

Name \_\_\_\_\_

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

- 1) Technician A says that pressure below atmospheric pressure is called vacuum and is measured in inches of mercury (Hg). Technician B says that a manifold absolute pressure (MAP) sensor uses a low vacuum in the sensor to determine the pressure. Who is right? 1) \_\_\_\_\_  
A) Technician A only  
B) Technician B only  
C) Both technicians  
D) Neither technician
- 2) Which statement is FALSE? 2) \_\_\_\_\_  
A) Absolute pressure is equal to barometric pressure plus intake manifold vacuum.  
B) A decrease in manifold vacuum means an increase in manifold pressure.  
C) The MAP sensor compares manifold vacuum to a perfect vacuum.  
D) Barometric pressure minus the MAP sensor reading equals intake manifold vacuum.
- 3) As the load on an engine increases, manifold vacuum decreases and the manifold absolute pressure \_\_\_\_\_. 3) \_\_\_\_\_  
A) increases  
B) decreases  
C) changes with barometric pressure only (altitude or weather)  
D) remains constant (absolute)
- 4) When testing a MAP sensor, the technician should first check the \_\_\_\_\_ voltage. 4) \_\_\_\_\_  
A) signal  
B) reference  
C) alternator  
D) back
- 5) Technician A says that a heavy engine load results in high intake manifold vacuum and a high MAP sensor signal voltage. Technician B says that a manifold absolute pressure (MAP) sensor uses a perfect vacuum (zero absolute pressure) in the sensor to determine the pressure. Who is right? 5) \_\_\_\_\_  
A) Technician A only  
B) Technician B only  
C) Both technicians  
D) Neither technician
- 6) A P0106 DTC is being discussed. Technician A says a damaged or missing MAP sensor O-ring could be the cause. Technician B says a defective MAP sensor could be the cause. Who is right? 6) \_\_\_\_\_  
A) Technician A only  
B) Technician B only  
C) Both technicians  
D) Neither technician

- 7) As the altitude of the vehicle increases, BARO voltage \_\_\_\_\_. 7) \_\_\_\_\_  
A) increases  
B) does not change  
C) decreases  
D) either B or C, depending on the vehicle
- 8) The output of a MAP sensor is reading 1.0 volt. What is the approximate engine vacuum in inches of mercury (Hg)? 8) \_\_\_\_\_  
A) 0  
B) 5  
C) 10-15  
D) 17-21
- 9) Two technicians are discussing MAP sensors. Technician A says that the MAP sensor should be replaced if anything comes out of the sensor when the vacuum hose is removed from the sensor. Technician B says that the injector pulse width should increase when vacuum to the MAP sensor is increased. Who is right? 9) \_\_\_\_\_  
A) Technician A only  
B) Technician B only  
C) Both technicians  
D) Neither technician
- 10) Two technicians are discussing testing MAP sensors. Technician A says that the MAP sensor voltage on a General Motors vehicle at idle should be about 1.0 volt. Technician B says that the MAP sensor voltage on a Chrysler vehicle at idle should be about 1.0 volt. Which technician is correct? 10) \_\_\_\_\_  
A) Technician A only  
B) Technician B only  
C) Both technicians  
D) Neither technician

## Answer Key

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- 1) A  
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- 2) A  
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- 3) A  
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- 4) B  
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- 5) B  
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- 6) C  
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- 7) C  
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- 8) D  
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- 9) A  
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- 10) C  
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