

**Automotive Electrical and Engine Performance 9th Edition**  
**Chapter 2 – Strategy-Based Diagnosis**  
**Quiz B**

1. What is the first step in the eight-step diagnostic procedure?
  - a. Retrieve diagnostic trouble codes (DTCs)
  - b. Perform a thorough visual inspection
  - c. Verify the repair and clear stored DTCs
  - d. Verify the problem (concern)
  
2. Which parameter is commonly monitored using a scan tool during diagnostics?
  - a. Brake pad wear
  - b. Total fuel trim percentages
  - c. Cylinder compression levels
  - d. Manual transmission fluid pressure
  
3. What is the preferred method for clearing diagnostic trouble codes (DTCs)?
  - a. Disconnect the negative battery terminal for 20 minutes
  - b. Use a scan tool to reset the PCM
  - c. Cycle the ignition key off and on five times
  - d. Drive the vehicle for three cycles
  
4. When diagnosing intermittent malfunctions, what tool can provide useful historical data?
  - a. OBD-II universal drive cycle chart
  - b. Factory repair manuals
  - c. Freeze-frame data
  - d. Technical service bulletins (TSBs)

5. What is the function of a smoke machine in vehicle diagnostics?
  - a. Check oil levels in the engine system
  - b. Identify vacuum or air intake leaks
  - c. Test fuel injection pressures
  - d. Measure battery charge fluctuations
  
6. Which diagnostic step involves narrowing the issue to a specific system or cylinder?
  - a. Retrieve DTCs and review TSBs
  - b. Perform a drive cycle
  - c. Conduct system-specific tests and isolate the problem
  - d. Verify the repair and confirm root cause
  
7. Why is using a factory scan tool sometimes preferred?
  - a. It works faster than aftermarket tools
  - b. It offers brand-specific diagnostic functions
  - c. It is less expensive than generic tools
  - d. It operates without electrical power
  
8. What is a diagnostic trouble code (DTC) pending state?
  - a. The DTC has occurred but has not been repeated to illuminate the MIL
  - b. The MIL is illuminated, and the issue requires immediate attention
  - c. The DTC is related to non-emissions issues only
  - d. The vehicle is in a drive cycle and cannot store DTCs
  
9. What visual inspection step is crucial before starting diagnostic tests?
  - a. Test battery output at idle
  - b. Review fuel economy records
  - c. Check for disconnected or damaged vacuum hoses
  - d. Use a freeze-frame analyzer

10. Which is not a valid approach for resetting the PCM?
- a. Use a scan tool to clear stored codes
  - b. Drive the vehicle under similar conditions as the original fault
  - c. Disconnect the battery and press the brake pedal
  - d. Remove and reinstall the PCM's main fuse

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**Correct Answers:**

1. d

2. c

3. b

4. d

5. b

6. c

7. b

8. a

9. c

10. d