

Fundamentals of Electrical Engineering

Electrical Engineering · Answer Key · 15 Questions

1. What is the standard unit of electrical resistance?

- A) Volt
- B) Ampere
- C) Ohm**
- D) Watt

2. Which law defines the relationship between voltage, current, and resistance?

- A) Ohm's Law**
- B) Newton's Law
- C) Faraday's Law
- D) Coulomb's Law

3. What component is used to store electrical energy in an electric field?

- A) Resistor
- B) Capacitor**
- C) Inductor
- D) Transistor

4. Which material is commonly used as a conductor in electrical wiring due to its high conductivity?

- A) Rubber
- B) Copper**
- C) Glass
- D) Plastic

5. What is the SI unit for electric current?

- A) Volt
- B) Ohm
- C) Watt
- D) Ampere**

6. Which device is used to transform voltage levels in AC circuits?

- A) Transformer**
- B) Diode
- C) Resistor
- D) Battery

7. What does the abbreviation 'DC' stand for in electrical circuits?

- A) Dual Current
- B) Direct Current**
- C) Digital Circuit
- D) Dynamic Charge

8. Which component allows current to flow in only one direction?

- A) Diode**
- B) Resistor
- C) Capacitor
- D) Inductor

9. What is the unit of electrical power?

- A) Volt
- B) Joule
- C) Watt**
- D) Henry

10. Which of these is considered an electrical insulator?

- A) Aluminum
- B) Gold
- C) Rubber**
- D) Silver

11. What is the potential difference between two points in a circuit measured in?

- A) Amperes
- B) Volts**
- C) Ohms
- D) Watts

12. Which particle carries a negative electrical charge?

- A) Proton
- B) Neutron
- C) Electron**
- D) Nucleus

13. What type of circuit provides only one path for current to flow?

- A) Series circuit**
- B) Parallel circuit
- C) Short circuit
- D) Open circuit

14. What property of a material opposes the flow of electric current?

A) Conductance

B) Resistance

C) Capacitance

D) Inductance

15. Which element is frequently used to make semiconductors?

A) Silicon

B) Iron

C) Gold

D) Lead