# Electrical GK Quiz -1

## 1 What is the unit of electric current?

(a) Volt

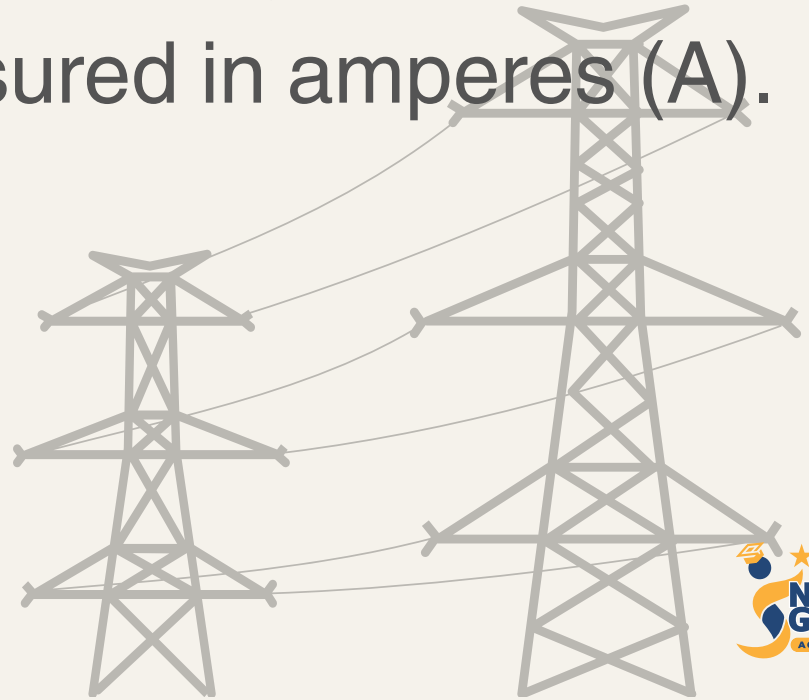
(b) Ampere

(c) Ohm

(d) Watt

**Ans: B**

**Explanation:**
Electric current is measured in amperes (A).



# Electrical GK Quiz -1

**2 Which law states that current is directly proportional to voltage?**

(a) Faraday’s Law

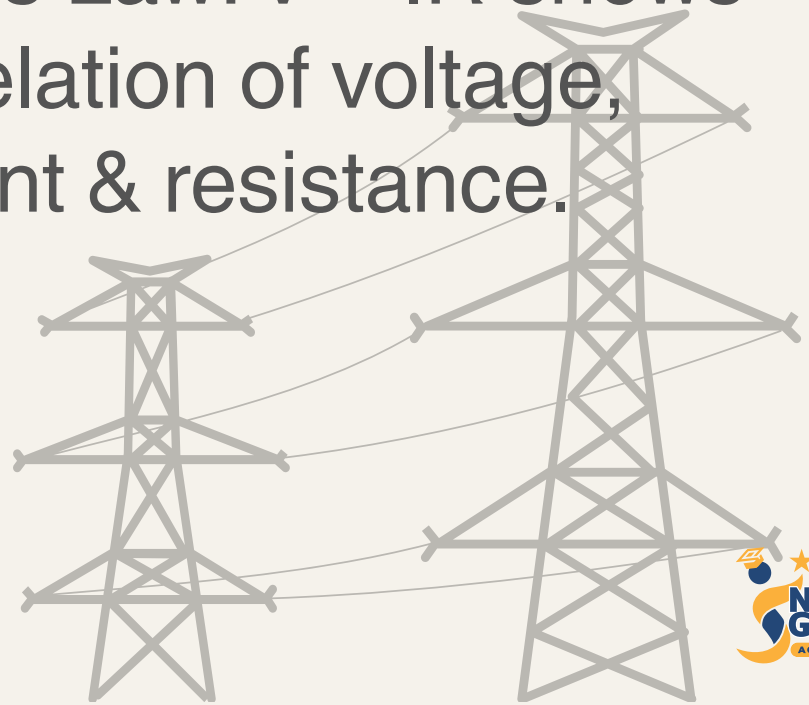
(b) Ohm’s Law

(c) Coulomb’s Law

(d) Lenz’s Law

**Ans: B**

**Explanation:**
Ohm’s Law: V = IR shows the relation of voltage, current & resistance.



# Electrical GK Quiz -1

## 3 The SI unit of resistance is:

(a) Henry

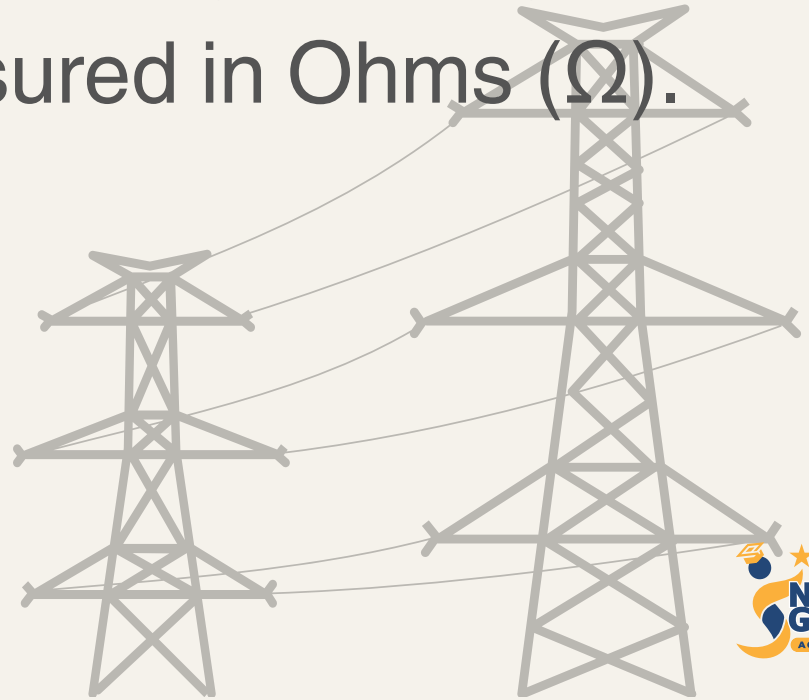
(b) Siemens

(c) Ohm

(d) Joule

**Ans: C**

**Explanation:**
Electrical resistance is measured in Ohms (Ω).



# Electrical GK Quiz -1

## 4 Which material is commonly used as a conductor?

(a) Wood

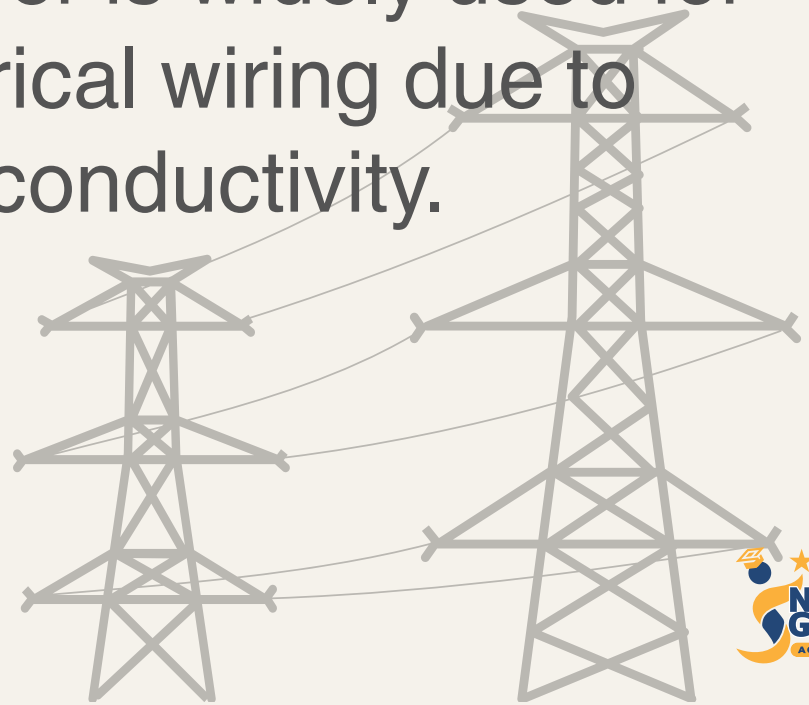
(b) Rubber

(c) Copper

(d) Glass

**Ans: C**

**Explanation:**
Copper is widely used for electrical wiring due to high conductivity.



# Electrical GK Quiz -1

## 5 The device that converts AC to DC is called:

(a) Transformer

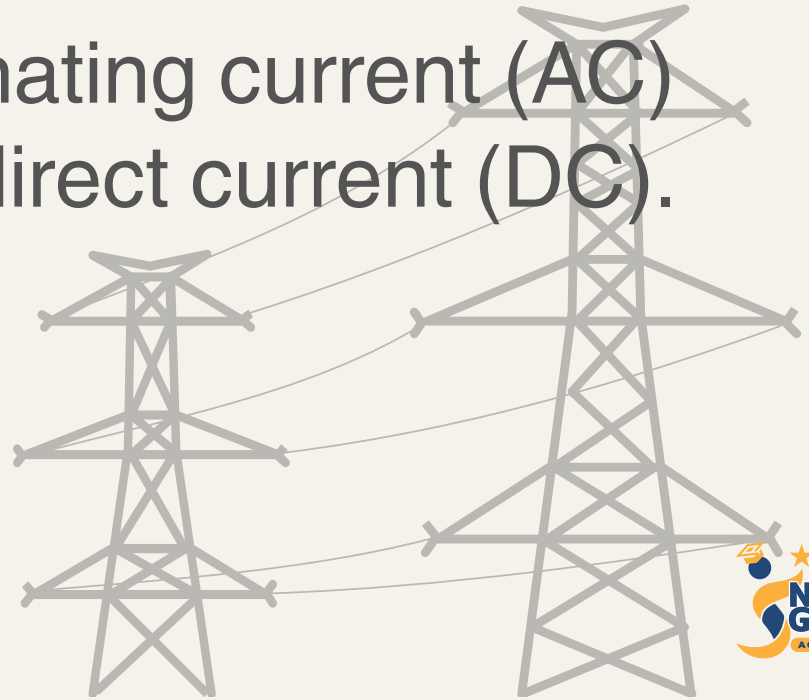
(b) Rectifier

(c) Inductor

(d) Oscillator

**Ans: B**

**Explanation:**
Rectifiers convert alternating current (AC) into direct current (DC).



# Electrical GK Quiz -1

## 6 Which type of current is supplied to households?

(a) Direct Current

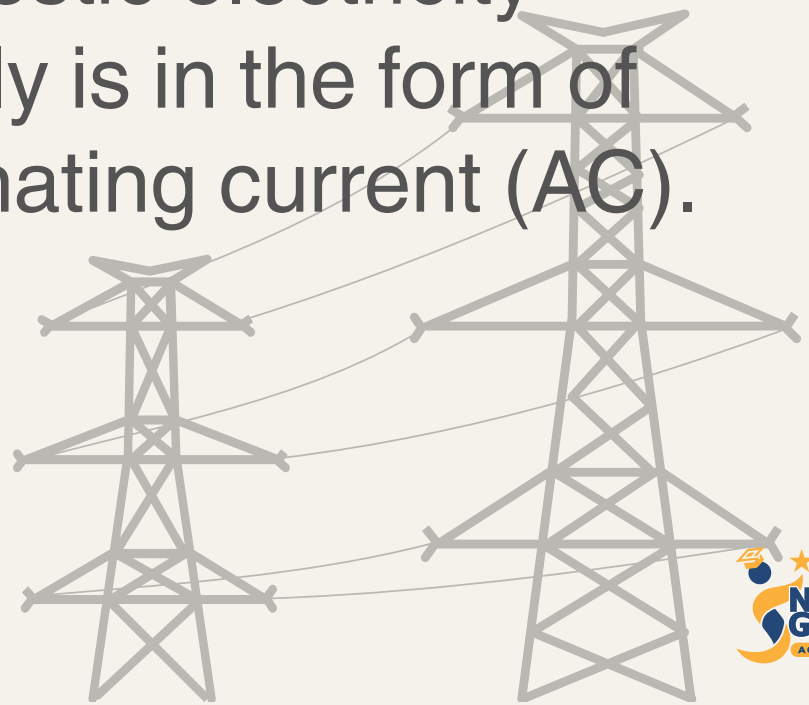
(b) Alternating Current

(c) Pulsating Current

(d) Constant Current

**Ans: B**

**Explanation:**
Domestic electricity supply is in the form of alternating current (AC).



