

**SRM INSTITUTE OF SCIENCE AND TECHNOLOGY - RAMAPURAM**  
**DEPARTMENT OF ECE & EEE**  
**18EES101J – BASIC ELECTRICAL AND ELECTRONICS ENGINEERING**  
**MULTIPLE CHOICE QUESTION –**  
**QUESTION BANK**  
**UNIT 1 - ELECTRICAL CIRCUITS**

1) Thevenin resistance is found by

- A. Shorting all voltage sources
- B. Opening all current sources
- ☒ C. Shorting all voltage sources and opening all current sources
- D. Opening all voltage sources and shorting all current sources

2) In a star connected system, the current flowing through the line is

- A. Greater than the phase current
- ☒ B. Equal to the phase current
- C. Lesser than the phase current
- D. zero

3) The 2ohm and 3 ohm resistor are in series the equivalent resistance is

- A. 1.2
- ☒ B. 5
- C. 4.2
- D. 1.4

4) The internal resistance for the maximum transfer of power should be

- ☒ A. equal to load resistance
- B. greater than load resistance
- C. zero
- D. lesser than load resistance

5) If the voltage frequency applied to a series RC circuit is increased, then the phase angle will

- A. Increases
- ☒ B. reduces
- C. remains the same
- D. zero

6) In an RLC circuit above the resonant frequency, the current will

- ☒ A. lags the applied voltage
- B. leads the applied voltage

C. is in phase with the applied voltages

D. is zero

7) The equation for ohms law is

☒ A.  $V=IR$ , at constant temperature

B.  $V=IC$

C.  $V=IL$

D.  $V=I/R$

8) A 6 kHz sinusoidal voltage is applied to a series  $RC$  circuit. The frequency of the voltage across the resistor is

☒ A. 6Khz

B. 12Khz

C. 13Khz

D. 14Khz

9) In a certain load, the actual power is 150 W and the reactive power is 125 VAR. What is the apparent power?

A. 19.52W

☒ B. 195.2W

C. 375W

D. 24W

10) What is the unit of power?

☒ A. Watt

B. Newton

C. Joule

D. Henry

11) Mesh analysis employs the method of

☒ A. KVL

B. KCL

C. Both KVL and KCL

D. Neither KVL or KCL

12) If there are 10 nodes in a circuit, how many equations do we get?

A. 10

☒ B. 9

C. 8

D. 7

13) Superposition theorem can only be used for circuits

A. Element resistive

B. Element passive

☒ C. Linear bilateral elements

D. Non-linear elements

14) Each phase of a three phase alternator delta connected produces a voltage of 11KV and a current of 1000A at pf 0.9. Find line voltage and line current.

A. 11KV, 1732A

B. 11KV, 1632A

C. 3.33KV, 1732A

D. 3.33V, 1000A

15) In a balanced three phase system three voltages differ in \_\_\_\_\_ electrical from each other in a sequence and have equal magnitude.

A. 240

☒ B. 120

C. 360

D. 0

16) For series circuit the equivalent resistance is \_\_\_\_\_ the greatest resistance connected in series circuit.

A. lesser than

☒ B. greater than

C. equal to

D. not equal to

17) The non-linear circuit parameters are ?

A. Inductance

B. Capacitance

C. Resistance

☒ D. Transistor



18) In a series  $RC$  circuit, find the RMS voltage where the voltage across resistor is  $12\text{ V}_{(\text{rms})}$  and voltage across capacitor is  $15\text{ V}_{(\text{rms})}$ . The rms source voltage is

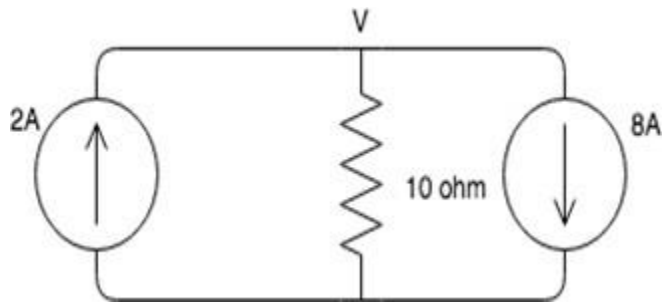
A. 3

B. 27

C. 19.2

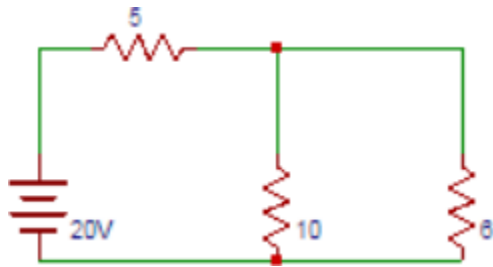
D. 40

19. The voltage  $V$  using nodal analysis



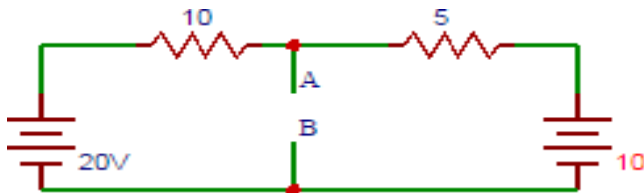
- A. -60V
- B. 60V
- C. -40V
- D. 40V

20. Find the current flowing between terminals A and B of the circuit shown below.



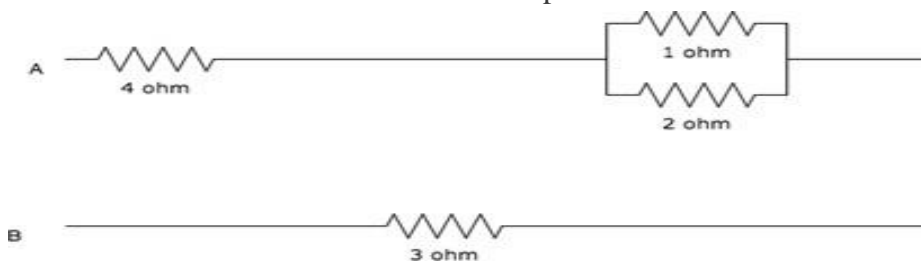
- A. 1
- B. 2
- C. 3
- D. 4

21. Find the current flowing between terminals A and B.



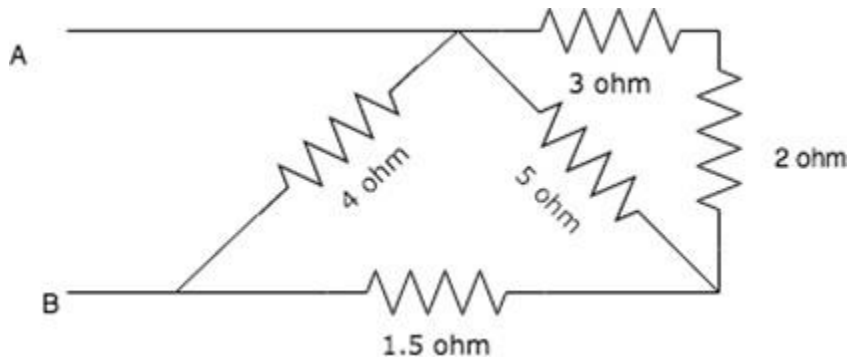
- A. 1
- B. 2
- C. 3
- D. 4

22. Calculate the total resistance between the points A and B.



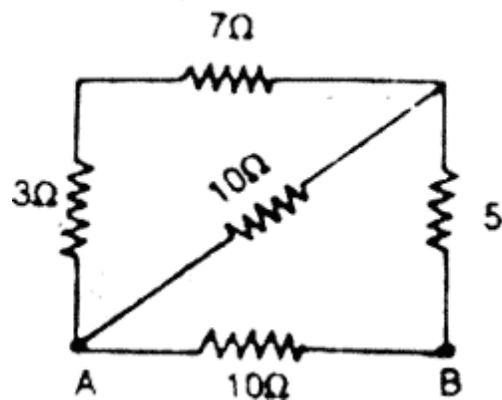
- A. 7 ohm
- B. 4 ohm
- ☒ C. 7.6 ohm
- D. 0.48 ohm

23. Calculate the equivalent resistance between A and B.



- ☒ A. 2
- B. 4
- C. 6
- D. 8

24. The resistance are connected in series. Find the equivalent resistance



- A. 35
- B. 25
- C. 15
- ☒ D. 5

25. An electric kettle has a resistance of 30ohm. What current will flow when it is connected to 240V supply. Also find the power.

