

Name: _____

Date: _____

1. During an injector balance test all injectors drop 10 PSI except for one, which drops 20 PSI. What does this indicate?
 - A. The injector is functioning properly
 - B. There is a restriction in the injector
 - C. The injector is leaking
 - D. The injector is delivering fuel differently than others

2. The fuel pressure drops rapidly when the engine is turned off. Technician A says that one or more injectors could be leaking. Technician B says that a defective check valve in the fuel pump could be the cause. Which technician is correct?
 - A. Technician A only
 - B. Technician B only
 - C. Both Technicians A and B
 - D. Neither Technician A nor B

3. In a typical port fuel-injection system, which injectors are most subject to becoming restricted?
 - A. Any of them equally
 - B. The injectors at the end of the rail on a returnless system
 - C. The injectors at the bends in the rail
 - D. Either B or C

4. What component typically pulses the fuel injector on most vehicles?
 - A. Electronic control unit (computer)
 - B. Ignition module
 - C. Crankshaft sensor
 - D. Both B and C

5. If the throttle plate needs to be cleaned, what symptoms will be present regarding the operation of the engine?
 - A. Stalls
 - B. Rough idle
 - C. Hesitation on acceleration
 - D. Any of the above

6. What is the usual reading for the resistance of a relay coil in a fuel-pump relay circuit diagnosis?
 - A. Between 30 and 60 ohms
 - B. Between 60 and 100 ohms
 - C. Between 100 and 150 ohms
 - D. Between 150 and 200 ohms

7. What is the recommended pressure range for flushing the entire fuel rail and upper fuel-injector screens?
 - A. 50 to 75 PSI
 - B. 75 to 90 PSI
 - C. 90 to 105 PSI
 - D. 105 to 120 PSI

8. What is the purpose of running an injector balance test?
- A. To determine the electrical resistance of each injector
 - B. To determine which injector is restricted, inoperative, or delivering fuel differently
 - C. To check the fuel pressure in the rail
 - D. To test the fuel pump efficiency
9. What are the symptoms of hard cold starts in a fuel-injection system?
- A. Low fuel pressure, leaking fuel injectors, contaminated fuel, low-volatility fuel, dirty throttle plate
 - B. Insufficient fuel volume, restricted fuel injector, contaminated fuel, low-volatility fuel
 - C. Low fuel pressure, insufficient fuel volume, intake valve deposits, contaminated fuel, low-volatility fuel
 - D. All of the above
10. What is the best way to check injectors according to the Tech Tip in the chapter?
- A. Using a scan tool
 - B. Removing them from the engine and testing them using an injector tester
 - C. Performing a visual inspection
 - D. Checking the fuel pressure drop

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Chapter 78
Multiple Choice Quiz A
Answer Key

1. C
2. A
3. D
4. A
5. D
6. B
7. B
8. B
9. A
10. B