

Automotive Electrical and Engine Performance 9th Edition

Chapter 24 – Scan Tools

Multiple Choice Questions Quiz A

1. When performing a diagnostic test, the Malfunction Indicator Lamp (MIL) flashing indicates:
 - a) A severe fault that could damage the catalytic converter
 - b) A low battery warning
 - c) A minor emissions fault
 - d) The need for routine maintenance

2. The purpose of the freeze frame data in a diagnostic scan is to:
 - a) Reset all diagnostic trouble codes (DTCs)
 - b) Capture the specific engine parameters at the time a DTC was set
 - c) Clear readiness monitors
 - d) Display only active sensor readings

3. Technician A says a code reader can access and clear all system codes. Technician B says a code reader provides bi-directional testing capabilities. Who is correct?
 - a) Technician A only
 - b) Technician B only
 - c) Both Technician A and Technician B
 - d) Neither Technician A nor B

4. A generic DTC code starting with “P0xxx” represents:
 - a) Manufacturer-specific issues
 - b) A generic, emissions-related issue
 - c) An electrical fault outside emissions
 - d) An advanced calibration issue

5. When using an aftermarket scan tool, which of the following is recommended before entering vehicle-specific data?

- a) Perform a global scan to capture generic codes
- b) Disconnect the battery
- c) Manually set readiness monitors
- d) Reset all previous codes

6. The SAE J1962 standard requires the 16-pin data link connector (DLC) to be located:

- a) Near the center console
- b) Under the driver's side dashboard
- c) Behind the glove compartment
- d) On the driver's side seat base

7. A high-speed CAN communication protocol uses which DLC pins?

- a) 5 and 6
- b) 6 and 14
- c) 4 and 8
- d) 3 and 11

8. What does the "permanent" code feature introduced in 2010 entail?

- a) Codes that cannot be erased until the fault is resolved and the system passes self-tests
- b) Codes that can only be cleared using factory scan tools
- c) Codes that reset automatically after 10 key cycles
- d) Codes that store in the PCM for emission faults only

9. The main function of bi-directional controls on a scan tool is to:

- a) View sensor data in real time
- b) Enable control of specific actuators for testing purposes
- c) Automatically clear all DTCs in the system
- d) Permanently reset system readiness monitors

10. Technician A claims that performing a post-scan verifies all systems are functioning correctly after a repair. Technician B says post-scans only detect new codes generated during repairs. Who is correct?

a) Technician A only

b) Technician B only

c) Both Technician A and Technician B

d) Neither Technician A nor B

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Answer Key Quiz A

Correct Answers:

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