



REVIEW QUESTIONS

1. What are the various types of fuel-injection systems?
2. What is the purpose of the vacuum-controlled (biased) fuel pressure regulator?
3. How many sensors are used to determine the base pulse width on a speed-density system?
4. How many sensors are used to determine the base pulse width on a mass airflow system?



1. Technician A says that the fuel pump relay is usually controlled by the PCM. Technician B says that a TBI injector squirts fuel above the throttle into air at atmospheric pressure. Which technician is correct?
 - a) Technician A only
 - b) Technician B only
 - c) Both Technicians A and B
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2. Technician A says that an electronic throttle control uses a DC motor. Technician B says that an electronic throttle control uses a throttle blade that is spring-loaded to about 16% to 20% throttle opening. Which technician is correct?
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3. Which fuel-injection system uses the MAP sensor as the primary sensor to determine the base pulse width?
- a) Speed density
 - b) Mass airflow
 - c) Demand delivery
 - d) Mechanical returnless



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4. Why is a vacuum line attached to a fuel-pressure regulator on many port-fuel-injected engines?
- a) To draw fuel back into the intake manifold through the vacuum hose
 - b) To create an equal pressure drop across the injectors
 - c) To raise the fuel pressure at idle
 - d) To lower the fuel pressure under heavy engine load conditions to help improve fuel economy



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5. Which sensor has the greatest influence on injector pulse width besides the MAF sensor?

- a) IAT
- b) BARO
- c) ECT
- d) TP



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6. Technician A says that the port fuel-injection injectors operate using 5 volts from the computer. Technician B says that sequential fuel injectors all use a different wire color on the injectors. Which technician is correct?
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7. Which type of port fuel-injection system uses a fuel temperature and/or fuel-pressure sensor?
- a) All port-fuel-injected engines
 - b) TBI units only
 - c) Electronic returnless systems
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8. Dampeners are used on some fuel rails to _____.
- a) Increase the fuel pressure in the rail
 - b) Reduce (decrease) the fuel pressure in the rail
 - c) Reduce noise
 - d) Trap dirt and keep it away from the injectors



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9. Where is the fuel-pressure regulator located on a vacuum-biased port fuel-injection system?
- a) In the tank
 - b) At the inlet of the fuel rail
 - c) At the outlet of the fuel rail
 - d) Near or on the fuel filter



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10. What type of device is used in a typical idle air control?

- a) DC motor
- b) Stepper motor
- c) Pulsator-type actuator
- d) Solenoid



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