

Name _____

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

- 1) Two technicians are discussing testing a catalytic converter. Technician A says that a vacuum gauge can be used and observed to see if the vacuum drops with the engine at 2500 RPM for 60 seconds. Technician B says that a pressure gauge can be used to check for backpressure. Which technician is correct? 1) _____
- A) Technician A
 - B) Technician B
 - C) Both technicians
 - D) Neither technician
- 2) Exhaust Gas Recirculation (EGR) is used to control _____. 2) _____
- A) NO_x
 - B) CO₂
 - C) HC
 - D) CO
- 3) Exhaust gas recirculation (EGR) is generally not needed under all the following conditions, EXCEPT _____. 3) _____
- A) Idle speed
 - B) Cold engine
 - C) Cruise speed
 - D) Wide open throttle (WOT)
- 4) Two technicians are discussing a catalytic converter. Technician A says the exhaust mixture must fluctuate between rich and lean for the best efficiency. Technician B says the air-fuel mixture must be leaner than 14.7:1 for best performance from a three-way catalytic converter. Which technician is correct? 4) _____
- A) Technician A
 - B) Technician B
 - C) Both technicians
 - D) Neither technician
- 5) What controls the electric air pump in a secondary air injection system? 5) _____
- A) The PCM
 - B) The PCV valve solenoid
 - C) A belt
 - D) A switch under the hood

- 6) Technician A says that recirculating 6 to 10% inert exhaust gases back into the intake system increases peak temperature inside the combustion chamber and reduces NO_x exhaust emissions. Technician B says that vacuum-operated EGR (Exhaust Gas Recirculation) valves are usually exhaust back pressure controlled to help match EGR flow into the intake with the load on the engine. Which technician is correct? 6) _____
- A) Technician A
 - B) Technician B
 - C) Both technicians
 - D) Neither technician
- 7) Before an evaporative emission monitor will run, the fuel level must be where? 7) _____
- A) At least 75% full
 - B) Over 25%
 - C) Between 15 and 85%
 - D) The level of the fuel in the tank is not needed to run the monitor test
- 8) A vehicle has a stored DTC P0440 (evap system fault). The most common cause of this is _____. 8) _____
- A) A bad spark plug
 - B) A clogged muffler
 - C) A loose gas cap
 - D) Incorrect octane gasoline
- 9) Technician A says that a low-restriction exhaust system could prevent a back pressure-type vacuum-controlled EGR (Exhaust Gas Recirculation) valve from opening correctly. Technician B says that a restricted exhaust can cause the EGR valve position sensor to fail. Which technician is correct? 9) _____
- A) Technician A
 - B) Technician B
 - C) Both technicians
 - D) Neither technician
- 10) Technician A says that as much as 50% of the air needed by the engine at idle speed flows through the PCV (positive crankcase ventilation) system. Technician B says that PCV tests include the rattle test, card test, snap-back test, and crankcase vacuum test. Which technician is correct? 10) _____
- A) Technician A
 - B) Technician B
 - C) Both technicians
 - D) Neither technician

Answer Key

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1) C

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2) A

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3) C

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4) A

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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) C

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10) B

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