- ☒ A. 8A, 1.92Kw
- B. 9A, 3Kw

C. 10A,4Kw

D. 12A,5Kw

**26. An ideal voltage source has**

☒ A. Zero internal resistance

B. Open circuit voltage equal to the voltage on full load

C. Terminal voltage in proportion to current

D. Terminal voltage in proportion to load

**27. To find impedance in thevenins theorem.**

A. All independent current sources are short circuited and independent voltage sources are open circuited

B. All independent voltage sources are open circuited and all independent current sources are short circuited

C. All independent voltage and current sources are short circuited

☒ D. All independent voltage sources are short circuited and all independent current sources are open circuited

**28. Application of Norton's theorem to a circuit yields**

A. Equivalent current source and impedance in series

☒ B. Equivalent current source and impedance in parallel

C. Equivalent impedance

D. Equivalent current source

29. What will be the resistance of the wire which has 0.14 mm diameter and specific resistance 9.6 micro ohm-cm is 440 cm long. The resistance of the wire will be

A. 9.6 ohm

B. 11.3 ohm

C. 13.7 ohm

☒ D. 27.4 ohm

30. In Superposition theorem, while considering a source, all other voltage sources are?

A. open circuited

☒ B. short circuited

C. change its position

D. removed from the circuit

31. How line voltage and phase voltage are related in three phase star connected system?

A.  $V_L \cong V_{PH}$

☒ B.  $V_L \cong \sqrt{3}V_{PH}$

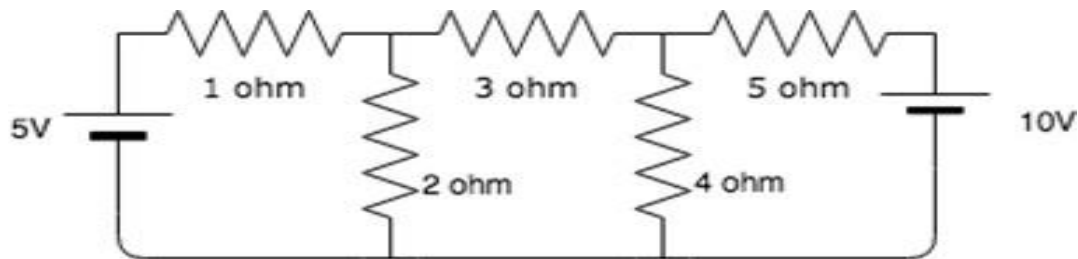
C.  $V_L \cong \sqrt{2}V_{PH}$

D.  $V_L \cong 2V_{PH}$

32. In three phase voltage generation the windings are placed at

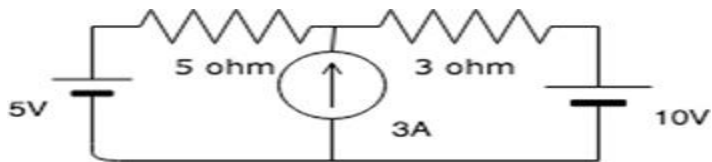
- a. 240 degree apart
- b. 45 degree apart
- ☒ c. 120 degree apart
- d. 360 degree apart

33. Find the value of the currents  $I_1$ ,  $I_2$  and  $I_3$  flowing clockwise in the first, second and third mesh respectively.



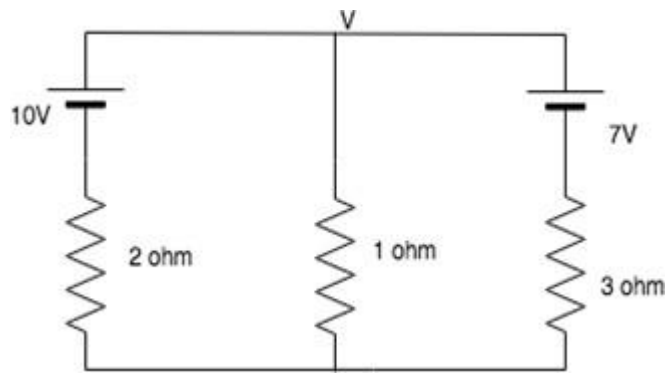
- ☒ A. 1.54A, -0.189A, -1.195A
- B. 2.34A, -3.53A, -2.23A
- C. 4.33A, 0.55A, 6.02A
- D. -1.18A, -1.17A, -1.16A

34. Calculate the mesh currents  $I_1$  and  $I_2$  flowing in the first and second meshes respectively



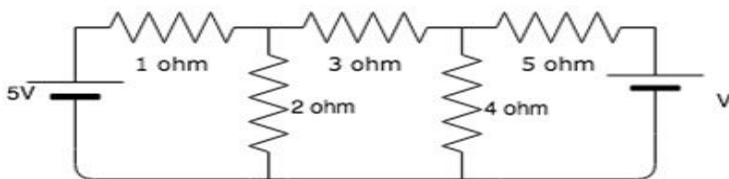
- ☒ A. 1.75A, 1.25A
- B. 0.5A, 2.5A
- C. 2.3A, 0.3A
- D. 3.2A, 6.5A

35. Find the node voltage  $V$ .



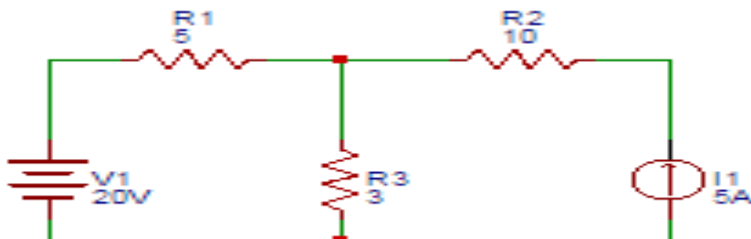
- A. 1V
- B. 2V
- C. 3V
- ☒ D. 4V

36. Find the value of  $V$  if the current in the 3 ohm resistor = 0.



- A. 3.5V
- B. 6.5V
- ☒ C. 7.5V
- D. 8.5V

37. In the circuit shown, find the current through  $4\Omega$  resistor using Superposition theorem.

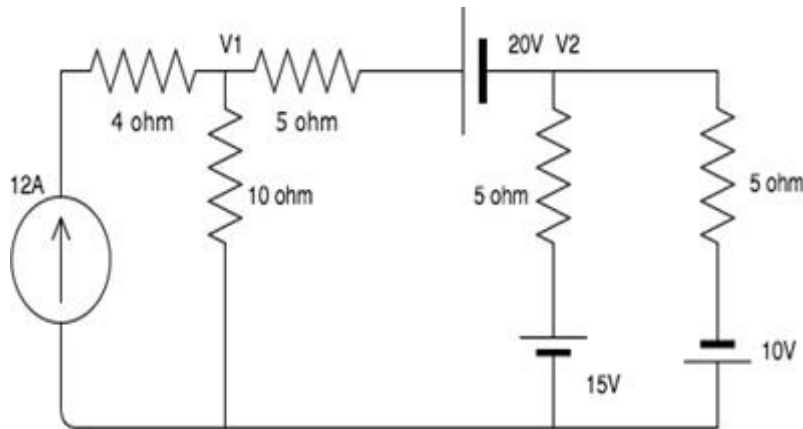


- A. 4
- B. 5
- C. 6
- D. 7

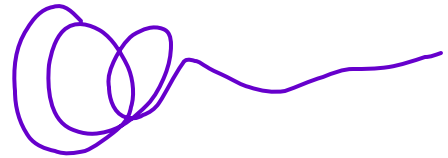
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38. Find the value of  $V1$  and  $V2$ .

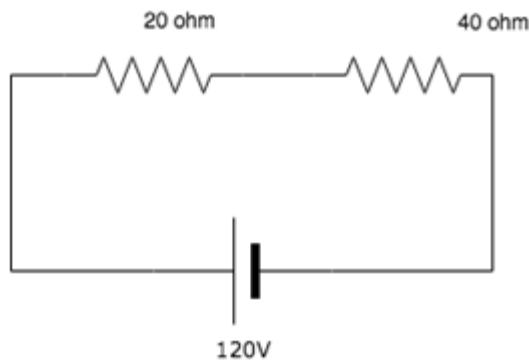




- A. 87.23V, 29.23V
- B. 23.32V, 46.45V
- C. 64.28V, 16.42V
- D. 56.32V, 78, 87V



39. Find the current in the circuit




- a) 1 A
- ☒ b) 2 A
- c) 3 A
- d) 4 A


40. In a series circuit, which of the parameters remain constant across all circuit elements such as resistor, capacitor and inductor etcetera?

