Automotive Technology 6th Edition
Chapter 74 - Temperature Sensors
Chapter 74

Name_____

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

1) How does a typical NTC temperature sensor work?

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2) What are the three ways that temperature sensors can be tested?

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3) What is the difference between a stepped and a non-stepped ECT circuit?

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4) What temperature should be displayed on a scan tool if the ECT sensor is unplugged with the key on, engine off?

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5) If the transmission fluid temperature (TFT) sensor were to fail open (as if it were unplugged), what would the PCM do to the transmission shifting points?

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1) A typical NTC sensor decreases in resistance as the temperature increases. In other words, it becomes more electrically conductive as the temperature incr
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2) Temperature sensors can be tested by visual inspection, resistance, and by using a scan tool to monitor the operation (reading) of the sensor as the engine operates.
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3) A stepped ECT circuit uses a pull-up resistor inside the PCM to give the ECT a broader, more accurate reading of the coolant temperature. A non-stepped ETC sensor does not have this pull-up resistor.
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4) If the ECT is unplugged, a scan tool will display —40°F (—40°C).
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5) If the TFT sensor were to fail open, the automatic transmission would likely have the shift points delayed to help assist in the heating of the fluid.
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