Automotive Electrical and Engine Performance, 8th Edition
Quiz 33B

Name_____

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

1) 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 MAP sensor uses a perfect vacuum (zero absolute pressure) in the sensor to determine the pressure. Which technician is correct? 1) _____
   A) Technician A only
   B) Technician B only
   C) Both technicians
   D) Neither technician

2) Which is NOT a purpose or function of the MAP sensor? 2) _____
   A) Measures engine load
   B) Measures engine speed
   C) Calculates fuel delivery based on altitude
   D) Helps diagnose the EGR system

3) Which design of MAP sensor is used on turbocharged or supercharged engines? 3) _____
   A) Manaifold absolute pressure (MAP) sensor
   B) Manifold absolute pressure sensor plus barometric absolute pressure (BARO) sensor
   C) Barometric and manifold absolute pressure sensors combined (BMAP)
   D) A MAP sensor calibrated for pressures above atmospheric

4) The opening of the EGR valve pintle does NOT cause a change in the MAP sensor reading. This could cause _____. 4) _____
   A) An EGR flow rate DTC to set
   B) The transmission to downshift
   C) The engine to stall
   D) A high idle speed

5) Technician A says that a MAP sensor can be tested by visual inspection, testing the output using a digital meter, or a scan tool. Technician B says that a light engine load results in low intake manifold vacuum and a high MAP sensor signal voltage. Which technician is correct? 5) _____
   A) Technician A only
   B) Technician B only
   C) Both technicians
   D) Neither technician

6) The MAP and BARO sensor may be the same sensor. 6) _____
   A) True
   B) False

7) A P0107 DTC is being discussed. Technician A says that a defective MAP sensor could be the cause. Technician B says that a MAP sensor signal wire shorted-to-ground could be the cause. Which technician is correct? 7) _____

A) Technician A only
B) Technician B only
C) Both technicians
D) Neither technician

8) Vacuum is measured in what unit of pressure? 8) _____

A) pounds per square inch (PSI)
B) Inches of mercury (inch Hg)
C) PSIA
D) PSIG

9) A P0108 DTC is being discussed. Technician A says a MAP sensor O-ring damaged or missing could be the cause. Technician B says the MAP sensor signal circuit shorted-to-ground could be the cause. Which technician is correct? 9) _____

A) Technician A only
B) Technician B only
C) Both technicians
D) Neither technician

10) The MAP sensor is used to check the operation of the _____ on OBD II vehicles. 10) _____

A) TP sensor
B) EGR system
C) Backup system
D) Main system

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