- a) Voltage
- ☒ b) Current
- c) Both voltage and current
- d) Neither voltage nor current

41. If there are two bulbs connected in series and one blows out, what happens to the other bulb?

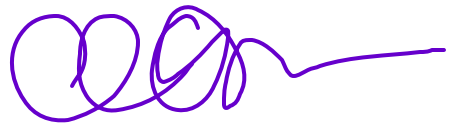
- a) The other bulb continues to glow with the same brightness
- b) The other bulb stops glowing
- c) The other bulb glows with increased brightness
- d) The other bulb also burns out

Case 1:  (b)

Case 2:  (a)

42. A voltage across a series resistor circuit is proportional to?

- a) The amount of time the circuit was on for
- b) The value of the resistance itself

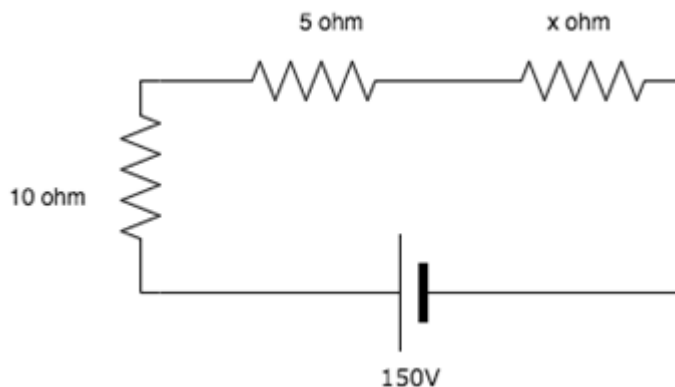


- c) The value of the other resistances in the circuit  
d) The power in the circuit
43. Many resistors connected in series will?
- ☒ a) Divide the voltage proportionally among all the resistors
  - b) Divide the current proportionally
  - c) Increase the source voltage in proportion to the values of the resistors
  - d) Reduce the power to zero
44. What is the voltage measured across a series short?
- a) Infinite
  - b) Zero
  - c) The value of the source voltage
  - d) Null
45. What happens to the current in the series circuit if the resistance is doubled?
- ☒ a) It becomes half its original value
  - b) It becomes double its original value
  - c) It becomes zero
  - d) It becomes infinity
46. What is the value of x if the current in the circuit is 5A?



$$V = IR(2)$$

$$I = \frac{V}{R} \times \frac{1}{2} = \frac{I_0}{2}$$



$$R = 15 + x$$

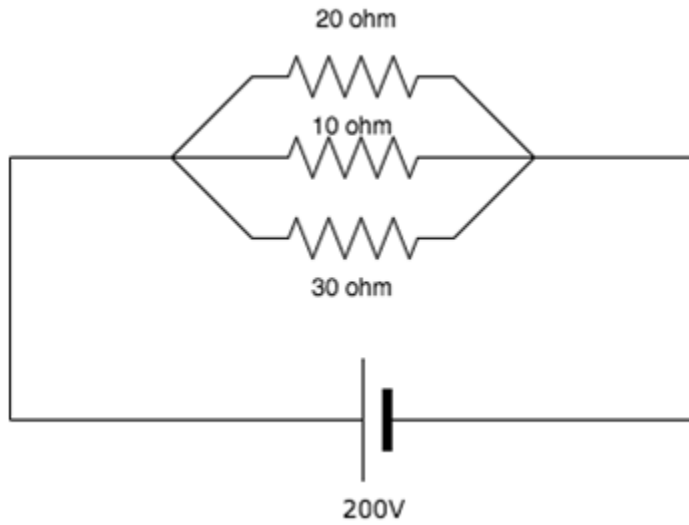
$$I = \frac{V}{R} = \frac{150}{15+x}$$

$$\Rightarrow 5(15+x) = 150$$

$$15 + x = 30$$

$$x = 15 \Omega$$

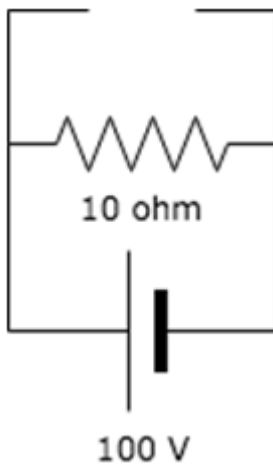
- ☒ a) 15 ohm
  - b) 25 ohm
  - c) 55 ohm
  - d) 75 ohm
47. If two bulbs are connected in parallel and one bulb blows out, what happens to the other bulb?
- a) The other bulb blows out as well
  - b) The other bulb continues to glow with the same brightness
  - ☒ c) The other bulb glows with increased brightness
  - d) The other bulb stops glowing
48. Calculate the current across the 20 ohm resistor



a) 20 A

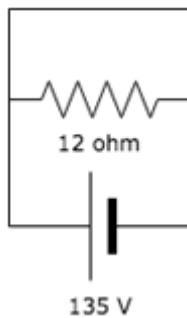
- b) 10 A
- c) 11.43 A
- d) 15 A

49. The voltage across the open circuit is?



- a) 100V
- b) Infinity
- c) 90V
- d) 0V

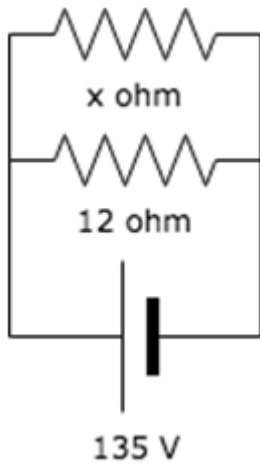
50. The voltage across the short is?



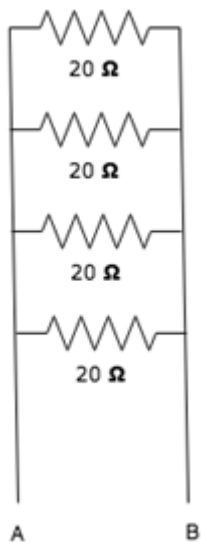
- a) 135V
- b) Infinity
- c) Zero

d) 11.25V

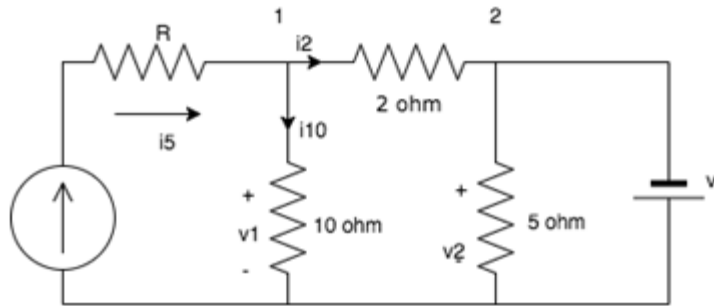
51. If the current through  $x$  ohm resistance in the circuit is 5A, find the value of  $x$ .



- a) 27 ohm  
b) 5 ohm  
c) 12 ohm  
d) 135 ohm
52. The currents in the three branches of a parallel circuit are 3A, 4A and 5A. What is the current leaving it?  
a) 0A  
b) Insufficient data provided  
c) The largest one among the three values  
d) 12A
53. The total resistance between A and B are?

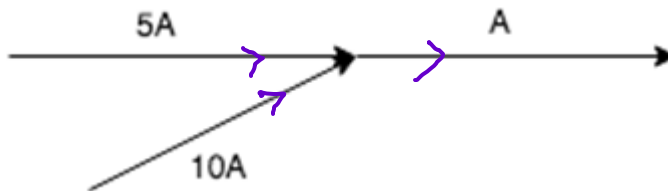


- a) 20 ohm  
b) 5 ohm  
c) 80 ohm  
d) 0 ohm
54. Find the value of  $v$  if  $v_1=20\text{V}$  and value of current source is 6A.



