

Name \_\_\_\_\_

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

- 1) Which type of EGR valve requires a positive exhaust system pressure to operate? 1) \_\_\_\_\_  
A) Positive backpressure  
B) Negative backpressure  
C) Linear  
D) Digital
  
- 2) Manually opening an EGR valve with a vacuum pump or scan tool will cause the engine to idle roughly or stall. 2) \_\_\_\_\_  
A) True  
B) False
  
- 3) At about what temperature does oxygen combine with the nitrogen in the air to form NOx? 3) \_\_\_\_\_  
A) 500 degrees F  
B) 750 degrees F  
C) 1500 degrees F  
D) 2500 degrees F
  
- 4) Which of the following are symptoms of a clogged EGR passage? 4) \_\_\_\_\_  
A) Detonation during acceleration or cruise  
B) Reduced NOx emissions  
C) Rough idle and stalling  
D) Poor performance and lack of power
  
- 5) Blocking off the EGR valve passages will have no effect on the OBD-II system. 5) \_\_\_\_\_  
A) True  
B) False
  
- 6) The following statements are all correct EXCEPT \_\_\_\_\_. 6) \_\_\_\_\_  
A) linear EGR systems require exhaust backpressure  
B) OBD-II vehicles require monitoring of the EGR system  
C) the MIL will be turned on after the second failure  
D) many vehicles use the MAP sensor to monitor EGR operation
  
- 7) What causes the nitrogen and oxygen in the air to combine and form NOx? 7) \_\_\_\_\_  
A) Sunlight  
B) Any spark will cause this to occur  
C) Heat above 2,500°F (1,370°C)  
D) Chemical reaction in the catalytic converter

- 8) A vehicle comes into the shop and the technician retrieves the diagnostic code P0401 "EGR flow insufficient." Which of these could be the cause? 8) \_\_\_\_\_
- A) Clogged EGR ports or passages
  - B) EGR valve stuck open
  - C) Electrical wiring shorted
  - D) All of these are correct.
- 9) When testing an EGR system for proper operation using a vacuum gauge, how much should intake manifold vacuum drop when the EGR valve is commanded open by a scan tool? 9) \_\_\_\_\_
- A) 6-8 in. Hg.
  - B) 1-2 in. Hg.
  - C) 6-8 PSI
  - D) 14.7 PSI
- 10) The linear EGR valve uses \_\_\_\_\_ to control the opening of the valve. 10) \_\_\_\_\_
- A) a pulse-width modulated solenoid
  - B) a vacuum
  - C) a pressure valve
  - D) none of these