

35 Lecture - PHY301

Important Subjective

What is load voltage?

Answer: Load voltage refers to the voltage that is present across a load, which is typically a resistor, capacitor, or inductor.

What is load current?

Answer: Load current is the current that flows through a load, which is determined by the resistance of the load and the voltage across it.

What is Ohm's Law?

Answer: Ohm's Law states that the voltage across a resistor is proportional to the current flowing through it. Mathematically, this can be expressed as $V = IR$, where V is the voltage across the resistor, I is the current flowing through it, and R is the resistance of the resistor.

How is power consumed by a load calculated?

Answer: The power consumed by a load can be calculated using the equation $P = IV$, where P is the power consumed, I is the current flowing through the load, and V is the voltage across the load.

What is a resistive load?

Answer: A resistive load is a device or component that resists the flow of electrical current and produces heat or light, such as incandescent light bulbs and heating elements.

What is a reactive load?

Answer: A reactive load is a device or component that stores and releases electrical energy, such as capacitors and inductors.

What is the phase difference between load voltage and current for a capacitive load?

Answer: For capacitive loads, the load voltage leads the load current by 90 degrees.

What is the phase difference between load voltage and current for an inductive load?

Answer: For inductive loads, the load current leads the load voltage by 90 degrees.

What are multimeters used for?

Answer: Multimeters are devices that measure voltage, current, and resistance, and are used to troubleshoot circuits and diagnose problems.

What are oscilloscopes used for?

Answer: Oscilloscopes are devices that display the voltage waveform over time and are used to measure the characteristics of electrical signals, such as their frequency and amplitude.