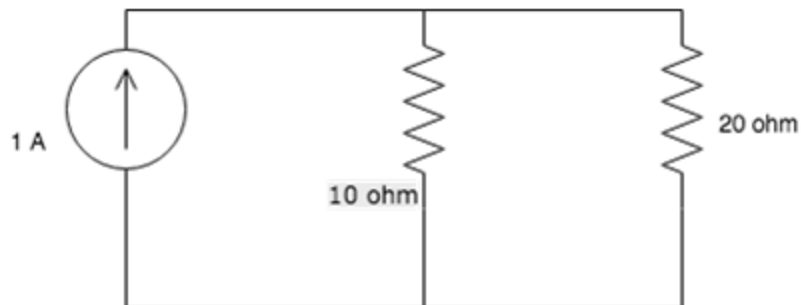
- a) 10V
- b) 12V
- c) 14V
- d) 16V

55. Calculate the current A.



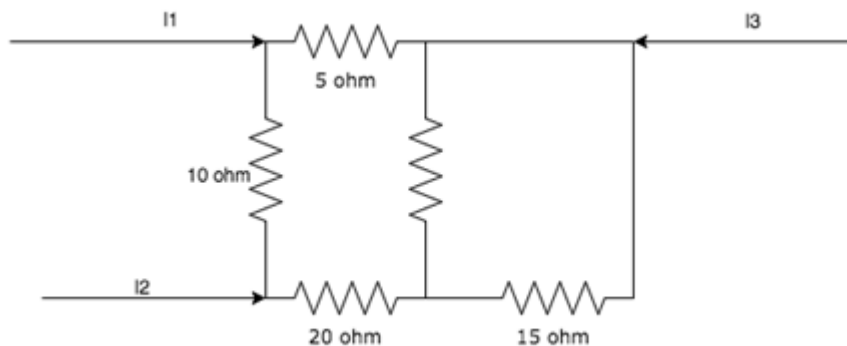
- a) 5A
- b) 10A
- c) 15A
- d) 20A

56. Calculate the current across the 20 ohm resistor.



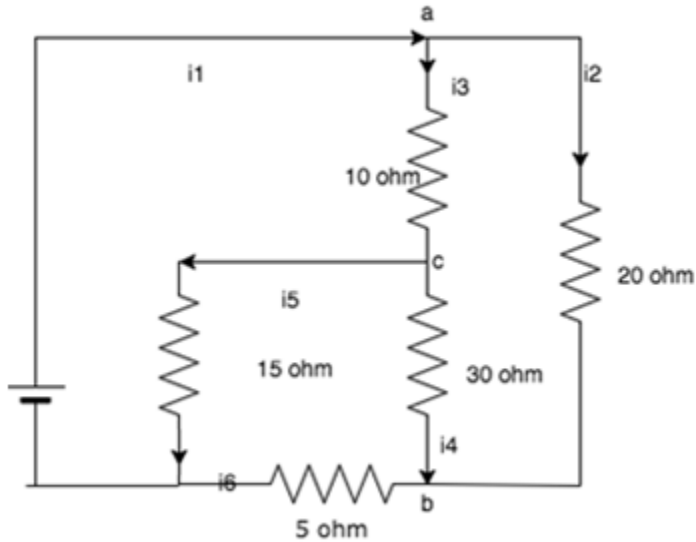
- a) 20A
- b) 1A
- c) 0.67A
- d) 0.33A

57. Calculate the value of  $I_3$ , if  $I_1 = 2A$  and  $I_2 = 3A$ .



- a) -5A
- b) 5A
- c) 1A
- d) -1A

58. Find the value of  $i_2$ ,  $i_4$  and  $i_5$  if  $i_1=3A$ ,  $i_3=1A$  and  $i_6=1A$ .



- a) 2,-1,2
- b) 4,-2,4
- c) 2,1,2
- d) 4,2,4

59. What is the value of current if a 50C charge flows in a conductor over a period of 5 seconds?

- a) 5A
- b) 10A
- c) 15A
- d) 20A

60. What is the value of current if a 50C charge flows in a conductor over a period of 5 seconds?

- a) 5A
- b) 10A
- c) 15A
- d) 20A

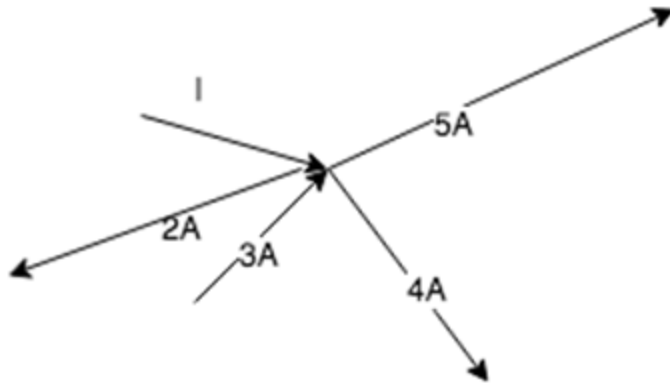
61. KCL is applied at \_\_\_\_\_

- a) Loop
- b) Node
- c) Both loop and node
- d) Neither loop nor node

62. KCL can be applied for \_\_\_\_\_

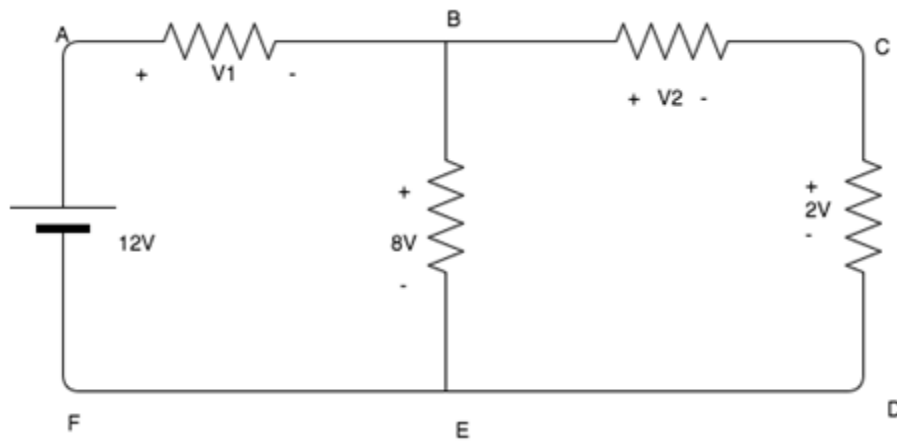
- a) Planar networks
- b) Non-planar networks
- c) Both planar and non-planar
- d) Neither planar nor non-planar

63. What is the value of the current I?



- a) 8A
- b) 7A
- c) 6A
- d) 5A

64. Calculate the value of  $V_1$  and  $V_2$ .

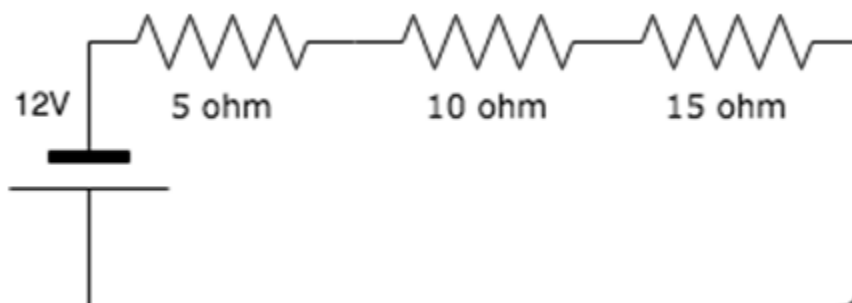


- a) 4V, 6V
- b) 5V, 6V
- c) 6V, 7V
- d) 7V, 8V

65. KVL deals with the conservation of?

- a) Mass
- b) Momentum
- c) Charge
- d) Energy

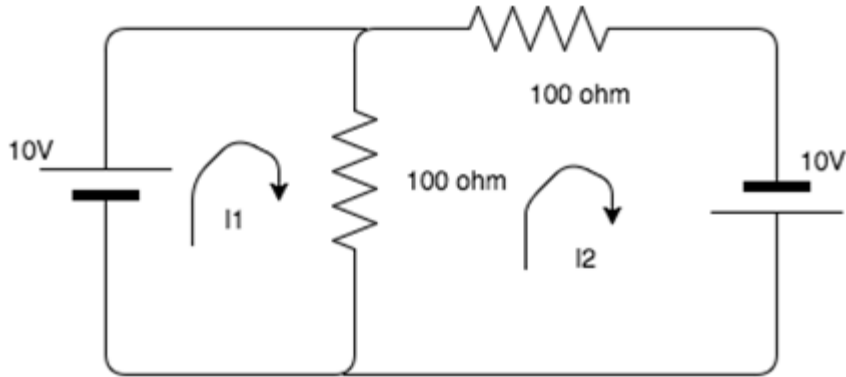
66. Calculate the voltage across the 10 ohm resistor.