# Electrical GK Quiz -1

## 7 The power factor of a pure resistor is:

(a) 0

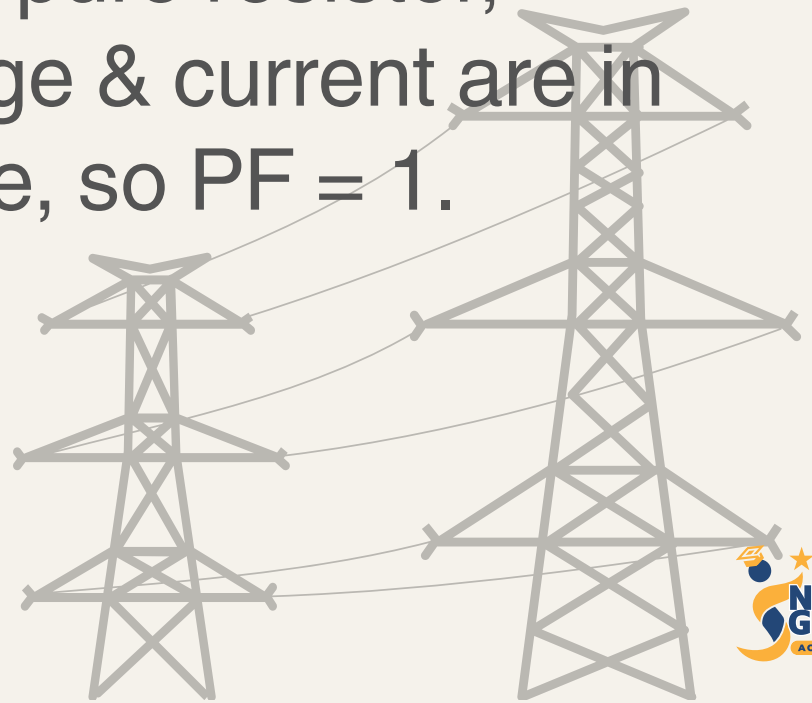
(b) 1

(c) -1

(d) 0.5

**Ans: B**

**Explanation:**
For a pure resistor, voltage & current are in phase, so PF = 1.



# Electrical GK Quiz -1

**8 Which instrument measures electric potential difference?**

(a) Ammeter

(b) Voltmeter

(c) Wattmeter

(d) Ohmmeter

**Ans: B**

**Explanation:**
A voltmeter is used to measure potential difference between two points.

# Electrical GK Quiz -1

## 9 Transformer works on which principle?

(a) Mutual Induction

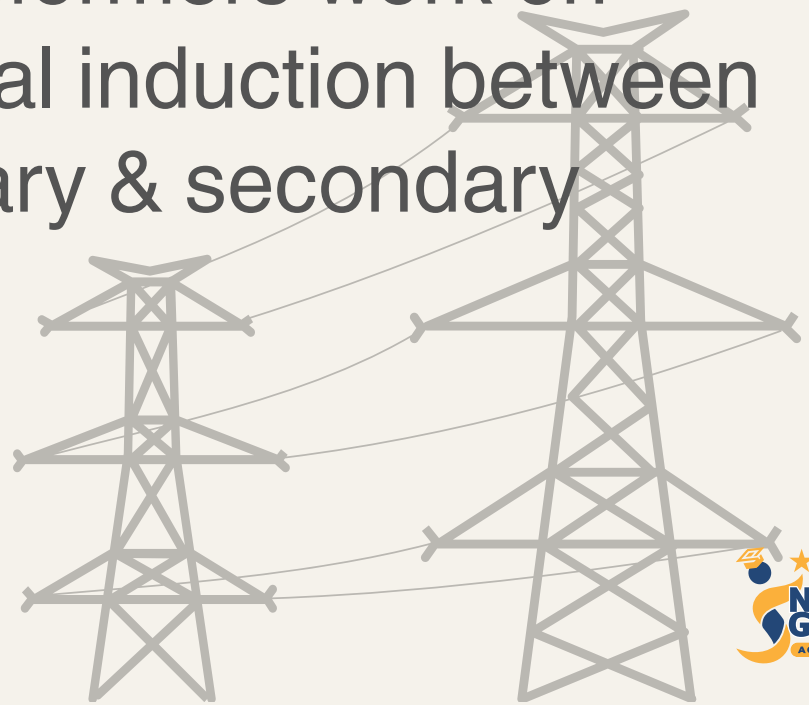
(b) Self Induction

(c) Electrostatics

(d) Ohm’s Law

**Ans: A**

**Explanation:**
Transformers work on mutual induction between primary & secondary coils.



# Electrical GK Quiz -1

## 10 The frequency of AC supply in India is:

(a) 50 Hz

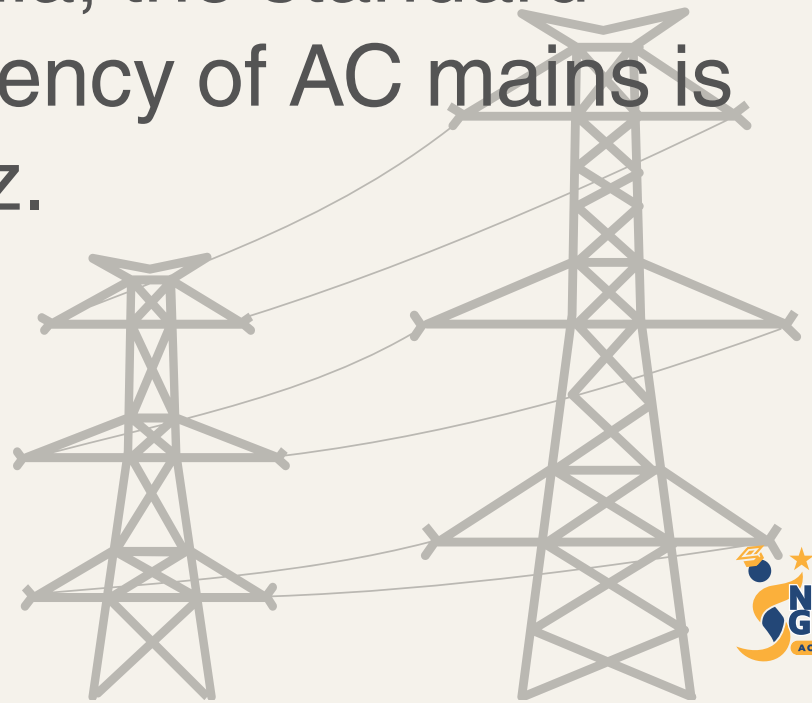
(b) 60 Hz

(c) 100 Hz

(d) 25 Hz

**Ans: A**

**Explanation:**
In India, the standard frequency of AC mains is 50 Hz.



# Electrical GK Quiz -1

## 11 What is the unit of electric power?

(a) Watt

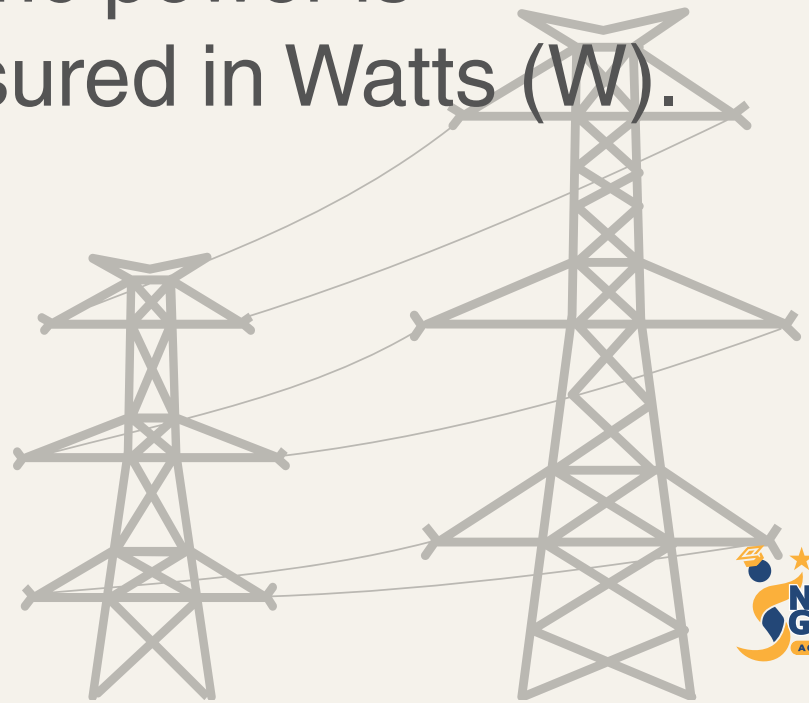
(b) Ampere

(c) Joule

(d) Ohm

**Ans: A**

**Explanation:**
Electric power is measured in Watts (W).



# Electrical GK Quiz -1

## 12 Which law explains electromagnetic induction?

(a) Lenz’s Law

(b) Faraday’s Law

(c) Kirchhoff’s Law

(d) Ampere’s Law

**Ans: B**

**Explanation:**
Faraday’s law states that EMF is induced by change in magnetic flux.

# Electrical GK Quiz -1

## 13 The color of earth wire is:

(a) Red

(b) Green

(c) Yellow

(d) Blue

**Ans: B**

**Explanation:**
The earth wire is always green for safety reasons.

