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Final Year EXTC

Image 30:



Name of the Equipment: General Electric's AC Kilowatt Meter

About the instrument:

The General Electric AC Kilowatt Meter is a device used to measure the amount of electrical power being consumed by an electrical circuit. This power is measured in kilowatts (kW), which is a standard unit of power.

This meter was commonly used in the mid-20th century, particularly in industries and large buildings where keeping track of energy use was important. By measuring how much power was being used, people could make sure that electrical systems were working properly and not using more energy than necessary.

Working and Steps to use:

- **Measuring Power:** The meter is connected to an electrical circuit, and it shows how much power is being used in real-time. The measurement is displayed on an analog dial with a pointer that moves across a scale to show the kilowatts being consumed.

- **Voltage Settings:** The meter has different settings for different voltage levels, such as 150V or 300V. This makes it flexible and able to be used in various types of electrical systems, whether in a factory or a large office building.

- **Analog Display:** The meter's display is easy to read, with a simple pointer that shows the power level on a scale. This kind of display was standard before digital screens became common.

1. Setting Up:

- Choose the correct voltage setting on the meter.
- Connect the meter to the electrical circuit you want to measure.

2. Taking a Reading:

- Once connected, the meter will start showing the power being used in the circuit.
- Look at the pointer on the scale to see the kilowatt reading.

3. Interpreting the Reading:

- The reading tells you how much power is being used at that moment. For example, if the meter shows 10 kW, the circuit is using 10 kilowatts of power.

4. Safety Tips:

- Make sure you're using the meter with the right voltage setting to avoid damaging the device.

- Handle the meter carefully and store it in a safe place when not in use.

Even though modern digital meters are more common now, this type of meter played a key role in the history of electrical measurement. In simple terms, this meter helped people keep track of how much electricity they were using, which was important for making sure everything was running smoothly and efficiently.