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## Ohms Law MCQ Test

### Take Ohms Law MCQ Test & Online Quiz to test your Knowledge

Below is the **Ohms Law MCQ** test that checks your basic knowledge of Ohms Law. This **Ohms Law MCQ Test** contains 20 Multiple Choice Questions. You have to select the right answer to the question. Finally, you can also take the Online Quiz from the Take **Electrical Ohms Law Quiz** Button.

**Q1. Ohm's law is not applicable to which of the following options?**

- A. Dc circuits
- B. High currents
- C. Small resistors
- **D. Semi-conductors**

**Q2. Which of the statement correctly represents Ohm's law?**

- A.  $R = VI$
- **B.  $V = IR$**
- C.  $V = R/I$
- D.  $I = R/V$

**Q3. What is the unit of voltage?**

- **A. Volt**
- B. Watt
- C. Ampere
- D. Coulomb

**Q4. Which of the following components obey ohm's law?**

- A. Resistors
- **B. Ohmic components**
- C. Non-ohmic components
- D. All of the above

**Q5. An electrical bulb draws 5 A current when connected to a 100-V wall outlet, the resistance of bulb is:**

- **A. 20 ?**
- B. 50 ?
- C. 100 ?
- D. 500 ?

**Q6. Ohm's law describes the mathematical relationship between**

- A. resistor size and resistor value
- B. ohms, kilohms, and megohms
- **C. resistance, voltage, and current**
- D. None of the above

**Q7. Ohm's law states:**

- A.  $VI^2 = R$
- **B.  $V = IR$**
- C.  $V/I = R^2$
- D. None of the above

**Q8. A potential difference of 10 V is applied across a conductor whose resistance is 2.5 ohm. What is the value of current flowing through it?**

- **A. 4 amperes**
- B. 2 amperes
- C. 6 amperes
- D. 10 amperes

**Q9. When the length of the conductor is doubled and the area of cross-section remains the same then its resistance \_\_\_\_.**

- **A. will be doubled**
- B. remains the same
- C. will become half
- D. will increase by four times

**Q10. Least current will flow through \_\_\_\_.**

- A. 18 ohm resistor
- B. 5 ohm resistor
- C. 10 ohm resistor
- **D. 25 ohm resistor**

**Q11. What is the unit of resistance?**

- **A. ohm**
- B. ohm<sup>2</sup>
- C. Volt
- D. Watt

**Q12. What is the unit of current?**

- **A. ampere**
- B. volt
- C. watt
- D. ohm

**Q13. Ohmic components obey Ohm's law.**

- **A. True**
- B. False

**Q14. Which among the following is ohmic component?**

- **A. resistors**
- B. power
- C. force
- D. None of the above

**Q15. The potential difference across a 5 k $\Omega$  is 12 V. Find the current flowing through the resistor:**

- A. 0.998 mA
- B. 1.77 mA
- **C. 2.4 mA**
- D. 60 mA

**Q16. Is ampere is the unit of resistance?**

- A. Yes
- **B. No**

**Q17. Approximately how many milli-amperes of current flow through a circuit with a 40 V source and 6.8 k $\Omega$  of resistance?**

- A. 27.2 mA
- B. 59 mA
- **C. 5.9 mA**
- D. 590 mA

**Q18. According to Ohm's Law:**

- A. V is inversely proportional to I
- **B. V is directly proportional to I**
- C. V is directly proportional to  $V I$
- D. All of the above

**Q19. In Physics, potential difference represents \_\_\_\_.**

- A. Current
- B. Resistor
- **C. Voltage**
- D. None of the above

**Q20. How much current passing through 10k $\Omega$  resistor that will produce a voltage of 8V across it?**

- **A. 0.0008A**
- B. 0.0008mA
- C. 0.00008A
- D. None of the above

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