# Electrical GK Quiz -1

## 14 Which instrument measures electric current?

(a) Voltmeter

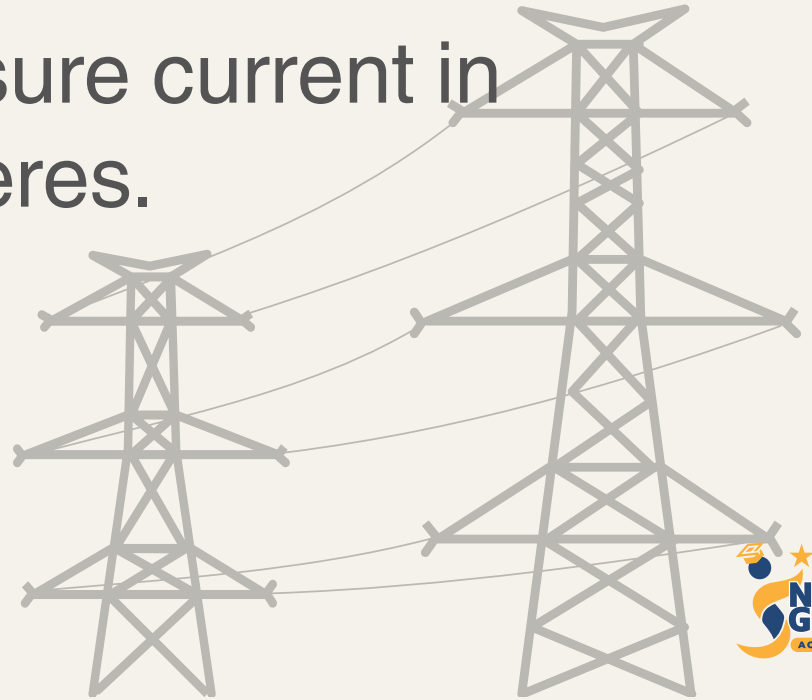
(b) Ammeter

(c) Wattmeter

(d) Multimeter

**Ans: B**

**Explanation:**
Ammeter is used to measure current in amperes.



# Electrical GK Quiz -1

## 15 The SI unit of capacitance is:

(a) Henry

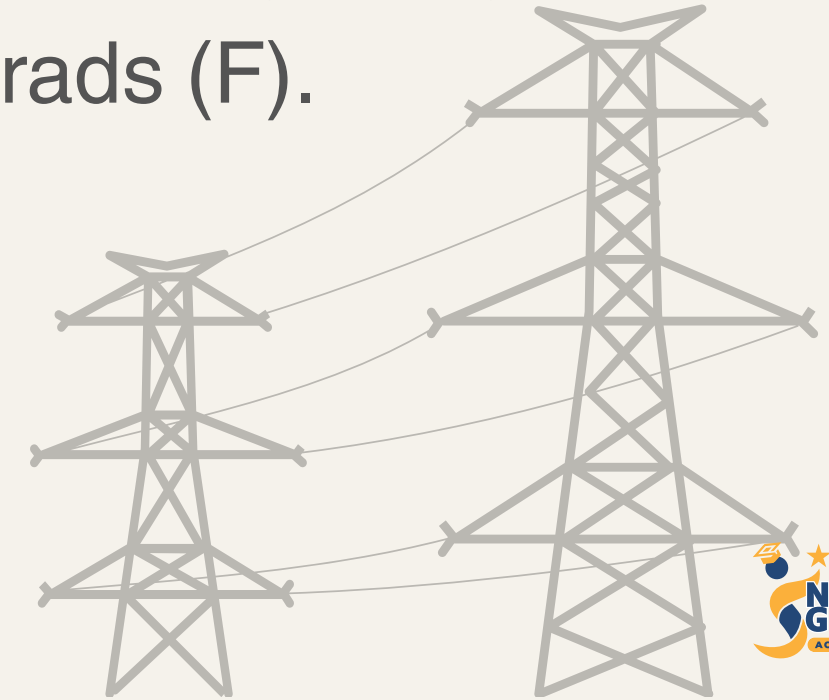
(b) Farad

(c) Ohm

(d) Tesla

**Ans: B**

**Explanation:**
Capacitance is measured in Farads (F).



# Electrical GK Quiz -1

## 16 Which device stores electrical energy?

(a) Inductor

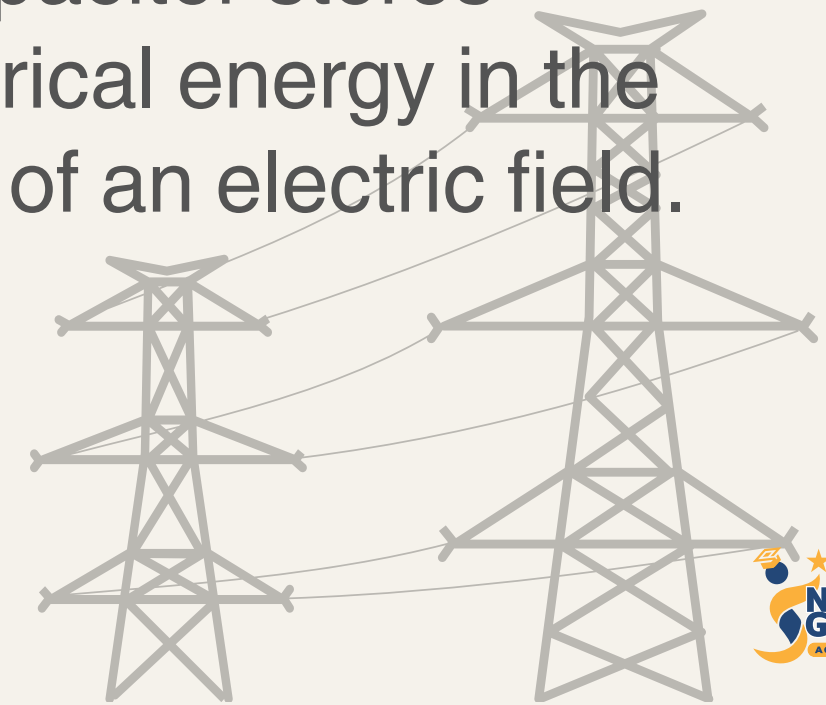
(b) Resistor

(c) Capacitor

(d) Transformer

**Ans: C**

**Explanation:**
A capacitor stores electrical energy in the form of an electric field.



# Electrical GK Quiz -1

## 17 The insulating material is:

(a) Copper

(b) Silver

(c) Aluminum

(d) Rubber

**Ans: D**

**Explanation:**
Rubber is an insulating material that resists current flow.

# Electrical GK Quiz -1

## 18 Which type of motor is used in ceiling fans?

(a) DC Motor

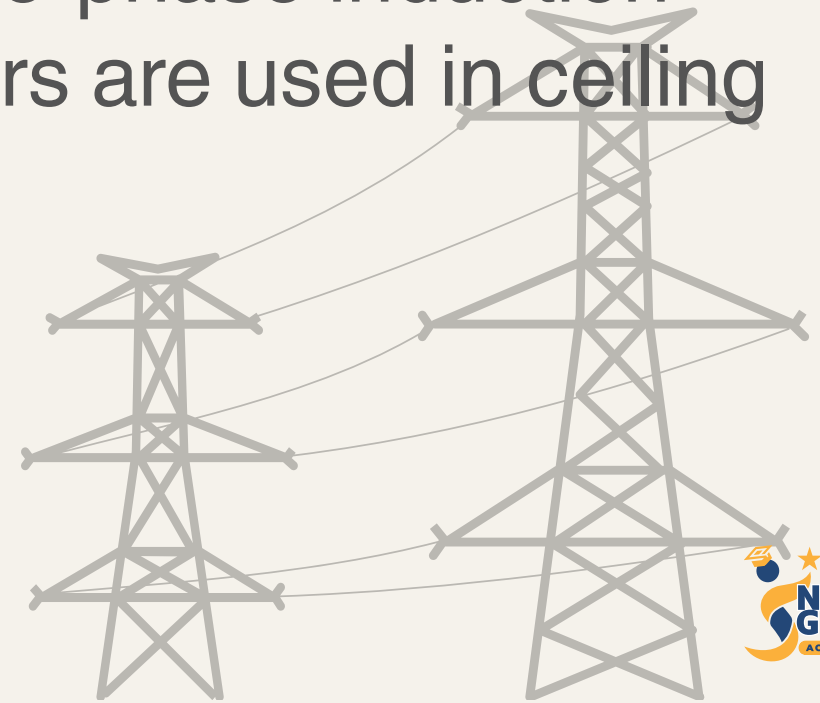
(b) Induction Motor

(c) Synchronous Motor

(d) Stepper Motor

**Ans: B**

**Explanation:**
Single-phase induction motors are used in ceiling fans.



# Electrical GK Quiz -1

## 19 Kirchhoff’s Voltage Law deals with:

(a) Current

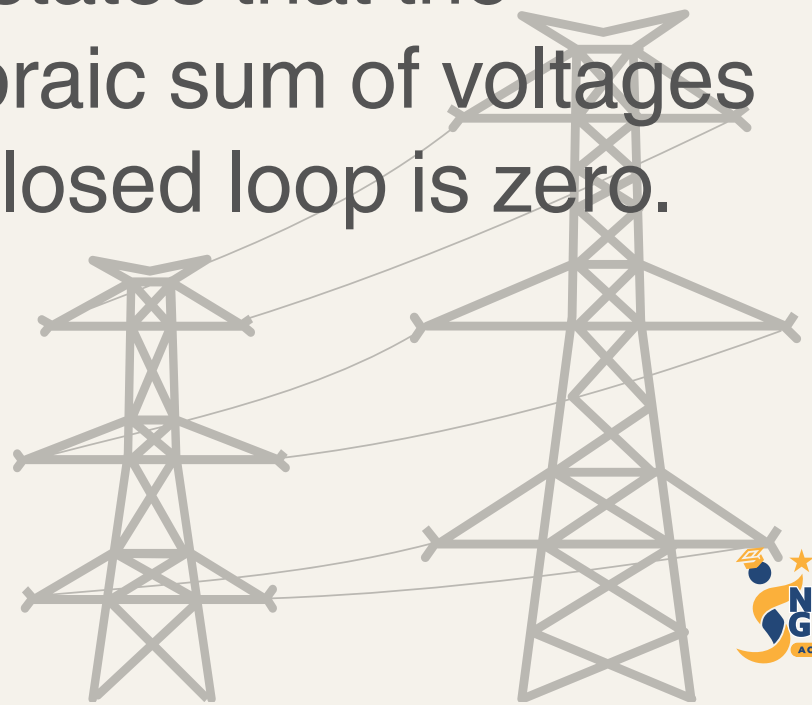
(b) Voltage

(c) Power

(d) Resistance

**Ans: B**

**Explanation:**
KVL states that the algebraic sum of voltages in a closed loop is zero.



# Electrical GK Quiz -1

## 20 The SI unit of inductance is:

(a) Farad

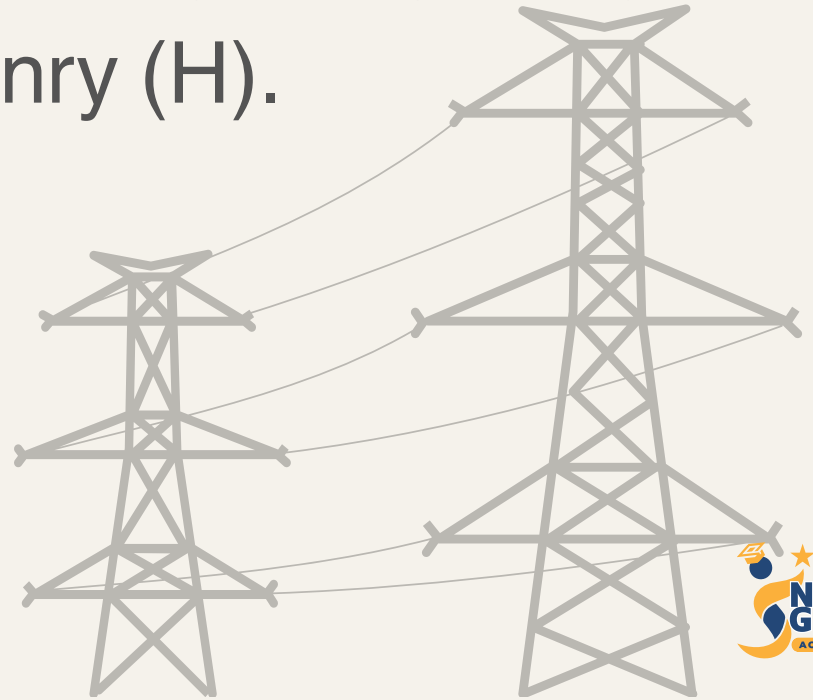
(b) Henry

