

Introduction to electrical circuits

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Class: ELT 201 Date: _____
Test # Results: _____

Carefully read each question, and circle the letter next to the correct answer.

1. Which material would be the best conductor for electricity?
 - a. Silicon
 - b. Porcelain
 - c. Plastic
 - d. Gold

2. What number of electrons are typically found in the valence shell of a conductor?
 - a. 3 or more
 - b. 3 or less
 - c. 4
 - d. 5 or more

3. Which of the following terms is another way of defining voltage?
 - a. Resistance
 - b. Current
 - c. Electromotive force
 - d. Coulomb

4. Resistance in a circuit is measured in?
- Volts
 - Ohms
 - Amps
 - Joules
5. In Ohms law the symbol "E" represents _____.
- Resistance
 - Watts
 - Amps
 - Volts
6. $E =$
- $I \times R$
 - $I \div R$
 - R^2
 - I^2
7. Current equals voltage divided by _____.
- Watts
 - Volts
 - Joules
 - Resistance
8. When 100 ohm, 50 ohm, and 10 ohm resistors are connected in parallel, the total circuit resistance will always be?
- Less than 10 ohm
 - Greater than 100 ohm
 - The root mean square of 160 ohm
 - The average of the three resistors

9. How must a voltmeter be connected to measure the voltage applied to a component?
- With the circuit disconnected
 - In series with the component
 - With the circuit de-energized
 - Across the component
10. To check the direction of rotation of a three phase motor, use a _____.
- Voltmeter
 - Ammeter
 - Phase sequence rotation meter
 - High pot
11. The prefix used to indicate one thousand is?
- Mega
 - Kilo
 - Micro
 - Milli
12. An instrument used to measure resistance is called a(n)?
- Voltmeter
 - Ohmmeter
 - Ammeter
 - Pedometer