Automotive Electrical and Engine Performance 9th Edition
Chapter 10 – Global OBD-II and Mode $06
Quiz B

1. What are the primary advantages of Global OBD-II over OEM-specific systems?

a. Provides enhanced scan tool data with proprietary codes

b. Offers standardized formats accessible across vehicle makes

c. Uses non-standard hexadecimal coding for simpler analysis

d. Focuses exclusively on continuously monitored systems

2. Which OBD-II mode is used to monitor noncontinuous system test results?

a. Mode $01

b. Mode $04

c. Mode $06

d. Mode $09

3. What is the purpose of hexadecimal numbers in OBD-II diagnostics?

a. To simplify manual data entry during system checks

b. To allow compatibility with non-standardized monitors

c. To convert sensor data into comprehensible English descriptions

d. To represent test IDs and results in a standardized format

4. What does a 'fail' result in Mode $06 typically indicate?

a. An incomplete onboard diagnostic cycle

b. A monitored test exceeded its specified limits

c. Incorrect configuration of bidirectional controls

d. Insufficient system readiness

5. Which OBD-II mode provides the functionality to clear DTCs and reset freeze-frame data?

a. Mode $05

b. Mode $04

c. Mode $06

d. Mode $10

6. How does Mode $06 assist technicians in predicting future DTCs?

a. By calculating the probability of pending fault occurrences

b. By providing a breakdown of misfire percentages

c. By showing results close to failure thresholds before DTCs are set

d. By monitoring non-volatile memory for unresolved errors

7. What is the significance of permanent fault codes in OBD-II systems?

a. They can be cleared only by using a factory scan tool

b. They persist until manually erased through Mode $06

c. They override pending codes until battery disconnection

d. They ensure proper repair by clearing only after self-test success

8. Which scan tool feature enables conversion of hexadecimal Mode $06 data into usable results?

a. Factory calibration

b. Diagnostic executive

c. Auto Enginuity software

d. Rationality monitors

9. What diagnostic information is conveyed by TID $05 in Mode $06?

a. Oxygen sensor performance

b. Catalyst efficiency

c. Misfire percentage

d. Short-term fuel trim

10. Why might a technician prefer Mode $06 data over traditional oscilloscope testing?

a. It provides time-stamped analysis for all diagnostic monitors

b. It eliminates the need for waveform visualization in oxygen sensor tests

c. It focuses exclusively on current powertrain data

d. It ensures real-time bidirectional system controls

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Correct Answers:

1. b

2. a

3. c

4. b

5. b

6. c

7. d

8. c

9. a

10. b