(c) Tesla

(d) Weber

**Ans: B**

**Explanation:**
Inductance is measured in Henry (H).



# Electrical GK Quiz -1

## 21 Which effect is used in electric heaters?

(a) Joule Effect

(b) Faraday Effect

(c) Lenz Effect

(d) Hall Effect

**Ans: A**

**Explanation:**
Joule's law of heating explains heat produced by current in resistance.

# Electrical GK Quiz -1

## 22 The device that increases or decreases AC voltage is:

(a) Transformer

(b) Rectifier

(c) Generator

(d) Battery

**Ans: A**

**Explanation:**
Transformers step up or step down AC voltage levels.

# Electrical GK Quiz -1

## 23 The unit of electric charge is:

(a) Coulomb

(b) Newton

(c) Farad

(d) Henry

**Ans: A**

**Explanation:**
Electric charge is measured in Coulombs (C).

# Electrical GK Quiz -1

## 24 What is the typical voltage of a car battery?

(a) 6 V

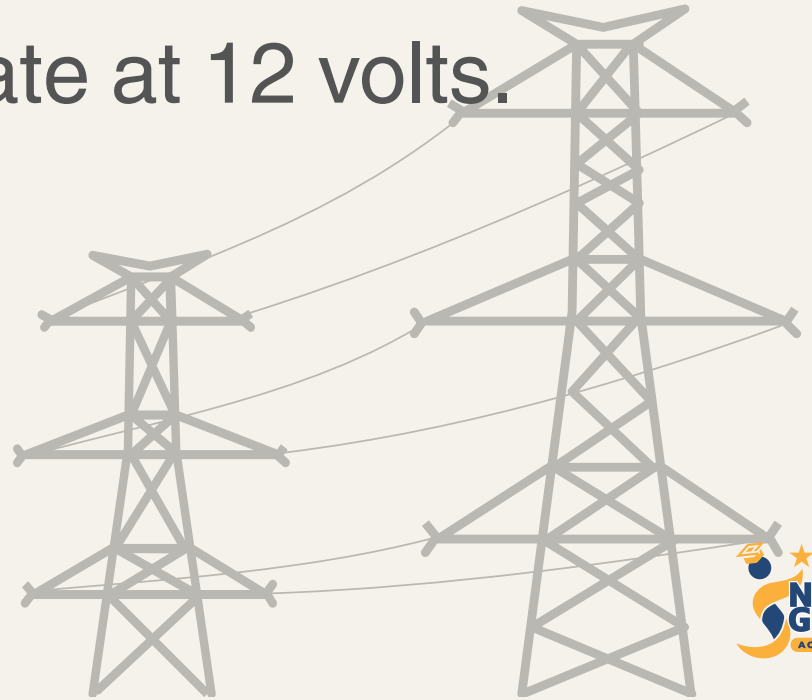
(b) 9 V

(c) 12 V

(d) 24 V

**Ans: C**

**Explanation:**
Most car batteries operate at 12 volts.



# Electrical GK Quiz -1

## 25 A diode allows current to flow in:

(a) Both directions

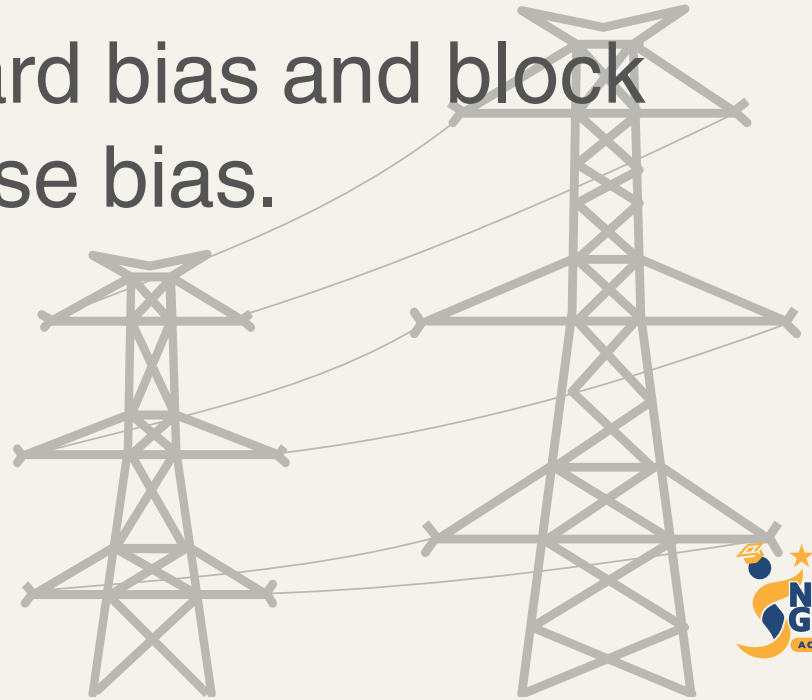
(b) Forward direction only

(c) Reverse direction only

(d) No direction

**Ans: B**

**Explanation:**
Diodes conduct in forward bias and block reverse bias.



# Electrical GK Quiz -1

## 26 The unit of magnetic flux is:

(a) Tesla

(b) Henry

(c) Weber

(d) Joule

**Ans: C**

**Explanation:**
Magnetic flux is measured in Webers (Wb).

# Electrical GK Quiz -1

## 27 The power consumed in a resistive circuit is:

(a) VI cosϕ

(b) VI sinϕ

(c) VI

(d) V/I

**Ans: C**

**Explanation:**

In a pure resistor, power P = VI.

