Automotive Technology 6th Edition
Chapter 90

Name_____

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

1) Explain the procedure to follow when diagnosing a vehicle with stored DTCs using a scan tool.

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2) Explain why a bulletin search should be performed after stored DTCs are retrieved.

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3) Explain the difference between a type A and type B OBD-II diagnostic trouble code.

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4) Discuss what the PCM does during a drive cycle to test emissions-related components.

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5) List three things that should be checked as part of a thorough visual inspection.

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1) Using a scan tool, check the ECT equals IAT to KOED and look carefully at all major sensors and compare the readings to the normal reading that would be accepted.
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2) Many TSBs refer to problems that could have certain diagnostic trouble codes (DTCs).
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3) • TYPE A CODES. A type A diagnostic trouble code is emissions related and causes the MIL to be turned on at the first trip if the computer has detected a problem. Engine misfire or a very rich or lean air–fuel ratio, for example, causes a type A DTC. These codes alert the driver to an emissions problem that may cause damage to the catalytic converter.
• TYPE B CODES. A type B code is stored and the MIL is turned on during the second consecutive trip, alerting the driver to the fact that a diagnostic test was performed and failed.
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4) The vehicle must be driven under a variety of operating conditions for all active tests to be performed. A trip is defined as an engine-operating drive cycle that contains the necessary conditions for a particular test to be performed. For example, for the EGR test to be performed, the engine has to be at normal operating temperature and decelerating for a minimum amount of time. Some tests are performed when the engine is cold, whereas others require that the vehicle be cruising at a steady highway speed.
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5) • Check for obvious problems
• Check everything that does and does not work.
• Look for evidence of previous repairs.
• Check oil level and condition.
• Check coolant level and condition.
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