- a) 12V

- b) 4V
- c) 10V
- d) 0V

67. Find the value of the currents  $I_1$  and  $I_2$ .



- a) 0.3, 0.1
- b) -0.1, -0.3
- c) -0.3, -0.1
- d) 0.1, 0.2

68. The sum of the voltages over any closed loop is equal to \_\_\_\_\_

- a) 0V
- b) Infinity
- c) 1V
- d) 2V

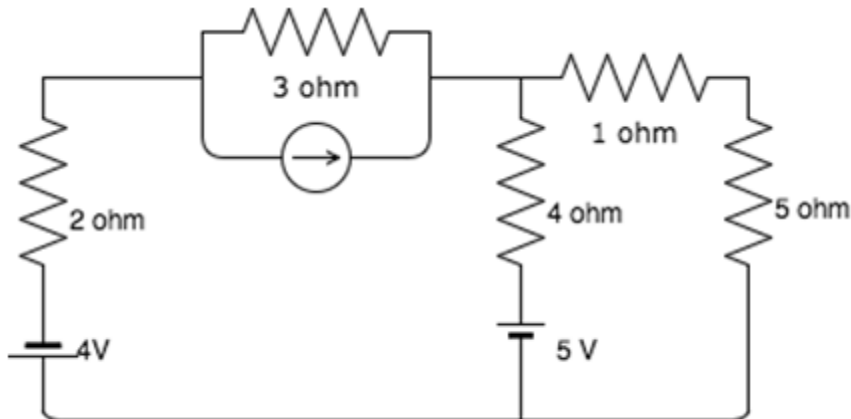
69. What is the basic law that has to be followed in order to analyze the circuit?

- a) Newton's laws
- b) Faraday's laws
- c) Ampere's laws
- d) Kirchhoff's law

70. Every \_\_\_\_\_ is a \_\_\_\_\_ but every \_\_\_\_\_ is not a \_\_\_\_\_

- a) Mesh, loop, loop, mesh
- b) Loop, mesh, mesh, loop
- c) Loop, mesh, loop, mesh
- d) Mesh, loop, mesh, loop

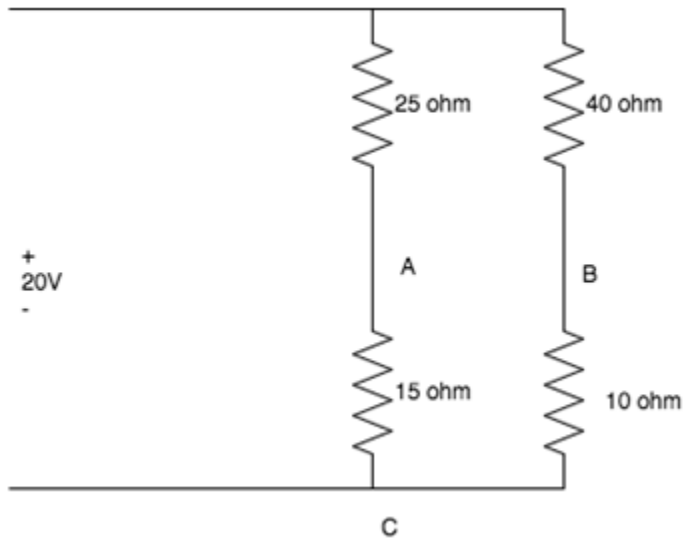
71. What is the voltage across the 5 ohm resistor if current source has current of  $17/3$  A?





- a) 2.32V
- b) 5.21V
- c) 6.67V
- d) 8.96V

72. Calculate  $V_{AB}$ .

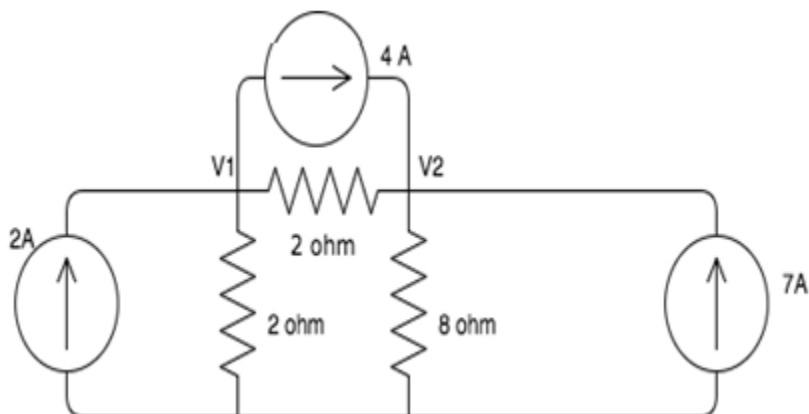


- a) 3.5V
- b) 12V
- c) 9.5V
- d) 6.5V

73. KVL is applied in \_\_\_\_\_

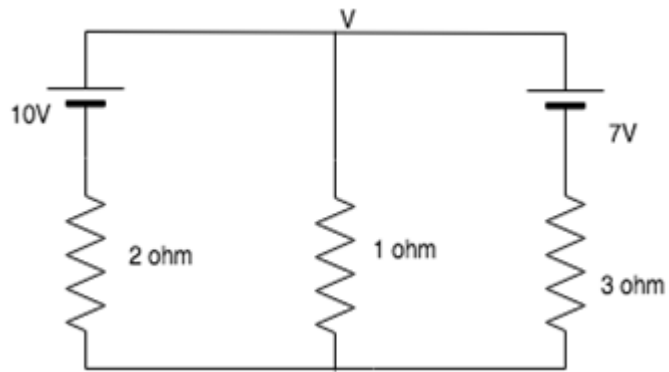
- a) Mesh analysis
- b) Nodal analysis
- c) Both mesh and nodal
- d) Neither mesh nor nodal

74. Calculate the node voltages  $V_1$  and  $V_2$ .



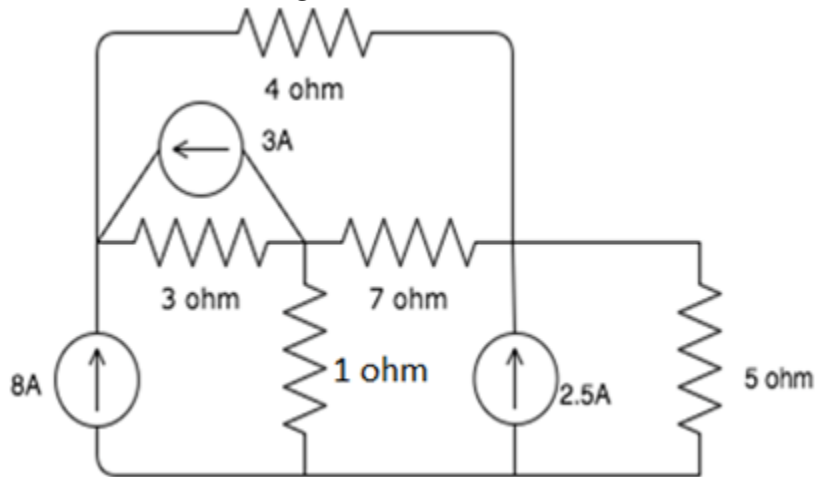
- a) 12V, 13V
- b) 26.67V, 11.33V
- c) 11.33V, 26.67V
- d) 13V, 12V

75. Find the node voltage  $V$ .



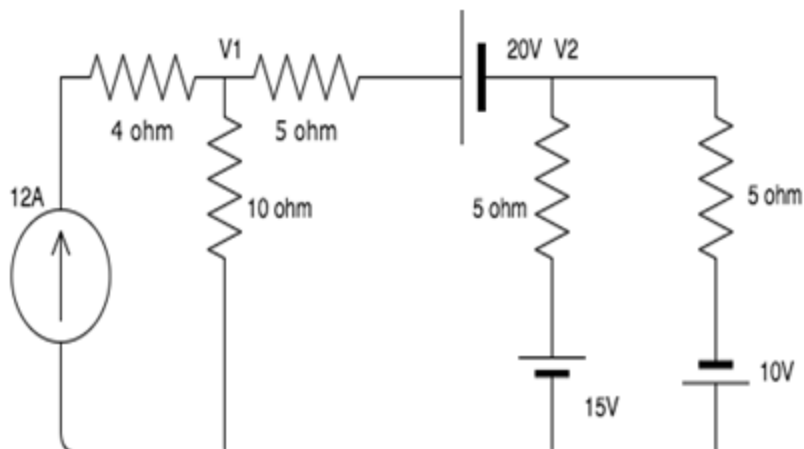
- a) 1V
- b) 2V
- c) 3V
- d) 4V

76. Calculate the node voltages.



- a) 30.77V, 7.52V, 18.82V
- b) 32.34V, 7.87V, 8.78V
- c) 34.34V, 8.99V, 8.67V
- d) 45.44V, 6.67V, 7.77V

