

Name \_\_\_\_\_

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

- 1) A P0100 DTC is being discussed. Technician A says that an open or short in mass air flow circuit could be the cause. Technician B says that a defective MAF sensor could be the cause. Which technician is correct? 1) \_\_\_\_\_
  - A) Technician A only
  - B) Technician B only
  - C) Both technicians
  - D) Neither technician
  
- 2) Air that enters the engine without passing through the airflow sensor is called \_\_\_\_\_. 2) \_\_\_\_\_
  - A) bypass air
  - B) dirty air
  - C) false air
  - D) measured air
  
- 3) If the frequency output of a MAF is plotted on a graph along with engine RPM the resulting lines should be \_\_\_\_\_. 3) \_\_\_\_\_
  - A) A straight line
  - B) A parabola
  - C) A sharp curve
  - D) In opposite directions
  
- 4) Technician A says that a MAF sensor actually measures the density and amount of air flowing into the engine, which results in accurate engine control. Technician B says that a 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. Which technician is correct? 4) \_\_\_\_\_
  - A) Technician A only
  - B) Technician B only
  - C) Both technicians
  - D) Neither technician
  
- 5) The typical MAF reading on a scan tool with the engine at idle speed and normal operating temperature is \_\_\_\_\_. 5) \_\_\_\_\_
  - A) 1-3 grams per second
  - B) 3-7 grams per second
  - C) 8-12 grams per second
  - D) 15-24 grams per second
  
- 6) 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. Which technician is correct? 6) \_\_\_\_\_
  - A) Technician A only
  - B) Technician B only
  - C) Both technicians
  - D) Neither technician

- 7) MAF sensor electrical connectors should be checked for all of these, EXCEPT \_\_\_\_\_. 7) \_\_\_\_\_
- A) Corrosion
  - B) Terminals bent or pushed out of the plastic connector
  - C) Frayed wiring
  - D) Tight connectors
- 8) Two technicians are discussing Karman Vortex sensors. Technician A says that they contain a burn-off circuit to keep them clean. Technician B says that they contain a movable vane. Which technician is correct? 8) \_\_\_\_\_
- A) Technician A only
  - B) Technician B only
  - C) Both technicians
  - D) Neither technician
- 9) 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 the MAF is supplying incorrect air flow information to the PCM. Technician B says that this indicates the PCM is defective. Which technician is correct? 9) \_\_\_\_\_
- A) Technician A only
  - B) Technician B only
  - C) Both technicians
  - D) Neither technician
- 10) A 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. 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) C  
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- 2) C  
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- 3) A  
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- 4) C  
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- 5) B  
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- 6) C  
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- 7) D  
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- 8) D  
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- 9) A  
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- 10) C  
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