

**Automotive Electrical and Engine Performance 9th Edition**  
**Chapter 46 – Strategy-Based Diagnosis**  
**Multiple Choice Questions Quiz B**

1. What is the first step in the eight-step diagnostic procedure?
  - a. Verify the problem (concern)
  - b. Perform a thorough visual inspection
  - c. Retrieve the diagnostic trouble codes (DTCs)
  - d. Check for technical service bulletins (TSBs)
  
2. Why is it important to check for TSBs during a diagnostic process?
  - a. To identify updates on vehicle recalls
  - b. To find manufacturer-provided solutions for known issues
  - c. To confirm proper scan tool compatibility
  - d. To locate parts replacements for ongoing repairs
  
3. What is the purpose of performing a smoke test during diagnosis?
  - a. To check fuel injector performance
  - b. To identify malfunctioning spark plugs
  - c. To detect vacuum leaks in the intake system
  - d. To measure the exhaust gas levels
  
4. How should a freeze-frame data set be used during the repair process?
  - a. For determining which parts to replace immediately
  - b. To recreate vehicle conditions at the time of the fault
  - c. For validating emissions test results
  - d. To verify the accuracy of scan tool parameters

5. What is a key characteristic of a pending code?
- a. It activates the malfunction indicator lamp (MIL) immediately
  - b. It indicates a fault condition that has not recurred
  - c. It requires three consecutive passes to clear
  - d. It is associated with misfire events only
6. What is the proper voltage range for a fully charged automotive battery?
- a. 12.4 to 12.6 volts
  - b. 11.8 to 12.2 volts
  - c. 13.2 to 14.5 volts
  - d. 13.5 to 15.0 volts
7. What does a spark tester measure?
- a. The strength and consistency of ignition spark
  - b. The fuel-air mixture entering the engine
  - c. Cylinder pressure during compression
  - d. Voltage in the primary ignition coil
8. What type of scan tool is required to retrieve manufacturer-specific data?
- a. Generic OBD-II scan tool
  - b. Bluetooth-enabled scan adapter
  - c. Factory-level diagnostic scan tool
  - d. Universal aftermarket scan tool

9. How can bad gasoline in the fuel tank affect engine performance?

- a. It increases fuel economy significantly
- b. It triggers the MIL immediately after startup
- c. It causes intermittent misfires and rough idle
- d. It damages the PCM permanently

10. What is the preferred method for clearing DTCs?

- a. Using a scan tool
- b. Disconnecting the battery
- c. Driving under freeze-frame conditions
- d. Manually resetting the PCM

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**Answer Key Quiz B**

**Correct Answers:**

1. a
2. b
3. c
4. b
5. b
6. d
7. a
8. c
9. c
10. a