

Name _____

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

- 1) When testing the ECT sensor with the connector disconnected, the technician should select what position on the DMM? 1) _____
 - A) AC volts
 - B) DC volts
 - C) Ohms
 - D) Hz (hertz)

- 2) The IAT is being tested. After the vehicle has been allowed to cool for several hours, a scan tool is used to observe the IAT, and compare it to the engine coolant temperature (ECT). The two temperatures should be within how many degrees F of each other? 2) _____
 - A) 5
 - B) 10
 - C) 15
 - D) 25

- 3) Technician A says that other temperature sensors that operate like the ECT include transmission fluid temperature (TFT), and engine oil temperature sensors. Technician B says that all temperature sensors increase in resistance as the temperature decreases. Who is right? 3) _____
 - A) Technician A only
 - B) Technician B only
 - C) Both technicians
 - D) Neither technician

- 4) The sensor that most determines fuel delivery when a fuel injected engine is first started is the _____. 4) _____
 - A) O2S
 - B) ECT sensor
 - C) engine MAP sensor
 - D) IAT sensor

- 5) A P0113 DTC is being discussed. Technician A says that the IAT sensor could be internally (electrically) shorted. Technician B says that the PCM could be defective. Who is right? 5) _____
 - A) Technician A only
 - B) Technician B only
 - C) Both technicians
 - D) Neither technician

- 6) Technician A says that the ECT and IAT sensors can be tested visually, as well as by using a digital multimeter or a scan tool. Technician B says that the ECT sensor is a high-authority sensor at engine start-up and is used for open-loop control, as well as idle speed. Who is right? 6) _____
 - A) Technician A only
 - B) Technician B only
 - C) Both technicians
 - D) Neither technician

- 7) A P0117 DTC is being discussed. Technician A says that the ECT sensor could be internally shorted to ground. Technician B says that the signal wire could be open. Who is right? 7) _____
- A) Technician A only
 - B) Technician B only
 - C) Both technicians
 - D) Neither technician
- 8) Two technicians are discussing a stepped ECT circuit. Technician A says that the sensor used for a stepped circuit is different from the one used in a non-stepped circuit. Technician B says that a stepped ECT circuit uses different internal resistance inside the PCM. Who is right? 8) _____
- A) Technician A only
 - B) Technician B only
 - C) Both technicians
 - D) Neither technician
- 9) When testing an ECT sensor on a vehicle, a digital multimeter can be used and the signal wires back probed. What setting should the technician use to test the sensor? 9) _____
- A) AC volts
 - B) DC volts
 - C) Ohms
 - D) Hz (hertz)
- 10) A typical IAT or ECT sensor reads about 3000 ohms when tested using a DMM. This resistance represents a temperature of about _____. 10) _____
- A) -40° F (-40° C)
 - B) 70° F (20° C)
 - C) 120° F (50° C)
 - D) 284° F (140° C)