Automotive Technology 7th Edition
Chapter 72
Multiple Choice Quiz A

Name: _____ Date: _____

1. As the load on an engine increases, the manifold vacuum decreases and the manifold absolute pressure _____.
A. increases
B. decreases
C. changes with barometric pressure only (altitude or weather)
D. remains constant (absolute)

2. A typical MAP sensor compares the vacuum in the intake manifold to _____.
A. atmospheric pressure
B. a perfect vacuum
C. barometric pressure
D. the value of the IAT sensor

3. Which statement is false?
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.

4. A MAP sensor can be tested using _____.
A. a scope
B. a scan tool
C. a DMM
D. Any of these

5. Which is NOT a purpose or function of the MAP sensor?
A. Measures the load on the engine
B. Measures engine speed
C. Calculates fuel delivery based on altitude
D. Assists in EGR system diagnosis

6. If the MAF sensor fails, the PCM uses what to calculate fuel delivery needs?
A. MAP and throttle position
B. RPM and throttle position
C. Throttle position and transmission RPM
D. RPM alone

7. Air that enters the engine without passing through the airflow sensor is called _____.
A. bypass air
B. dirty air
C. false air
D. measured air

8. Two technicians are diagnosing a poorly running engine. There are no diagnostic trouble codes. When the MAF sensor is unplugged, the engine runs better. Technician A says that this means that the MAF is supplying incorrect airflow information to the PCM. Technician B says that this indicates that the PCM is defective. Which technician is correct?
A. Technician A only
B. Technician B only
C. Both Technicians A and B
D. Neither Technician A nor B

9. What is the relationship between atmospheric pressure and engine vacuum?
A. Directly proportional
B. Inversely proportional
C. No relationship
D. Equal at sea level

10. What change in the signal will occur if engine speed is increased?
A. The signal voltage decreases
B. The signal frequency increases
C. The signal frequency decreases
D. No change in the signal

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Answer Key

1. A

2. A

3. C

4. D

5. B

6. B

7. C

8. A

9. B

10. B