# Electrical GK Quiz -1

## 28 Which motor is used in electric trains?

(a) Stepper Motor

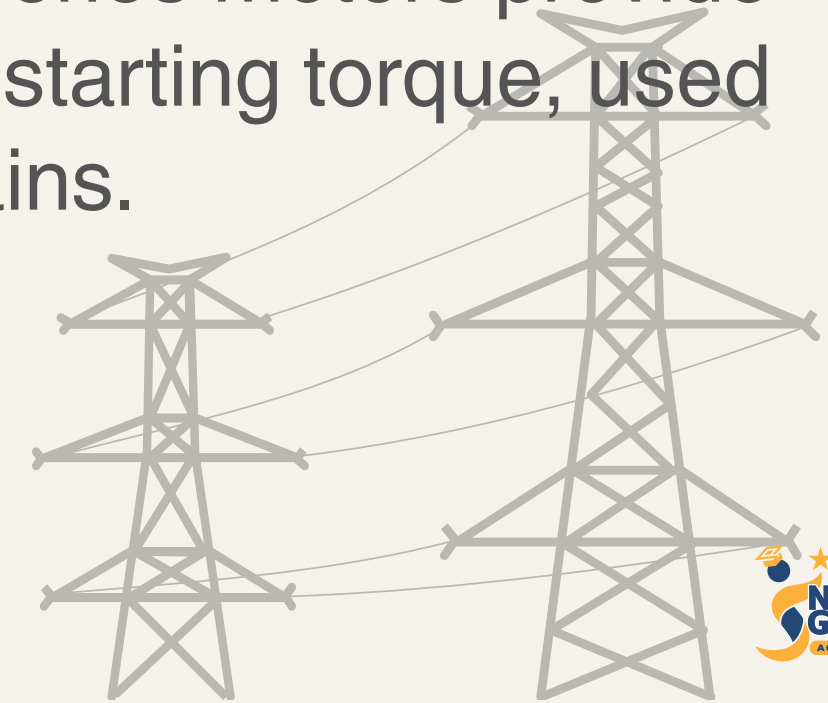
(b) DC Series Motor

(c) Induction Motor

(d) Universal Motor

**Ans: B**

**Explanation:**
DC series motors provide high starting torque, used in trains.



# Electrical GK Quiz -1

## 29 Which element opposes change in current?

(a) Capacitor

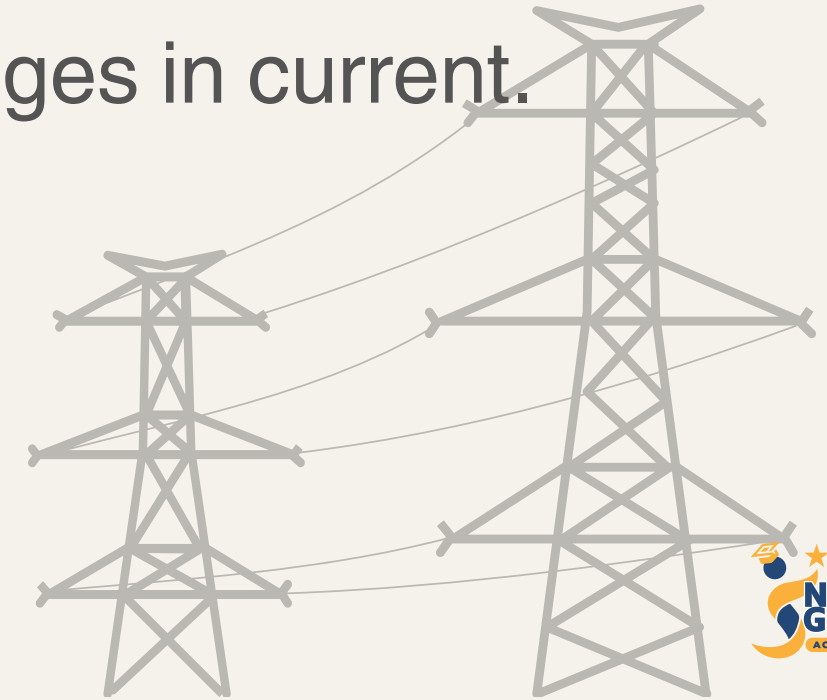
(b) Inductor

(c) Resistor

(d) Transistor

**Ans: B**

**Explanation:**
Inductors resist sudden changes in current.



# Electrical GK Quiz -1

## 30 The SI unit of frequency is:

(a) Hz

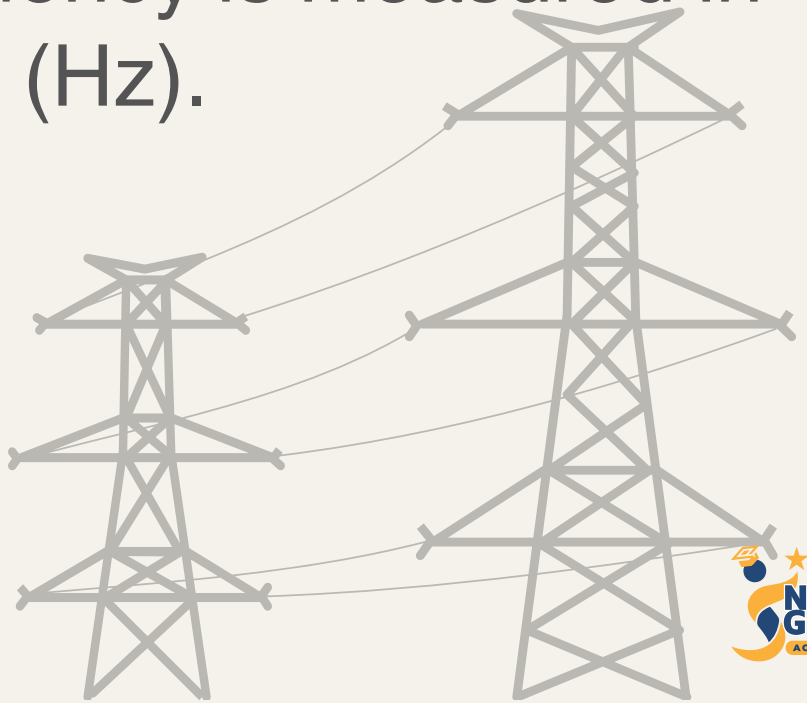
(b) Ohm

(c) Tesla

(d) Watt

**Ans: A**

**Explanation:**
Frequency is measured in Hertz (Hz).



# Electrical GK Quiz -1

## 31 Which law is related to conservation of charge?

(a) Coulomb’s Law

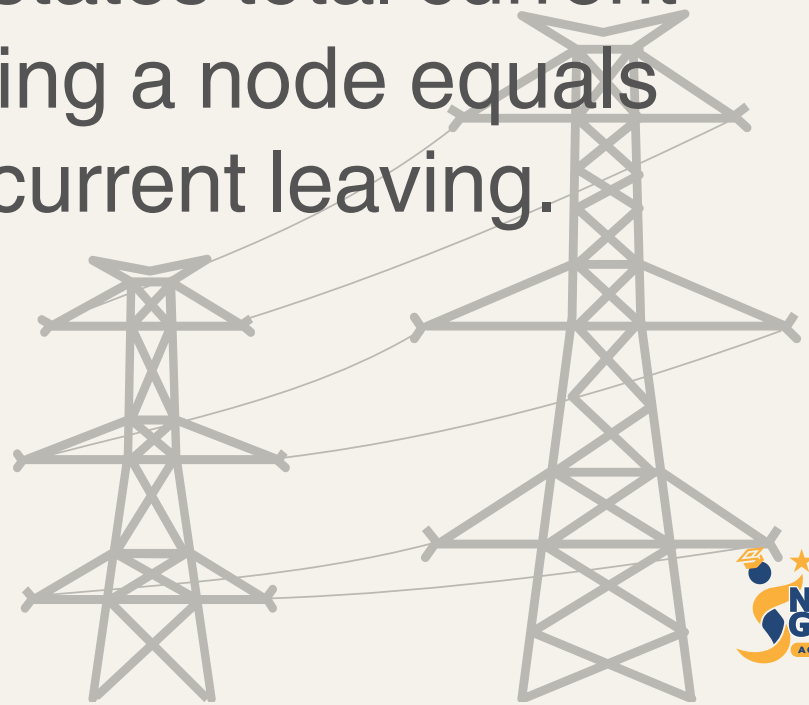
(b) Kirchhoff’s Current Law

(c) Ohm’s Law

(d) Lenz’s Law

**Ans: B**

**Explanation:**
KCL states total current entering a node equals total current leaving.



# Electrical GK Quiz -1

## 32 The energy stored in an inductor is:

(a) ½ $CV^2$

(b) ½ $LI^2$

(c) ½ QV

(d) VI

**Ans: B**

**Explanation:**
Inductor stores energy as magnetic field: (½ $LI^2$).

# Electrical GK Quiz -1

## 33 The color of neutral wire is:

(a) Black

(b) Blue

(c) Red

(d) Green

**Ans: B**

**Explanation:**
Neutral wires are standardized as blue.

