

Name \_\_\_\_\_

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

- 1) Technician A says that an oxygen sensor produces a voltage output signal based on the oxygen content of the exhaust stream. Technician B says that if the exhaust has little oxygen the voltage of the oxygen sensor will be close to 0 volts. Which technician is correct? 1) \_\_\_\_\_
  - A) Technician A only
  - B) Technician B only
  - C) Both technicians
  - D) Neither technician
  
- 2) A large amount of oxygen in the exhaust system causes the O2S (oxygen sensor) to produce which of these? 2) \_\_\_\_\_
  - A) High voltage
  - B) Low voltage
  - C) False readings
  - D) Abnormal readings
  
- 3) It is possible to test a heated oxygen sensor without running the engine. 3) \_\_\_\_\_
  - A) True
  - B) False
  
- 4) A low O2S voltage could be due to \_\_\_\_\_. 4) \_\_\_\_\_
  - A) A rich exhaust
  - B) A lean exhaust
  - C) A defective spark plug wire
  - D) Both B and C
  
- 5) A heated zirconia oxygen sensor will have how many wires? 5) \_\_\_\_\_
  - A) 2
  - B) 3
  - C) 4
  - D) Either B or C
  
- 6) A high O2S voltage could be due to \_\_\_\_\_. 6) \_\_\_\_\_
  - A) A rich exhaust
  - B) A lean exhaust
  - C) A defective spark plug wire
  - D) Both A and C

7) With the vehicle in closed loop, the following post converter HO2S scope pattern activity is seen. 7) \_\_\_\_\_  
 What does this indicate?



- A) A good converter
- B) A bad converter
- C) A missing converter
- D) A lazy converter

8) A P0131 DTC is being discussed. Technician A says that an exhaust leak upstream of HO2S (bank 1) oxygen sensor could be the cause. Technician B says an extremely rich air-fuel mixture could be the cause. Which technician is correct? 8) \_\_\_\_\_

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

9) When testing an oxygen sensor using a DSO (digital storage oscilloscope), how quickly should the voltage change when either propane is added to the intake stream or when a vacuum leak is created? 9) \_\_\_\_\_

- A) Less than 50 ms
- B) 1-3 seconds
- C) Less than 100 ms
- D) 100 to 200 ms

10) A P0132 DTC is being discussed. Technician A says that a defective HO2S could be the cause. Technician B says that an HO2S signal wire shorted-to-ground could be the cause. 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) A

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2) B

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3) A

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4) D

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5) D

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6) A

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7) A

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8) A

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9) C

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10) A

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