Automotive Electrical and Engine Performance, 8th Edition
Quiz 5B

Name_____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

1) In a series circuit with two resistors, the resistor with the highest resistance will drop _____ volts than the lowest resistance. 1) _____
   A) more
   B) less
   C) the same
   D) None of these

2) If one branch of a parallel circuit loses continuity, the other branches will still each receive source voltage and ground. 2) _____
   A) True
   B) False

3) Technician A says that the sum of the voltage drops in a series circuit should equal the source voltage. Technician B says the current (amperes) varies depending on the value of the resistance in a series circuit. Which technician is correct? 3) _____
   A) Technician A only
   B) Technician B only
   C) Both technicians A and B
   D) Neither technician A nor B

4) As additional branches are added to a parallel circuit, total circuit amperage _____. 4) _____
   A) increases
   B) decreases
   C) remains the same
   D) None of these

5) In a series circuit _____. 5) _____
   A) total circuit resistance is equal to the sum of all resistances in the circuit
   B) current flow is constant at any point in the circuit
   C) Both A and B
   D) Neither A nor B

6) Knowledge of parallel circuit fundamentals is necessary to diagnose _____. 6) _____
   A) port fuel injection circuits
   B) diesel glow plug circuits
   C) add-on lighting circuits
   D) All of these

7) If a 12-volt battery is connected to a series circuit with three resistors of 2 ohms, 4 ohms, and 6 ohms, how much current will flow through the circuit? 7) _____
   A) 1 amp
   B) 2 amp
   C) 3 amp
   D) 4 amp

8) The total circuit resistance of a parallel circuit is always _____ the lowest resistance present in any branch of the circuit. 8) _____

A) less than
B) more than
C) equal to
D) None of these

9) The amperage in a series circuit is _____. 9) _____

A) the same anywhere in the circuit
B) varies in the circuit due to the different resistances
C) high at the beginning of the circuit and decreases as the current flows through the resistance
D) always less returning than leaving the battery

10) The sum of currents in each branch of a parallel circuit will _____ total circuit current. 10) _____

A) equal
B) be more than
C) be less than
D) None of these

Answer Key
Testname: AEEP8_5B

1) A
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2) A
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3) C
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4) A
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5) C
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6) D
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7) A
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8) A
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9) A
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10) A
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