28 Lecture - PHY101

Important Mcqs

In a simple circuit consisting of a resistor and a battery, what happens to the current if the resistance is doubled?

a) The current doubles

b) The current is halved

c) The current remains the same

d) The current becomes zero

Answer: b) The current is halved

What is the unit of electric current?

a) Joule

b) Coulomb

c) Watt

d) Ampere

Answer: d) Ampere

In a parallel circuit, what happens to the total resistance when additional resistors are added?

a) The total resistance decreases

b) The total resistance increases

c) The total resistance remains the same

d) The total resistance becomes zero

Answer: a) The total resistance decreases

What is the relationship between voltage, current, and resistance in a circuit?

a) V = IR

b) I = VR

c) R = IV

d) V = RI

Answer: a) V = IR

In a circuit with a battery and a single resistor, what happens to the current if the voltage of the battery is increased?

a) The current increases

b) The current decreases

c) The current remains the same

d) The current becomes zero

Answer: a) The current increases

What is the role of a capacitor in a circuit?

a) To store energy in the form of electric charge

b) To increase the resistance of the circuit

c) To reduce the resistance of the circuit

d) To act as a switch

Answer: a) To store energy in the form of electric charge

In a circuit with multiple resistors in series, what happens to the total resistance when the resistors are replaced with ones of lower resistance?

a) The total resistance increases

b) The total resistance decreases

c) The total resistance remains the same

d) The total resistance becomes zero

Answer: b) The total resistance decreases

What is the unit of electric potential difference?

a) Volt

b) Joule

c) Coulomb

d) Watt

Answer: a) Volt

In a series circuit, what happens to the current as it passes through each component?

a) The current increases

b) The current decreases

c) The current remains the same

d) The current becomes zero

Answer: b) The current decreases

What is the relationship between power, voltage, and current in a circuit?

a) P = VI

b) V = PI

c) I = PV

d) P = IV

Answer: a) P = VI