77. Find the value of V1 and V2.



- a) 87.23V, 29.23V
- b) 23.32V, 46.45V

- c) 64.28V, 16.42V
- d) 56.32V, 78, 87V

78. Nodal analysis is generally used to determine\_\_\_\_\_

- a) Voltage
- b) Current
- c) Resistance
- d) Power

79. If there are 10 nodes in a circuit, how many equations do we get?

- a) 10
- b) 9
- c) 8
- d) 7

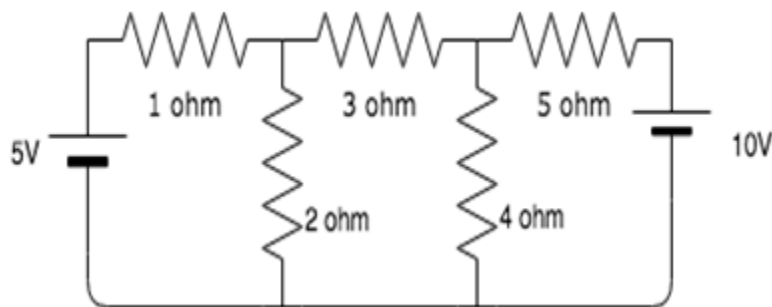
80. Nodal analysis can be applied for\_\_\_\_\_

- a) Planar networks
- b) Non-planar networks
- c) Both planar and non-planar networks
- d) Neither planar nor non-planar networks

81. How many nodes are taken as reference nodes in a nodal analysis?

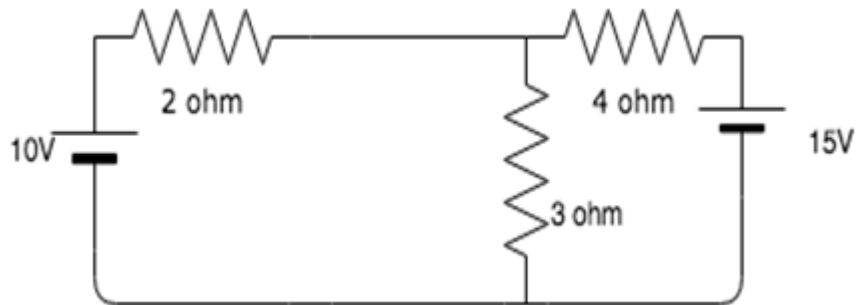
- a) 1
- b) 2
- c) 3
- d) 4

82. Find the value of the currents  $I_1$ ,  $I_2$  and  $I_3$  flowing clockwise in the first, second and third mesh respectively.



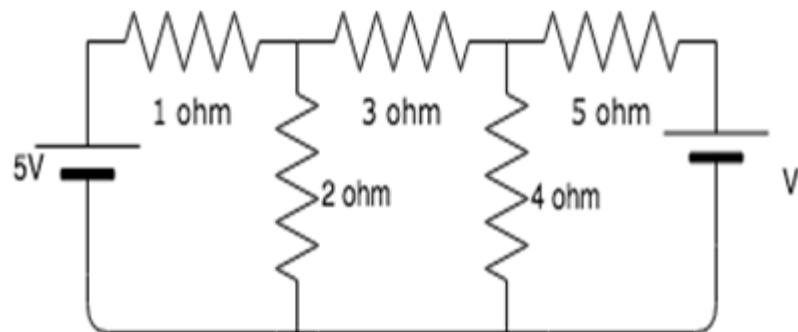
- a) 1.54A, -0.189A, -1.195A
- b) 2.34A, -3.53A, -2.23A
- c) 4.33A, 0.55A, 6.02A
- d) -1.18A, -1.17A, -1.16A

83. Find the value of the currents  $I_1$  and  $I_2$  flowing clockwise in the first and second mesh respectively.



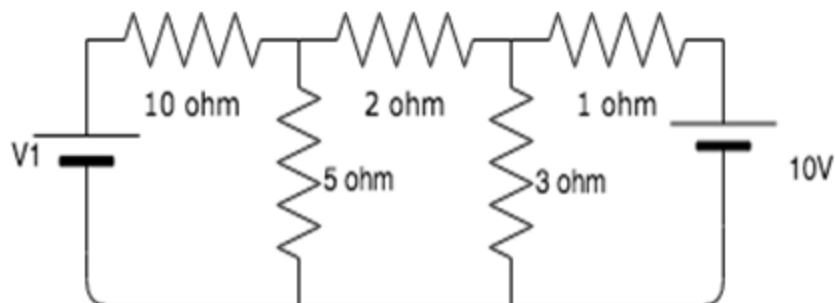
- a) 0.96A, 1.73A
- b) 0.96A, -1.73A
- c) -0.96A, 1.73A
- d) -0.96A, -1.73A

84. Find the value of  $V$  if the current in the 3 ohm resistor=0.



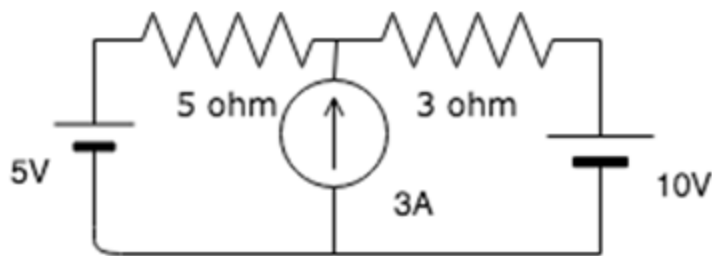
- a) 3.5V
- b) 6.5V
- c) 7.5V
- d) 8.5V

85. Find the value of  $V_1$  if the current through the 1 ohm resistor=0A.



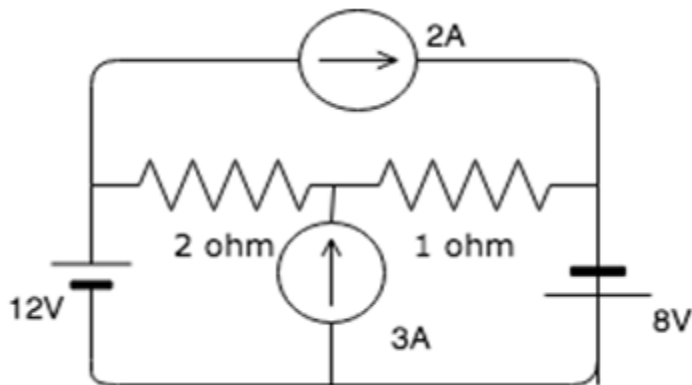
- a) 83.33V
- b) 78.89V
- c) 87.87V
- d) 33.33V

86. Calculate the mesh currents  $I_1$  and  $I_2$  flowing in the first and second meshes respectively.



- a) 1.75A, 1.25A
- b) 0.5A, 2.5A
- c) 2.3A, 0.3A
- d) 3.2A, 6.5A

87.  $I_1$  is the current flowing in the first mesh.  $I_2$  is the current flowing in the second mesh and  $I_3$  is the current flowing in the top mesh. If all three currents are flowing in the clockwise direction, find the value of  $I_1$ ,  $I_2$  and  $I_3$ .



