

Name \_\_\_\_\_

**MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.**

- 1) A \_\_\_\_\_ may be used to help locate high-pressure fuel leaks. 1) \_\_\_\_\_
  - A) Glove
  - B) Piece of cardboard
  - C) Shop towel
  - D) Rubber hose
  
- 2) What is the purpose and function of the volume control valve? 2) \_\_\_\_\_
  - A) It controls the volume of fuel from the low-pressure system into the high-pressure system.
  - B) It is controlled by the powertrain control module.
  - C) In the absence of a signal from the powertrain control module, it defaults to wide open.
  - D) All of the above
  
- 3) The high-pressure fuel system may generate as much as 29000 PSI. Fuel under this high pressure can \_\_\_\_\_, causing injury or death. 3) \_\_\_\_\_
  - A) Penetrate skin
  - B) Self-ignite
  - C) Create a toxic gas
  - D) All of these are possible
  
- 4) The cascade overflow valve is used to \_\_\_\_\_. 4) \_\_\_\_\_
  - A) Direct fuel to the pump lubrication circuit
  - B) Regulate the fuel pressure to the volume control valve
  - C) Divert excess fuel to the tank via the return line
  - D) All of the above
  
- 5) The fuel rail temperature sensor is used to \_\_\_\_\_. 5) \_\_\_\_\_
  - A) Calculate injector pulse width
  - B) Measure fuel velocity
  - C) Both A and B
  - D) Neither A nor B
  
- 6) Which of these injector types has a faster reaction time? 6) \_\_\_\_\_
  - A) Piezoelectric
  - B) Solenoid
  - C) Direct mechanical
  - D) Optical
  
- 7) After replacing an injector, the technician forgot to reprogram the engine controller. What problem might be noticed by the customer? 7) \_\_\_\_\_
  - A) A rough running engine
  - B) A no-start condition
  - C) Either of these
  - D) Neither of these

- 8) The high-pressure fuel pump in a common rail diesel fuel system may use a \_\_\_\_\_ piston-type pump. 8) \_\_\_\_\_
- A) Single
  - B) Multiple
  - C) Either A or B
  - D) Neither A nor B
- 9) Which of the following is NOT an advantage of the high-pressure common rail injection system? 9) \_\_\_\_\_
- A) Higher injection pressure
  - B) More injection events per combustion cycle
  - C) The ability to vary injection events with engine load and speed
  - D) The cost of the high-pressure fuel system components
- 10) What is the main function of the high-pressure rail on a common rail diesel engine? 10) \_\_\_\_\_
- A) Holds the cylinder head down
  - B) Keeps oil from leaking out of the valve covers
  - C) Reduces engine noise
  - D) Distributes pressurized fuel to the injectors

## Answer Key

Testname: LVDE1\_13A

1) B

Page Ref: 152

2) D

Page Ref: 148

3) A

Page Ref: 152

4) D

Page Ref: 148

5) C

Page Ref: 144

6) A

Page Ref: 150

7) A

Page Ref: 153

8) C

Page Ref: 146

9) D

Page Ref: 143

10) D

Page Ref: 144