

Automotive Electrical and Engine Performance 9th Edition
Chapter 41 – EVAP and EGR Systems
Multiple Choice Questions Quiz A

1. What is the primary purpose of the evaporative emission control (EVAP) system in a vehicle?
 - a) To manage exhaust gas temperature
 - b) To reduce NOx emissions
 - c) To improve fuel economy
 - d) To prevent fuel vapors from escaping into the atmosphere

2. Technician A states that the canister purge valve in the EVAP system is normally open. Technician B states that the vent valve is closed only during testing by the PCM. Who is correct?
 - a) Technician A only
 - b) Technician B only
 - c) Both Technicians A and B
 - d) Neither Technician A nor B

3. In enhanced EVAP systems, what size leak must be detectable to meet the OBD-II standards starting from the year 2000?
 - a) 0.080 inches
 - b) 0.060 inches
 - c) 0.020 inches
 - d) 0.040 inches

4. The purpose of the leak detection pump (LDP) in certain EVAP systems is to:
 - a) Purge stored vapors into the intake manifold
 - b) Pressurize the fuel tank to test for leaks
 - c) Control the fuel vapor venting during refueling
 - d) Increase fuel pressure to prevent vapor lock

5. When a fuel tank pressure (FTP) sensor detects a vacuum during a closed purge cycle, this indicates:
- a) A possible blocked purge line
 - b) A functioning canister vent valve
 - c) An open purge valve allowing normal flow
 - d) Excessive pressure in the fuel tank
6. What is the role of the vent valve in an onboard refueling vapor recovery (ORVR) system?
- a) To allow outside air into the system during refueling
 - b) To increase fuel tank pressure during tests
 - c) To release excess fuel vapor to the atmosphere
 - d) To assist in rapid purging of the canister during acceleration
7. During an EVAP system test, the purge valve closes to create a completely sealed system. If pressure drops quickly, this may indicate:
- a) A properly functioning system
 - b) A large leak in the system
 - c) A defective fuel cap
 - d) Normal pressure stabilization
8. Technician A says that a small vacuum leak can cause the EVAP monitor to fail. Technician B says that the fuel tank level has no effect on the EVAP monitor's operation. Who is correct?
- a) Technician A only
 - b) Technician B only
 - c) Both Technicians A and B
 - d) Neither Technician A nor B

9. The fuel tank pressure (FTP) sensor in an EVAP system resembles which other automotive sensor in its design and function?

- a) Mass airflow (MAF) sensor
- b) Intake air temperature (IAT) sensor
- c) Manifold absolute pressure (MAP) sensor
- d) Throttle position (TP) sensor

10. A P0442 diagnostic trouble code (small leak detected) in an EVAP system may be triggered by:

- a) A stuck-open purge valve
- b) A defective fuel cap seal
- c) A short circuit in the vent solenoid
- d) Excessive purge flow during testing

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Answer Key Quiz A

Correct Answers:

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