

32 Lecture - PHY301

Important Subjective

What is DC resistance?

Answer: DC resistance, also known as static resistance, is the resistance exhibited by a component when a constant DC voltage is applied to it.

How is resistance measured?

Answer: Resistance is measured in units called ohms (Ω) using a multimeter or through the use of color codes on resistors.

What is Ohm's Law?

Answer: Ohm's Law is a mathematical equation that describes the relationship between current, voltage, and resistance in a circuit. It states that current (I) is directly proportional to voltage (V) and inversely proportional to resistance (R).

What is the unit of resistance?

Answer: The unit of resistance is the ohm (Ω).

What is the difference between DC and AC resistance?

Answer: DC resistance refers to the resistance exhibited by a component when a constant DC voltage is applied, while AC resistance refers to the resistance exhibited when an AC voltage is applied.

What is a resistor?

Answer: A resistor is a passive electronic component that resists the flow of current and is commonly used in electronic circuits to limit current, divide voltage, and provide biasing.

What is the color code on a resistor?

Answer: The color code on a resistor is a system of bands that indicate the resistance value of the resistor.

What is the formula for calculating resistance using Ohm's Law?

Answer: The formula for calculating resistance using Ohm's Law is $R = V/I$, where R is resistance in ohms, V is voltage in volts, and I is current in amperes.

How does resistance affect current flow in a circuit?

Answer: The higher the resistance, the lower the current flow, and the lower the resistance, the higher the current flow.

Why is understanding static resistance important in electronic circuits?

Answer: Understanding static resistance is important in electronic circuits because it determines the current flow through the circuit, which in turn affects the performance of the circuit.