

Name _____

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

- 1) Why is a DC-DC converter used in a diesel engine? 1) _____
 - A) The DC-DC converter provides the voltage needed to operate many high-pressure common rail injectors.
 - B) The DC-DC converter allows for the use of a single power supply.
 - C) Both A and B
 - D) Neither A Nor B

- 2) A _____ may be used to help locate high-pressure fuel leaks. 2) _____
 - A) Glove
 - B) Piece of cardboard
 - C) Shop towel
 - D) Rubber hose

- 3) Which of these does NOT have a role in regulating fuel rail pressure? 3) _____
 - A) Fuel rail pressure sensor
 - B) Fuel rail temperature sensor
 - C) Fuel pressure relief valve
 - D) Volume control valve

- 4) What is the purpose and function of the volume control valve? 4) _____
 - 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

- 5) After replacing an injector, the technician forgot to reprogram the engine controller. What problem might be noticed by the customer? 5) _____
 - A) A rough running engine
 - B) A no-start condition
 - C) Either of these
 - D) Neither of these

- 6) The DC-to-DC converter is required to step up voltage to as high as _____ volts to operate the injectors. 6) _____
 - A) 14
 - B) 250
 - C) 12
 - D) 5

- 7) The high pressure pump pistons are compressed by a(an) _____. 7) _____
- A) Spring
 - B) Drive gear
 - C) Eccentric cam
 - D) Solenoid
- 8) The components associated with the high-pressure common rail fuel tube are being discussed. Technician A states that the fuel rail pressure sensor communicates fuel pressure to the powertrain control module. Technician B states that the fuel pressure control valve is used to regulate the fuel pressure in the common rail. Which technician is correct? 8) _____
- A) Technician A only
 - B) Technician B only
 - C) Both technicians A and B
 - D) Neither technician 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) The high-pressure fuel pump in a common rail diesel fuel system may use a _____ piston-type pump. 10) _____
- A) Single
 - B) Multiple
 - C) Either A or B
 - D) Neither A nor B

Answer Key

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1) C

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2) B

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3) B

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4) D

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5) A

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6) B

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7) C

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8) C

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9) D

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10) C

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