# Electrical GK Quiz -1

## 34 The device used to protect circuits from overload is:

(a) Resistor

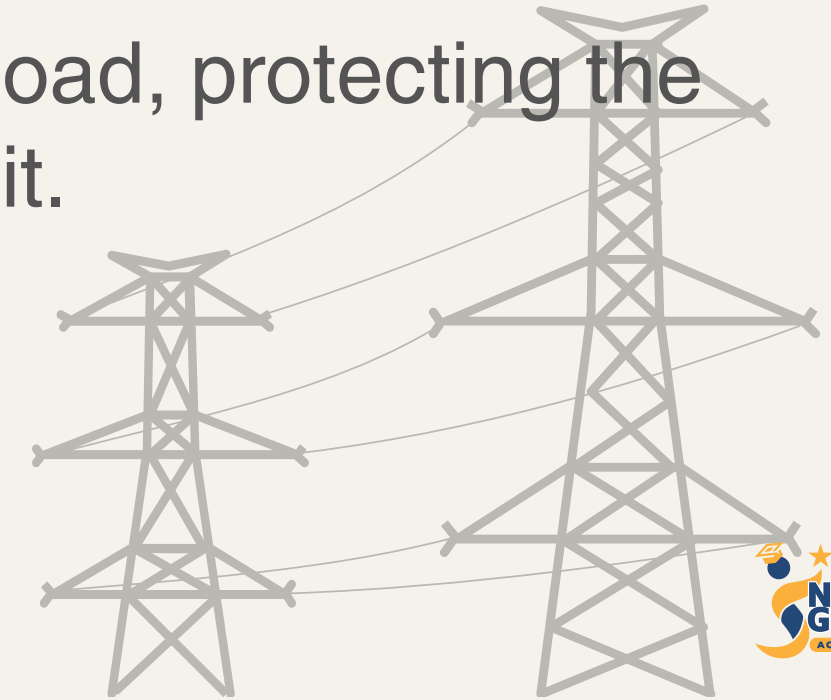
(b) Transformer

(c) Fuse

(d) Capacitor

**Ans: C**

**Explanation:**
A fuse melts under overload, protecting the circuit.



# Electrical GK Quiz -1

## 35 A synchronous motor runs at:

(a) Variable speed

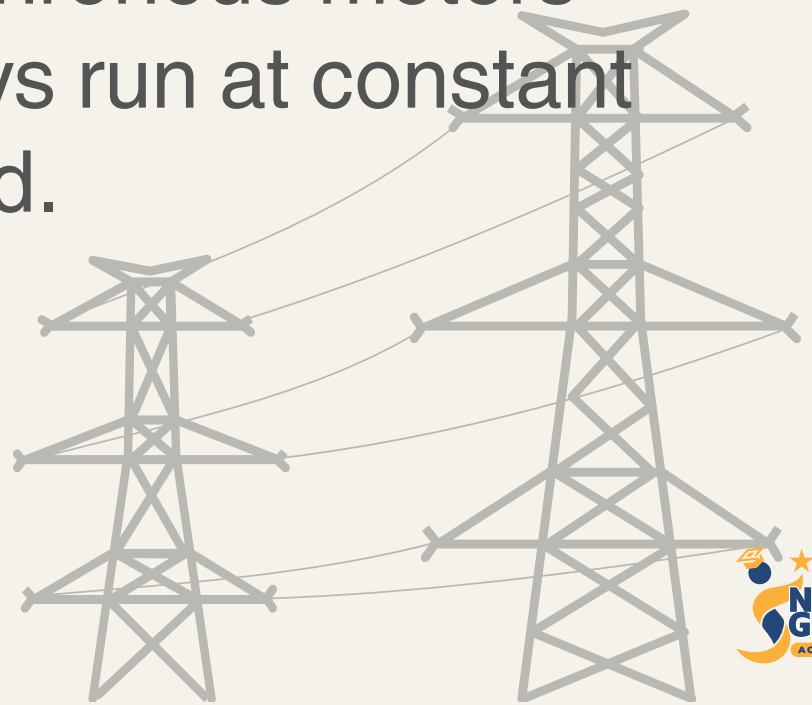
(b) Constant speed

(c) Zero speed

(d) Half speed

**Ans: B**

**Explanation:**
Synchronous motors always run at constant speed.



# Electrical GK Quiz -1

## 36 The speed of a DC motor is controlled by:

(a) Voltage

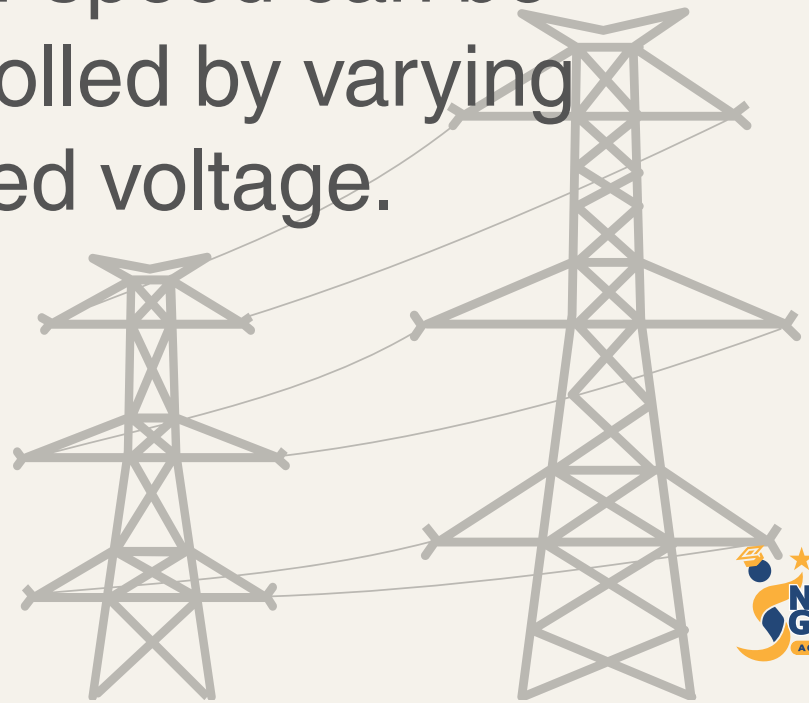
(b) Current

(c) Resistance

(d) Inductance

**Ans: A**

**Explanation:**
Motor speed can be controlled by varying applied voltage.



# Electrical GK Quiz -1

## 37 What is the efficiency of an ideal transformer?

(a) 50%

(b) 75%

(c) 90%

(d) 100%

**Ans: D**

**Explanation:**
An ideal transformer has 100% efficiency (no losses).

# Electrical GK Quiz -1

## 38 Which device measures power?

(a) Ammeter

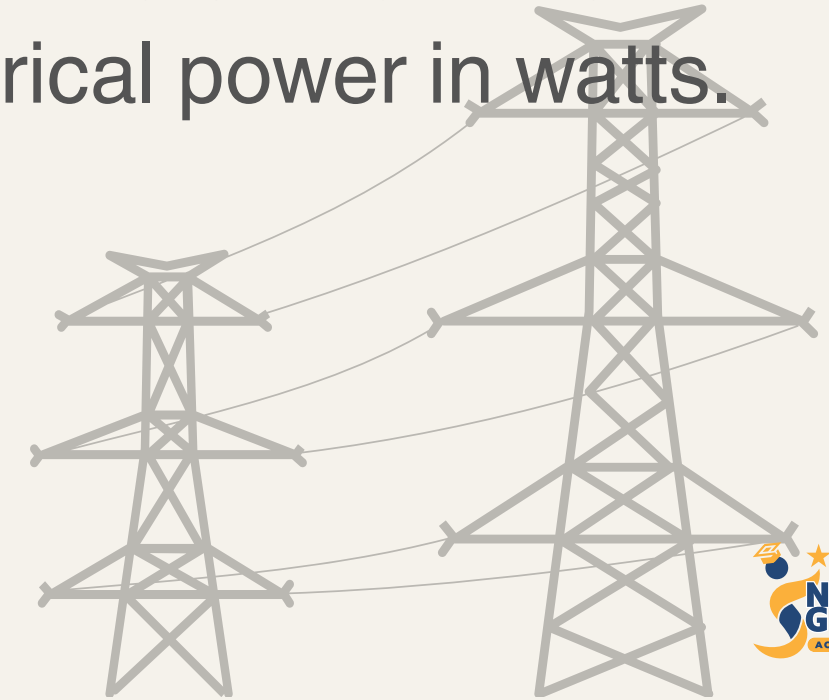
(b) Voltmeter

(c) Wattmeter

(d) Ohmmeter

**Ans: C**

**Explanation:**
A wattmeter measures electrical power in watts.



# Electrical GK Quiz -1

## 39 A semiconductor diode is made of:

(a) Copper

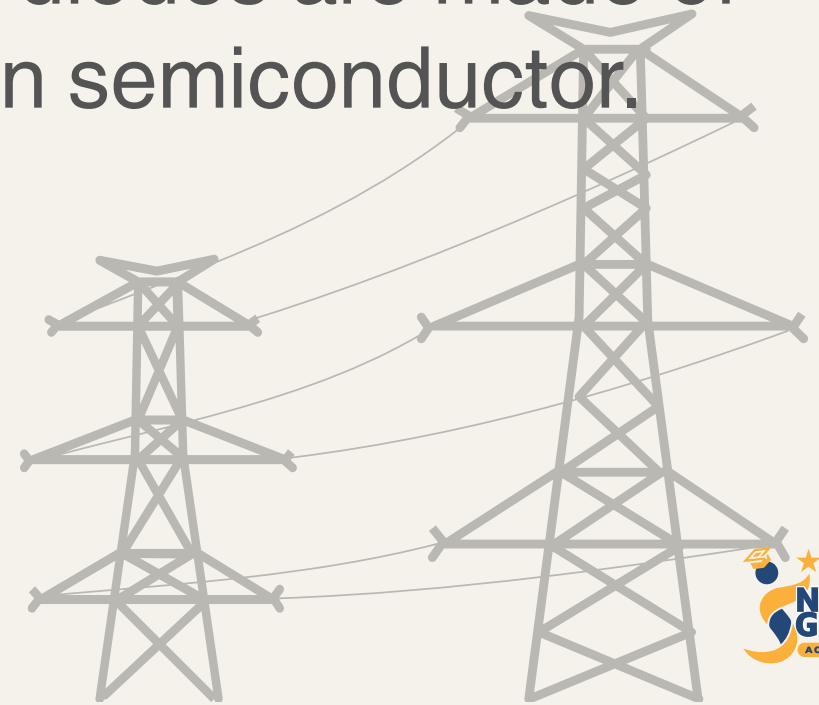
(b) Silicon

(c) Aluminum

(d) Iron

