Automotive Electrical and Engine Performance 9th Edition
Chapter 5 – Circuit Testers and Digital Meters
Multiple Choice Questions Quiz B

1. Which type of circuit tester should be used for diagnosing computer-controlled circuits without risking component damage?

a) Low-impedance test light

b) High-impedance digital multimeter (DMM)

c) Analog volt-ohm meter

d) Non-fused test probe

2. Technician A states that a fused jumper wire can replace a circuit resistance temporarily. Technician B says a fused jumper wire should never bypass a circuit's load. Who is correct?

a) Technician A only

b) Technician B only

c) Both Technicians A and B

d) Neither Technician A nor B

3. When using an inductive ammeter, what is the primary measurement taken?

a) Voltage across a load

b) Frequency of an AC signal

c) Resistance in a specific section

d) Current flowing through a conductor

4. A reading of 0.8 volts during a diode check on a DMM indicates:

a) A good silicon diode

b) A shorted diode

c) An open diode

d) A functioning LED

5. What does “OL” signify on a digital multimeter set to measure resistance?

a) Overload current detected

b) Open circuit or infinite resistance

c) Ohms below 0.1

d) Low voltage condition

6. Technician A states that a test light with an LED is safe for testing computer circuits. Technician B claims any test light can be used for computer circuits. Who is correct?

a) Technician A only

b) Technician B only

c) Both Technicians A and B

d) Neither Technician A nor B

7. Which prefix represents a value of one-thousandth in electrical measurements?

a) Kilo (k)

b) Mega (M)

c) Milli (m)

d) Micro (μ)

8. When testing for voltage drop in an automotive circuit, a reading of 100 mV on the DMM would be displayed as:

a) 0.1 V

b) 10 V

c) 1.0 V

d) 0.01 V

9. A duty cycle reading of 75% on a fuel injector indicates:

a) The injector is open 75% of the time

b) The fuel mixture is 75% air

c) The injector is open 25% of the time

d) The injector flow rate is reduced by 25%

10. What is the purpose of a logic probe when used in automotive diagnostics?

a) Measure resistance in a high-current circuit

b) Detect power, ground, or pulsing signals in electronic circuits

c) Provide a high-resolution reading of temperature changes

d) Measure current flow in large-gauge wiring

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Answer Key Quiz B

Correct Answers:

1. b

2. b

3. d

4. a

5. b

6. a

7. c

8. a

9. a

10. b