Unit 1 MCQ Solutions

ECE-131

MCQ 1

The polarity of voltage drop across a resistor is determined by

A. The value of the resistor
B. The value of the current through resistor
C. **The direction of the current through resistor**
D. The polarity of the source

MCQ 2

If 110 V is applied across 220 V, 100 W bulb, the power consumed by it will be

A. 100 W
B. 50 W
C. 25 W
D. 12.5 W

MCQ 3

A resistance of 10 Ohm is connected across a supply of 200 V. When another resistance of R ohms is connected in parallel with the above 10 Ohm resistor, the current drawn from the supply doubles. The value of R is

A. 5 Ohm

B. **10 Ohm**

C. 20 Ohm

D. 22 Ohm

MCQ 4

The three resistance each of R ohms are connected in star. Its equivalent delta will comprise three resistance each of value

A. 3R

B. 2R

C. R/2

D. R/3

MCQ 5

The three resistance each of R ohms are connected in delta. Its equivalent star will comprise three resistance each of value

A. 3R

B. 2R

C. R/2

D. **R/3**

MCQ 6

Three resistors of 4 Ohm, 6 Ohm and 9 Ohm are connected in parallel in a network. Maximum power will be consumed by

A. 4 Ohm
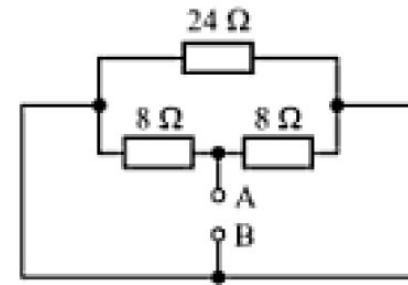
B. 6 Ohm

C. 9 Ohm

D. All of the resistors

MCQ 7

A current of 10 A enters a parallel combination of two resistance of 2 Ohm and 3 Ohm, Then the currents through these resistance will be

A. 4 A, 6 A
B. **6 A, 4 A**
C. 2 A, 8 A
D. 5 A, 5 A

MCQ 8

Find the equivalent resistance between points A and B in the network

A. 3.4 Ohm

B. 4 Ohm

C. 8 Ohm

D. 40 Ohm

MCQ 9

Energy Stored in capacitor given by

A. C^2V

B. $C^2V/2$

C. **$Q^2/2C$**

D. CV

MCQ 10

If the voltage across the capacitor is increase by 2V, then the charge on the places will

A. Increase by 0.5 C

B. Decrease by 0.5 C

C. Decrease by 2 C

D. **Increase by 2 C**

MCQ 11
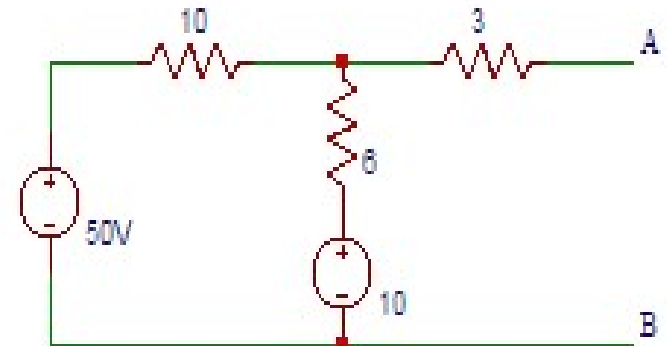
The number of equation required to analyze a given network by loop current method is equal to

A. The number of independent loops

B. The number of nodes

C. The number of branches

D. **Number of nodes minus one (N-1)**

MCQ 12

Find the equivalent thevenin's resistance between terminals A and B in the circuit
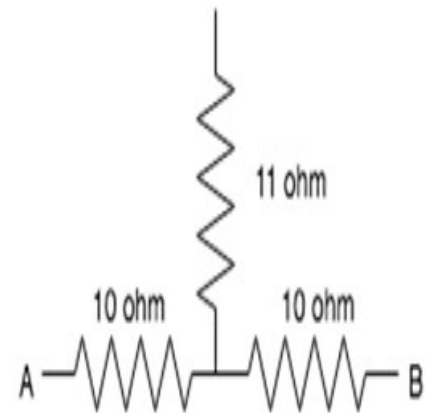
A. 6 V

B. 6.25 V

C. 6.5 V

D. 6.75 V

MCQ 13

Which of the following theorems is applicable for both linear and nonlinear circuits?

A. Superposition

B. Thevenin

C. Norton

D. **None of these**

MCQ 14

Find the equivalent resistance between A and B.

A. 32 Ohm

B. 31 Ohm

C. 30 Ohm

D. 29 Ohm

MCQ 15

Find the voltage across 2Ω resistor due to 20V source in the circuit shown below .

A. **1.5 V**

B. 1 V

C. 2 V

D. 2.5 V