- a) 7.67A, 10.67A, 2A
- b) 10.67A, 7.67A, 2A
- c) 7.67A, 8.67A, 2A
- d) 3.67A, 6.67A, 2A

88. Mesh analysis employs the method of \_\_\_\_\_

- a) KVL
- b) KCL
- c) Both KVL and KCL
- d) Neither KVL nor KCL

89. Mesh analysis is generally used to determine \_\_\_\_\_

- a) Voltage
- b) Current
- c) Resistance
- d) Power

90. Mesh analysis can be used for \_\_\_\_\_

- a) Planar circuits
- b) Non-planar circuits
- c) Both planar and non-planar circuits
- d) Neither planar nor non-planar circuits

91. In superposition theorem, when we consider the effect of one voltage source, all the other voltage sources are \_\_\_\_\_

- a) Shorted
- b) Opened
- c) Removed
- d) Undisturbed

92. In superposition theorem, when we consider the effect of one current source, all the other voltage sources are \_\_\_\_\_

- a) Shorted
- b) Opened
- c) Removed
- d) Undisturbed

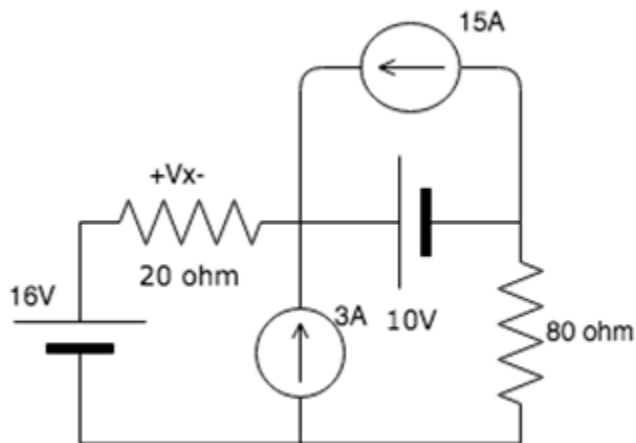
93. In superposition theorem, when we consider the effect of one voltage source, all the other current sources are \_\_\_\_\_

- a) Shorted
- b) Opened
- c) Removed
- d) Undisturbed

94. In superposition theorem, when we consider the effect of one current source, all the other current sources are \_\_\_\_\_

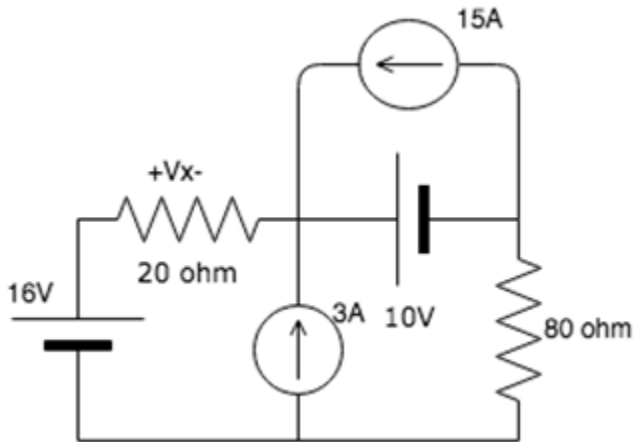
- a) Shorted
- b) Opened
- c) Removed
- d) Undisturbed

95. Find the value of  $V_x$  due to the 16V source.



- a) 4.2V
- b) 3.2V
- c) 2.3V
- d) 6.3V

96. Find  $V_x$  due to the 3A source.



- a) 56V
- b) 78V
- c) 38V
- d) 48V

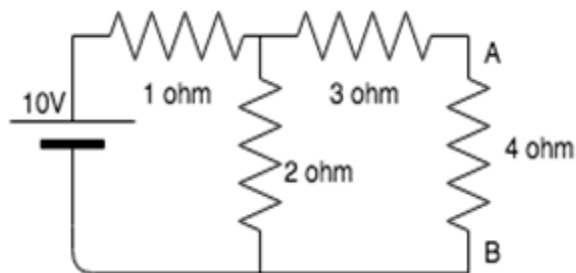
97. Superposition theorem is valid for \_\_\_\_\_

- a) Linear systems
- b) Non-linear systems
- c) Both linear and non-linear systems
- d) Neither linear nor non-linear systems

98. Superposition theorem does not work for \_\_\_\_\_

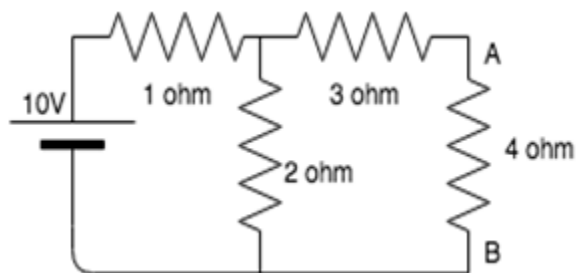
- a) Current
- b) Voltage
- c) Power
- d) Works for all: current, voltage and power

99. Calculate the Thevenin resistance across the terminal AB for the following circuit.



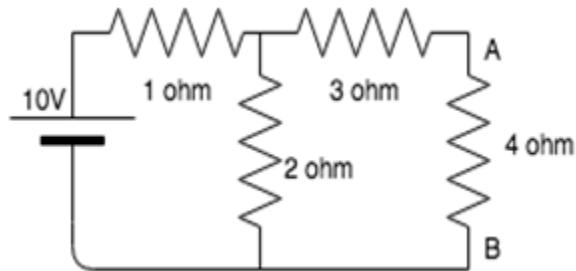
- a) 4.34 ohm
- b) 3.67 ohm
- c) 3.43 ohm
- d) 2.32 ohm

100. Calculate  $V_{th}$  for the given circuit.



- a) 5.54V
- b) 3.33V
- c) 6.67V
- d) 3.67V

101. Calculate the current across the 4 ohm resistor.



- a) 0.86A
- b) 1.23A
- c) 2.22A
- d) 0.67A

102. The Thevenin voltage is the \_\_\_\_\_

- a) Open circuit voltage
- b) Short circuit voltage
- c) Open circuit and short circuit voltage
- d) Neither open circuit nor short circuit voltage

103. Thevenin resistance is found by \_\_\_\_\_

- a) Shorting all voltage sources
- b) Opening all current sources
- c) Shorting all voltage sources and opening all current sources
- d) Opening all voltage sources and shorting all current sources

104. Thevenin's theorem is true for \_\_\_\_\_

- a) Linear networks
- b) Non-Linear networks
- c) Both linear networks and nonlinear networks
- d) Neither linear networks nor non-linear networks

105. In Thevenin's theorem  $V_{th}$  is \_\_\_\_\_

- a) Sum of two voltage sources
- b) A single voltage source
- c) Infinite voltage sources
- d) 0

106.  $V_{th}$  is found across the \_\_\_\_\_ terminals of the network.

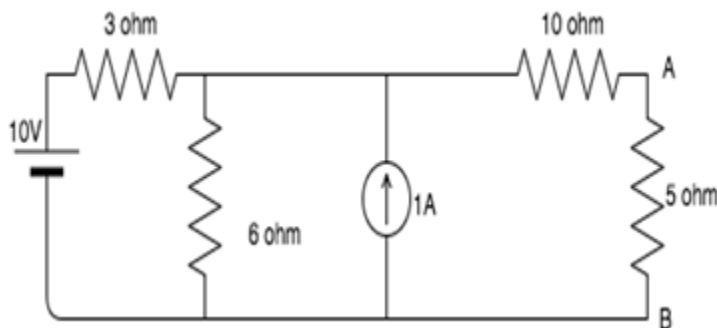
- a) Input
- b) Output
- c) Neither input nor output
- d) Either input or output

107. Which of the following is also known as the dual of Thevenin's theorem?

- a) Norton's theorem
- b) Superposition theorem



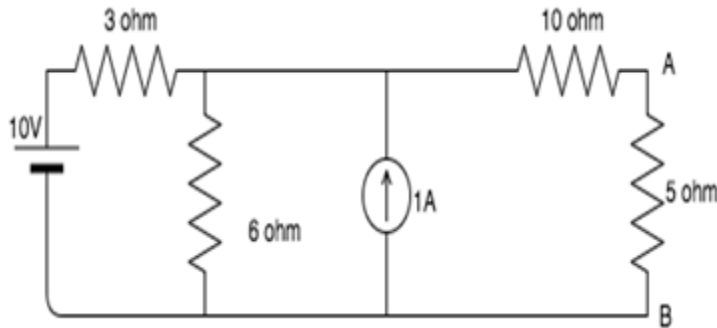
- c) Maximum power transfer theorem
  - d) Millman's theorem
108. Can we use Thevenin's theorem on a circuit containing a BJT?
- a) Yes
  - b) No
  - c) Depends on the BJT
  - d) Insufficient data provided
109. The Norton current is the \_\_\_\_\_
- a) Short circuit current
  - b) Open circuit current
  - c) Open circuit and short circuit current
  - d) Neither open circuit nor short circuit current
110. Norton resistance is found by?
- a) Shorting all voltage sources
  - b) Opening all current sources
  - c) Shorting all voltage sources and opening all current sources
  - d) Opening all voltage sources and shorting all current sources
111. Norton's theorem is true for \_\_\_\_\_
- a) Linear networks
  - b) Non-Linear networks
  - c) Both linear networks and nonlinear networks
  - d) Neither linear networks nor non-linear networks
112. In Norton's theorem  $I_{sc}$  is \_\_\_\_\_
- a) Sum of two current sources
  - b) A single current source
  - c) Infinite current sources
  - d) 0
113. Can we use Norton's theorem on a circuit containing a BJT?
- a) Yes
  - b) No
  - c) Depends on the BJT
  - d) Insufficient data provided
114. Calculate the Norton resistance for the following circuit if 5 ohm is the load resistance.



