

Name _____

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

- 1) Which airflow sensor has a dampening chamber? 1) _____
 - A) A vane airflow
 - B) A hot film MAF
 - C) A hot wire MAF
 - D) A Karman Vortex

- 2) 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. Which technician is correct? 2) _____
 - A) Technician A only
 - B) Technician B only
 - C) Both technicians
 - D) Neither technician

- 3) Which of these can be used to measure the frequency (Hz) output of the sensor and compare the reading with specifications? 3) _____
 - A) DMM (digital multimeter)
 - B) Megohmmeter
 - C) Logic Probe
 - D) High impedance test light

- 4) Which of the following components measures the volume and density of the incoming air? 4) _____
 - A) O2S
 - B) TP Sensor
 - C) MAF Sensor
 - D) MAP Sensor

- 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) 15-25 grams per second

- 6) 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? 6) _____
 - A) Technician A only
 - B) Technician B only
 - C) Both technicians
 - D) Neither technician

- 7) 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? 7) _____
- A) Technician A only
 - B) Technician B only
 - C) Both technicians
 - D) Neither technician
- 8) If the frequency output of a MAF is plotted on a graph along with engine RPM the resulting lines should be _____. 8) _____
- A) A straight line
 - B) A parabola
 - C) A sharp curve
 - D) In opposite directions
- 9) 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? 9) _____
- A) Technician A only
 - B) Technician B only
 - C) Both technicians
 - D) Neither technician
- 10) Air that enters the engine without passing through the airflow sensor is called _____. 10) _____
- A) Bypass air
 - B) Dirty air
 - C) False air
 - D) Measured air

Answer Key

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- 1) A
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- 3) A
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- 4) C
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- 5) B
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- 6) D
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- 7) A
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