

Name _____

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

- 1) A P0102 DTC is being discussed. Technician A says that a sensor circuit shorted-to-ground can be the cause. Technician B says that an open sensor voltage supply circuit could be the cause. Who is right? 1) _____
 - A) Technician A only
 - B) Technician B only
 - C) Both technicians
 - D) Neither technician

- 2) A vehicle runs fine when in reverse yet has a rough idle and stalling when put in drive. This could be caused by _____. 2) _____
 - A) excessive fuel pressure
 - B) incorrect idle speed
 - C) a cracked air inlet hose
 - D) a missing spark plug

- 3) Which of the following components measures the volume and density of the incoming air? 3) _____
 - A) Oxygen Sensor
 - B) Throttle Position Sensor
 - C) Mass Air Flow Sensor
 - D) Manifold Absolute Pressure Sensor

- 4) The MAF sensor is used mostly to determine the amount of _____ to deliver to the engine. 4) _____
 - A) vacuum correction
 - B) idle air
 - C) spark advance
 - D) fuel

- 5) A fuel injection system that does not use a sensor to measure the amount (or mass) of air entering the engine is usually called a(n) _____ type of system 5) _____
 - A) air vane controlled
 - B) speed density
 - C) mass air flow
 - D) hot wire

- 6) The MAF sensor on a General Motors 3800 V-6 is being tested for contamination. Technician A says that the sensor should show over 100 grams per second on a scan tool display when the accelerator is depressed to WOT (wide open throttle) on a running engine. Technician B says that the output frequency should exceed 7000 Hz when the accelerator pedal is depressed to WOT on a running engine. Who is right? 6) _____
 - A) Technician A only
 - B) Technician B only
 - C) Both technicians
 - D) Neither technician

- 7) Technician A says that a MAF sensor is a high-authority sensor and is responsible for determining the fuel needs of the engine based on the measured amount of air entering the engine. Technician B says that a cold wire MAF sensor uses the electronics in the sensor itself to heat a wire 20°C below the temperature of the air entering the engine. Who is right? 7) _____
- A) Technician A only
 - B) Technician B only
 - C) Both technicians
 - D) Neither technician
- 8) If the MAF sensor fails, the PCM uses _____ to calculate fuel delivery needs. 8) _____
- A) MAP and throttle position
 - B) RPM and throttle position
 - C) throttle position and transmission RPM
 - D) RPM alone
- 9) Which type of sensor uses a burn-off circuit? 9) _____
- A) Hot wire MAF sensor
 - B) Hot film MAF sensor
 - C) Vane type airflow sensor
 - D) Both A and B
- 10) Technician A says that a MAF sensor actually measures the density and amount of air flowing into the engine. Technician B says a that hot wire MAF sensor uses the electronics in the sensor itself to heat a wire 70°C above the temperature of the air entering the engine. Who is right? 10) _____
- A) Technician A only
 - B) Technician B only
 - C) Both technicians
 - D) Neither technician

Answer Key

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1) C

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2) C

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3) C

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4) D

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5) B

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6) C

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7) A

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8) B

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9) A

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10) C

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