**Ans: B**

**Explanation:**
Most diodes are made of silicon semiconductor.



# Electrical GK Quiz -1

## 40 The unit of electric field is:

(a) N/C

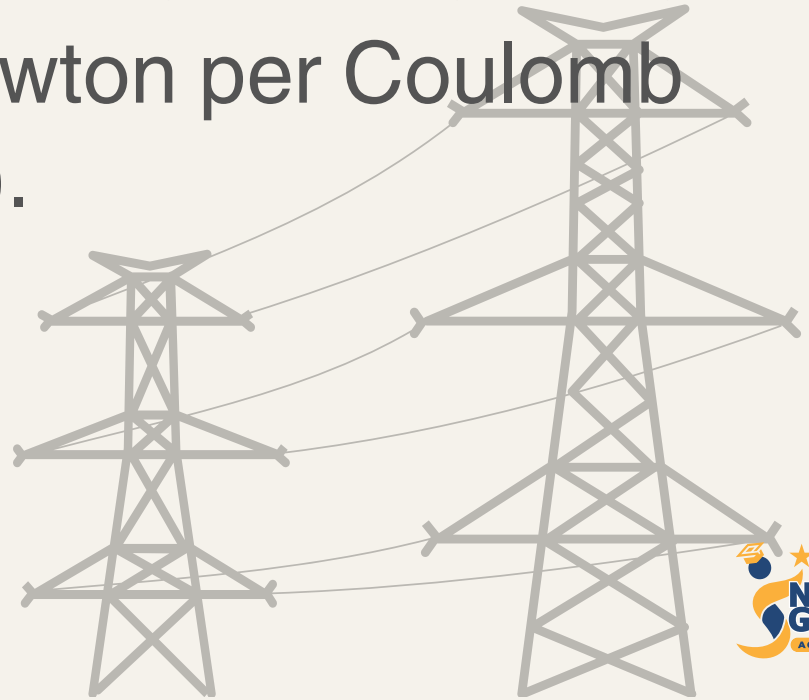
(b) Ohm

(c) Tesla

(d) Watt

**Ans: A**

**Explanation:**
Electric field is measured in Newton per Coulomb (N/C).



# Electrical GK Quiz -1

## 41 The main function of a transformer is:

(a) Convert AC to DC

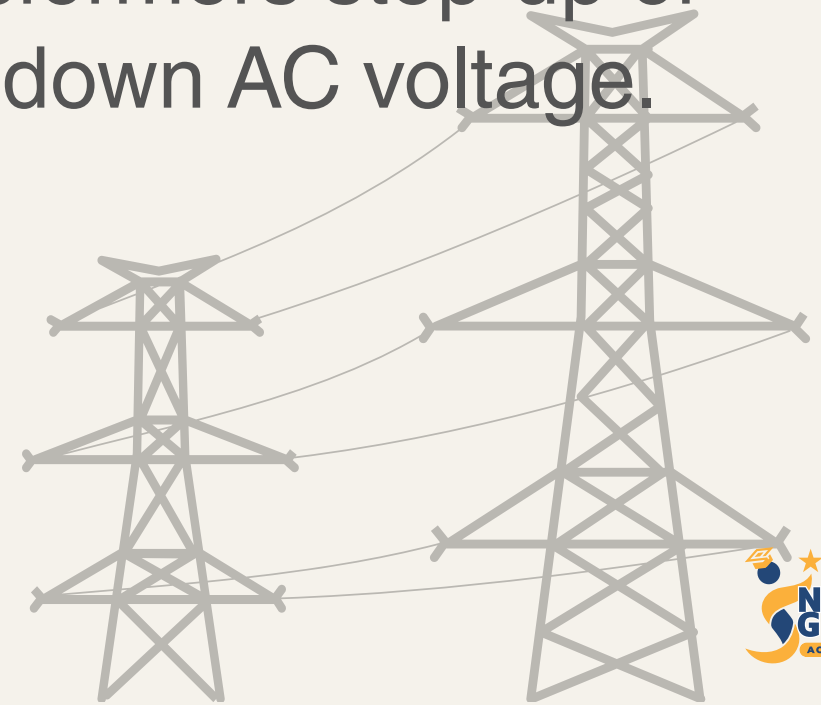
(b) Change voltage level

(c) Store energy

(d) Produce current

**Ans: B**

**Explanation:**
Transformers step-up or step-down AC voltage.



# Electrical GK Quiz -1

## 42 Which type of current flows in one direction only?

(a) AC

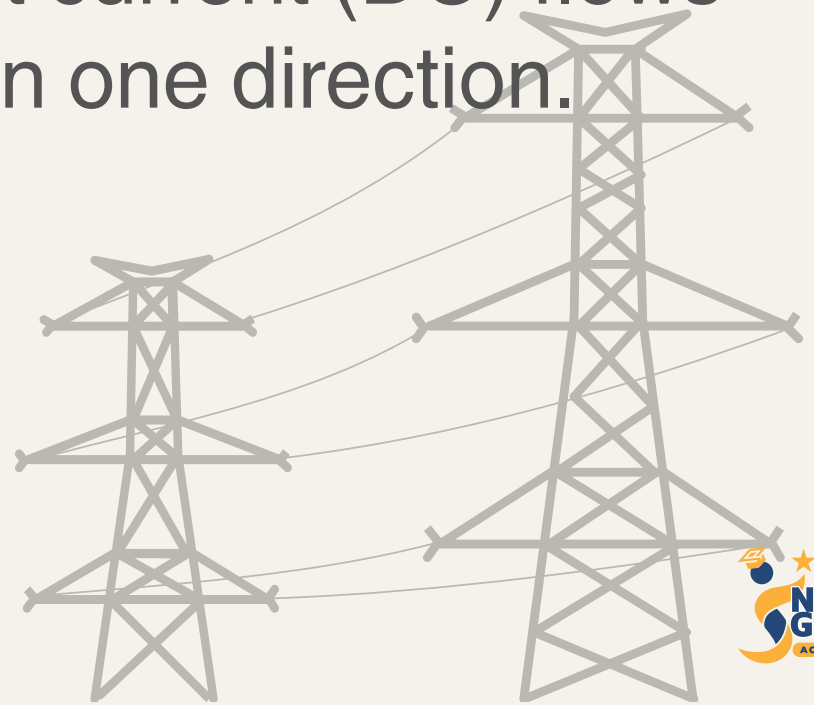
(b) DC

(c) Pulsating

(d) Alternating

**Ans: B**

**Explanation:**
Direct current (DC) flows only in one direction.



# Electrical GK Quiz -1

## 43 Lightning arrester is used for:

(a) Overvoltage protection

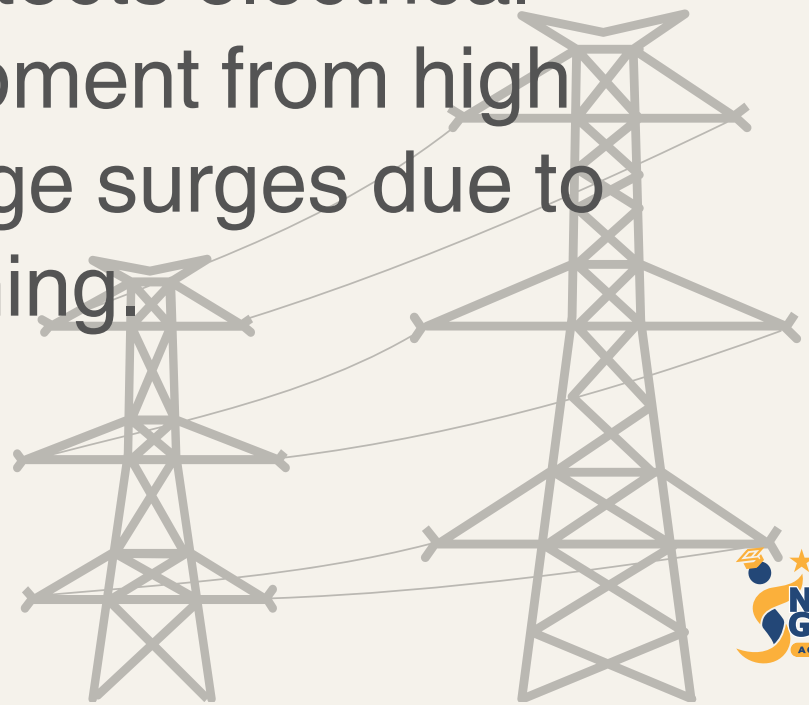
(b) Overcurrent protection

(c) Power factor improvement

(d) Voltage regulation

**Ans: A**

**Explanation:**
It protects electrical equipment from high voltage surges due to lightning.



# Electrical GK Quiz -1

## 44 The symbol Ω stands for:

(a) Current

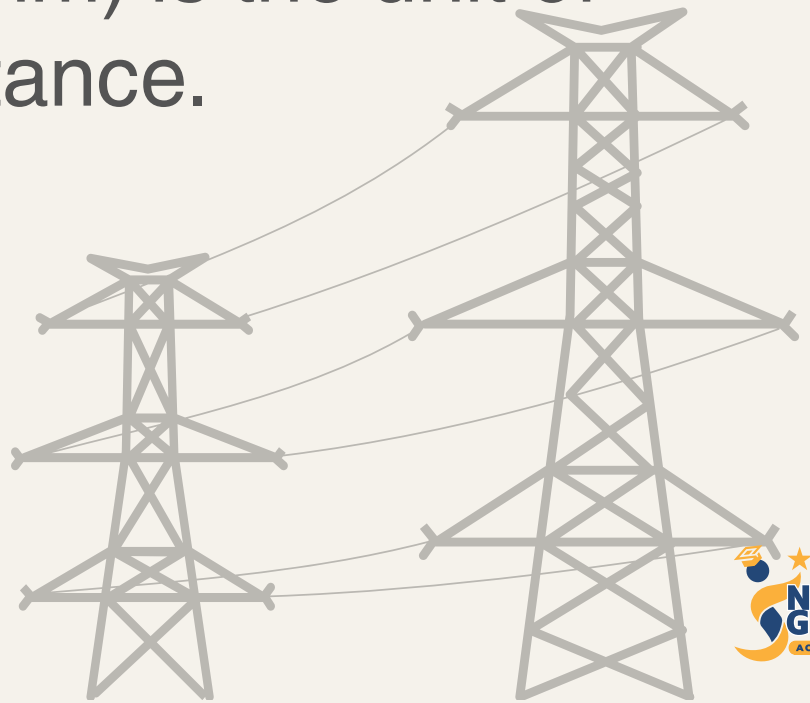
(b) Resistance

(c) Voltage

(d) Power

**Ans: B**

**Explanation:**
Ω (Ohm) is the unit of resistance.



# Electrical GK Quiz -1

## 45 Electric energy is measured in:

(a) Joule

