Automotive Technology 7th Edition
Chapter 38
Multiple Choice Quiz A

Name: _____ Date: _____

1. Which type of circuit has more than one electrical load where all of the current has only one path to flow through all of the loads?
A. Parallel circuit
B. Series circuit
C. Series-parallel circuit
D. Compound circuit

2. In which type of circuit is the total resistance the sum of the individual resistances?
A. Parallel circuit
B. Series circuit
C. Series-parallel circuit
D. Compound circuit

3. Which law states that the current is constant throughout the entire circuit?
A. Ohm's law
B. Kirchhoff's voltage law
C. Kirchhoff's current law
D. Faraday's law

4. What is the term used to describe the voltage reduction that occurs when current flows through a resistance?
A. Voltage surge
B. Voltage drop
C. Voltage spike
D. Voltage deviation

5. In a parallel circuit, if there is more than one path for the current to flow, most of the current will flow through the branch with the _____.
A. Lowest resistance
B. Highest resistance
C. Highest voltage
D. Lowest voltage

6. Which of the following is NOT considered to be included in the determination of a series circuit?
A. Fuses
B. Motors
C. Bulbs
D. Resistors

7. What happens to the current in a series circuit if there is a break (open) anywhere in the circuit?
A. It doubles
B. It reduces by half
C. It remains constant
D. It stops

8. In a series-parallel circuit problem, what is the key to simplification?
A. Multiply resistances first
B. Subtract resistances first
C. Combine or simplify resistances as much as possible
D. Divide resistances first

9. Which law states that the sum of the individual voltage drops in a series circuit is equal to the total applied voltage?
A. Ohm’s law
B. Kirchhoff’s voltage law
C. Kirchhoff’s current law
D. Faraday's law

10. In a parallel circuit where there is more than one path for the current to flow, where does the majority of the current flow?
A. Through the path with the lowest resistance
B. Through the path with the highest resistance
C. Equally through all paths
D. Through the path closest to the power source

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Answer Key

1. B

2. B

3. C

4. B

5. A

6. A

7. D

8. C

9. B

10. A