- a) 10 ohm
- b) 11 ohm
- c) 12 ohm

d) 13 ohm

115. Calculate the short circuit current is the 5 ohm resistor is the load resistance.



a) 0.72A

b) 0.32A

c) 0.83A

d) 0.67A

116. A voltage source connected in series with a resistor can be converted to a?

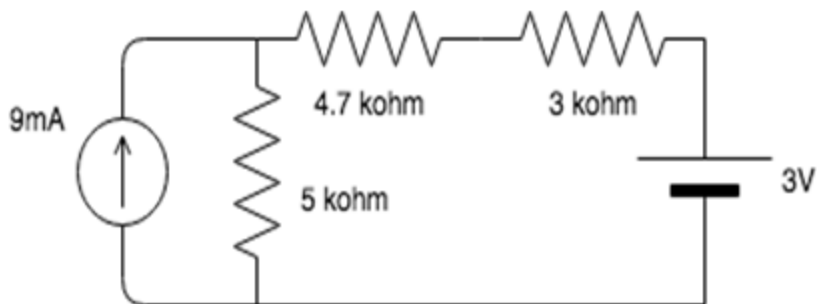
a) Current source in series with a resistor

b) Current source in parallel with a resistor

c) Voltage source in parallel with a resistor

d) Cannot be modified

117. Calculate the total current in the circuit.



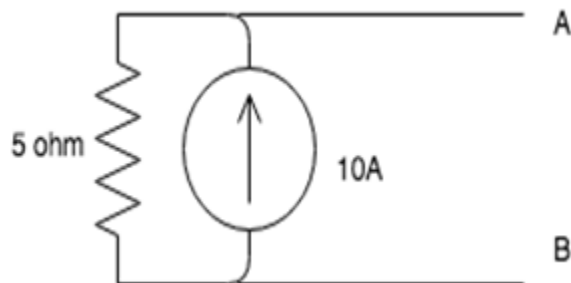
a) 2.3mA

b) 4.3mA

c) 3.3mA

d) 1.3mA

118. Find the value of voltage once source transformation is applied to the circuit.



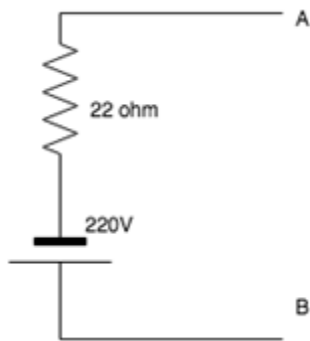
a) 10V

b) 30V

c) 50V

d) 70V

119. What will the value of the current be once source transformation is applied to the circuit?



- a) 10A
- b) 20A
- c) 30A
- d) 40A

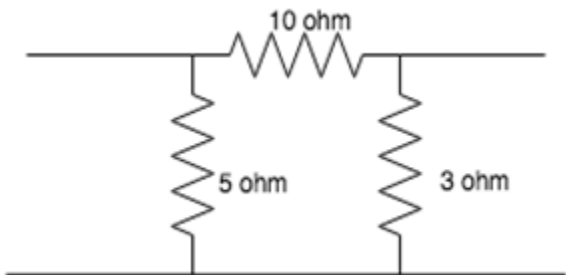
120. A source transformation is\_\_\_\_\_

- a) Unilateral
- b) Bilateral
- c) Unique
- d) Cannot be determined

121. If there are 3 10V sources connected in parallel then on source transformation\_\_\_\_\_

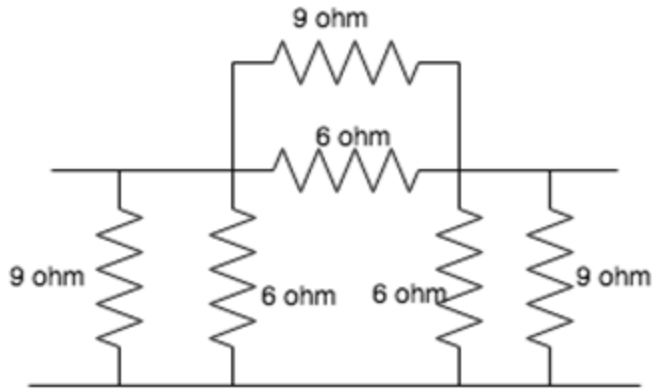
- a) The effect of all the sources is considered
- b) The effect of only one source is considered
- c) The effect of none of the sources is considered
- d) The effect of only 2 sources is considered.

122. The value of the 3 resistances when connected in star connection is\_\_\_\_\_



- a) 2.32ohm, 1.22ohm, 4.54ohm
- b) 3.55ohm, 4.33ohm, 5.67ohm
- c) 2.78ohm, 1.67ohm, 0.83ohm
- d) 4.53ohm, 6.66ohm, 1.23ohm

123. Find the equivalent star network.

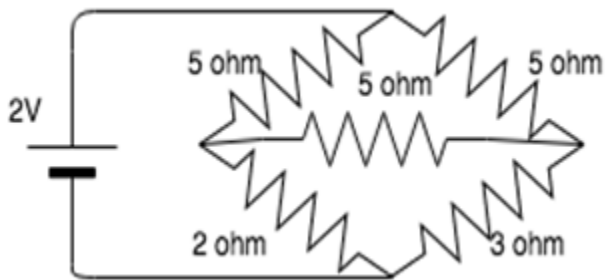


- a) 2.3ohm, 2.3ohm, 2.3ohm
- b) 1.2ohm, 1.2ohm, 1.2ohm
- c) 3.3ohm, 3.3ohm, 3.3ohm
- d) 4.5ohm, 4.5ohm, 4.5ohm

124. Star connection is also known as \_\_\_\_\_

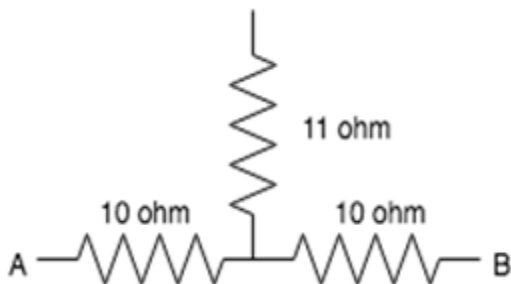
- a) Y-connection
- b) Mesh connection
- c) Either Y-connection or mesh connection
- d) Neither Y-connection nor mesh connection

125. Find the current in the circuit.



- a) 0.54A
- b) 0.65A
- c) 0.67A
- d) 0.87A

126. Find the equivalent resistance between A and B.



- a) 32ohm
- b) 31ohm
- c) 30ohm
- d) 29ohm

127. Delta connection is also known as \_\_\_\_\_

- a) Y-connection
- b) Mesh connection
- c) Either Y-connection or mesh connection
- d) Neither Y-connection nor mesh connection

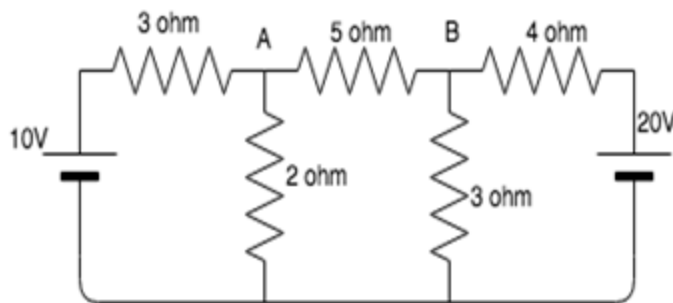
128. The maximum power drawn from source depends on \_\_\_\_\_

- a) Value of source resistance
- b) Value of load resistance
- c) Both source and load resistance
- d) Neither source or load resistance

129. The maximum power is delivered to a circuit when source resistance is \_\_\_\_\_ load resistance.

- a) Greater than
- b) Equal to
- c) Less than
- d) Greater than or equal to

130. Calculate the value of  $R_L$  across A and B.



- a) 3.45ohm
- b) 2.91ohm
- c) 6.34ohm
- d) 1.54ohm

131. Does maximum power transfer imply maximum efficiency?

- a) Yes
- b) No
- c) Sometimes
- d) Cannot be determined

132. Name some devices where maximum power has to be transferred to the load rather than maximum efficiency.

- a) Amplifiers
- b) Communication circuits
- c) Both amplifiers and communication circuits
- d) Neither amplifiers nor communication circuits