(b) kWh

(c) Watt

(d) Ampere

**Ans: B**

**Explanation:**
Electric energy consumed is measured in kilowatt-hour (kWh).

# Electrical GK Quiz -1

## 46 A step-up transformer increases:

(a) Current

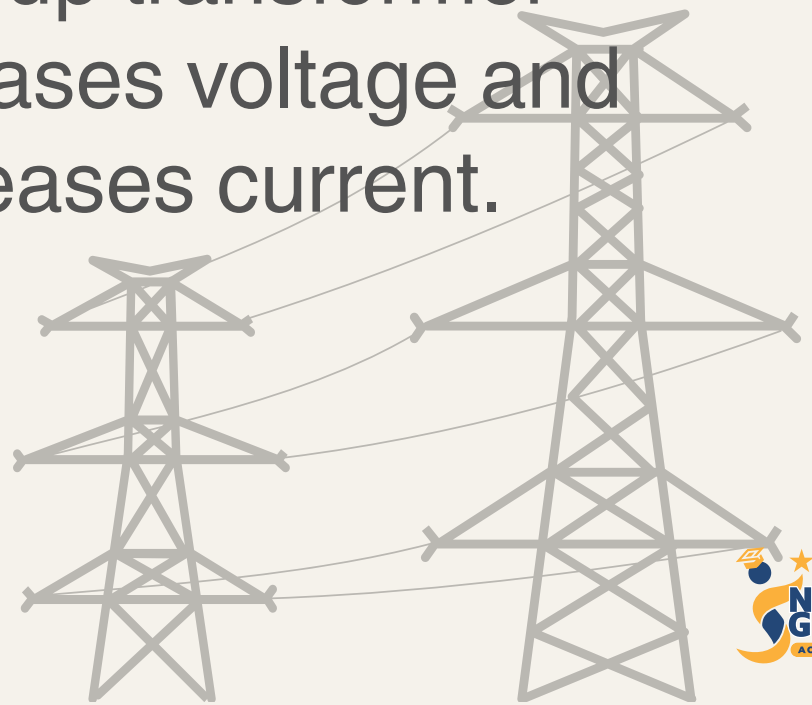
(b) Voltage

(c) Power

(d) Resistance

**Ans: B**

**Explanation:**
Step-up transformer increases voltage and decreases current.



# Electrical GK Quiz -1

## 47 Which motor is used in refrigerators?

(a) Synchronous Motor

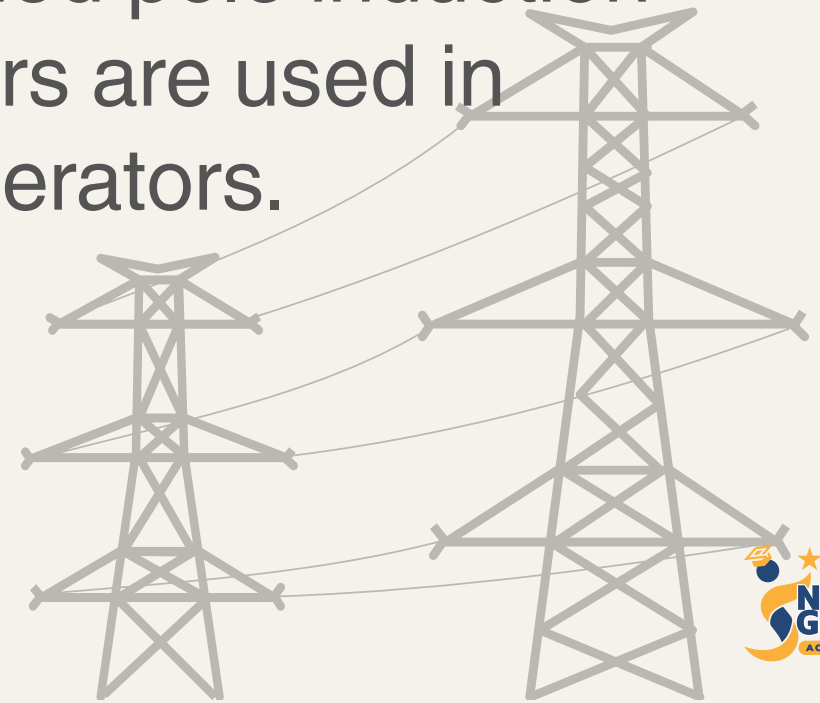
(b) Shaded Pole Motor

(c) Stepper Motor

(d) DC Motor

**Ans: B**

**Explanation:**
Shaded pole induction motors are used in refrigerators.



# Electrical GK Quiz -1

## 48 The resistance of an ideal voltmeter is:

(a) Zero

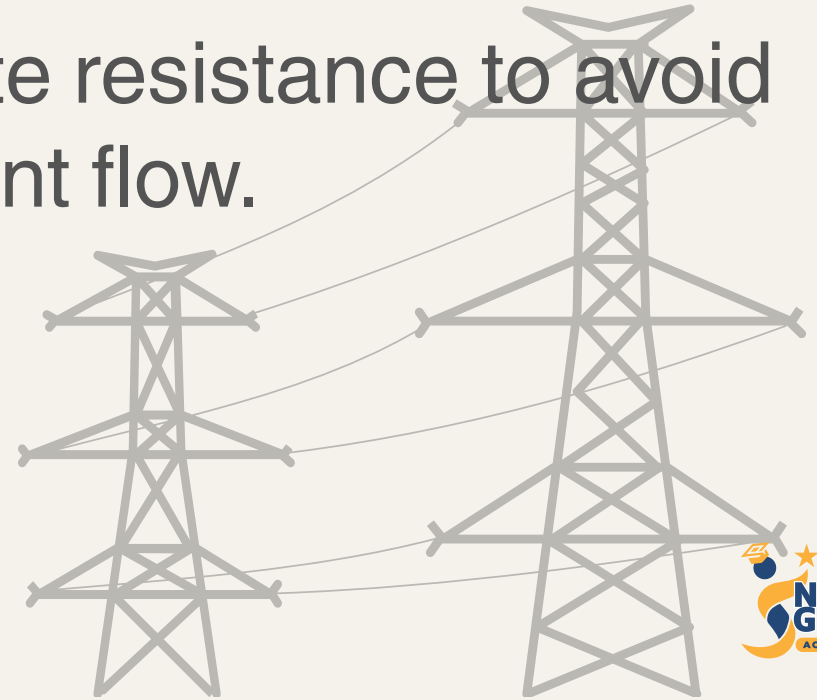
(b) Very low

(c) Infinite

(d) Medium

**Ans: C**

**Explanation:**
Ideal voltmeter has infinite resistance to avoid current flow.



# Electrical GK Quiz -1

## 49 The resistance of an ideal ammeter is:

(a) Zero

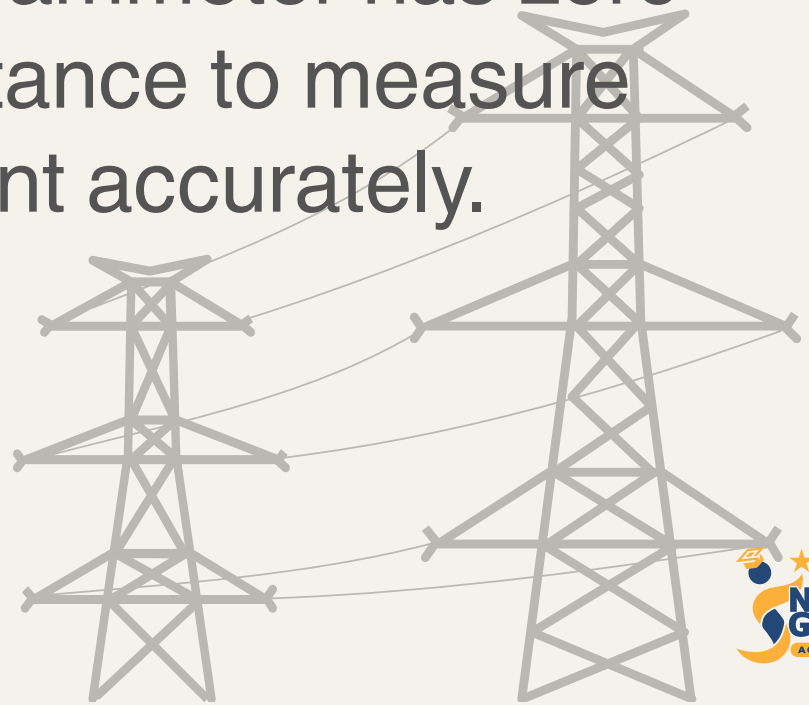
(b) Infinite

(c) Medium

(d) High

**Ans: A**

**Explanation:**
Ideal ammeter has zero resistance to measure current accurately.



# Electrical GK Quiz -1

## 50 Which law gives the direction of induced EMF?

(a) Faraday’s Law

(b) Coulomb’s Law

(c) Lenz’s Law

(d) Ampere’s Law

**Ans: C**

**Explanation:**
Lenz’s Law states that induced EMF opposes the change in flux.