (Budgeted Time 10 Min)



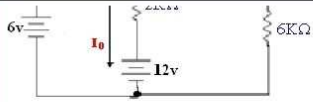
Answer (Please [click here](#) to Add Answer)



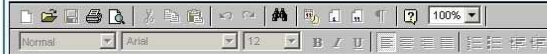
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Question No : 26 of 26

Marks: 5 (Budgeted Time 10 Min)



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



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