

# PRACTICE EXAM 6: A8 SIMULATION

## — ENGINE PERFORMANCE

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1. A vehicle has been brought in with the following findings: complaint of multiple drivability symptoms, multiple stored DTCs across multiple modules, and the engine ECM is not communicating on the CAN bus. The MOST likely cause is:

- A. A worn power steering pulley
- B. CAN bus communication fault, ECM fault, or open circuit in module power or ground
- C. A worn ball joint
- D. Air in the clutch hydraulic system

2. The proper procedure for diagnosing an ECM CAN bus communication fault is to:

- A. Apply compressed air to the system
- B. Replace the ECM as the most direct repair
- C. Replace the brake fluid as the only step
- D. Use a scan tool to verify CAN bus communication, check for network DTCs, inspect bus wiring

3. A vehicle equipped with hybrid technology has been brought in for engine performance diagnosis. The proper purpose of hybrid integration with engine performance is to:

- A. Coordinate engine operation with electric motor for optimal efficiency and emissions
- B. Apply compressed air to the system
- C. Replace the hybrid system as a precaution
- D. Filter contaminants from the system

4. The proper procedure for diagnosing hybrid engine performance issues is to:

- A. Apply compressed air to the system
- B. Replace the hybrid system as a precaution
- C. Verify the concern, retrieve DTCs, follow manufacturer-specified procedure with proper PPE
- D. Replace the brake fluid as the only step

5. A vehicle equipped with hybrid technology has been brought in with a complaint of engine starting issues at stop-start transitions. The MOST likely cause is:

- A. Apply compressed air to the system
- B. A failed hybrid starter system, fault in the high-voltage system, or fault in the hybrid integration
- C. Replace the engine as a precaution
- D. Replace the brake fluid as the only step

6. The proper procedure for diagnosing hybrid engine restart faults is to:

- A. Apply compressed air to the system
- B. Replace the engine as a precaution
- C. Replace the hybrid system as a precaution
- D. Verify the concern, retrieve DTCs, follow manufacturer procedure with PPE, identify the cause

7. A vehicle equipped with EV technology has been brought in with a complaint of range extender engine issues. The MOST likely cause is:

- A. A failed range extender engine, fault in the EV control system, or fault in the engine integration
- B. Apply compressed air to the system
- C. Replace the engine as a precaution

D. Replace the brake fluid as the only step

8. The proper procedure for diagnosing range extender engine faults is to:

A. Apply compressed air to the system

B. Replace the engine as a precaution

C. Replace the EV system as a precaution

D. Verify the concern, follow manufacturer-specified procedure with proper PPE, identify the cause

9. A vehicle equipped with a gasoline particulate filter (GPF) has been brought in for diagnosis. The proper purpose of a GPF is to:

A. Apply compressed air to the system

B. Replace the GPF as a precaution

C. Capture particulate matter from gasoline engine exhaust to reduce emissions

D. Filter contaminants from the system

10. The proper procedure for diagnosing GPF system faults is to:

A. Apply compressed air to the GPF

B. Verify the concern, retrieve DTCs, monitor scan data for GPF, identify the cause

C. Replace the GPF as a precaution

D. Replace the brake fluid as the only step

11. A vehicle equipped with low-pressure EGR has been brought in for diagnosis. The proper purpose of low-pressure EGR is to:

A. Apply compressed air to the system

- B. Replace the system as a precaution
- C. Recirculate exhaust from after the catalytic converter for improved emissions and efficiency
- D. Filter contaminants from the system

12. The proper procedure for diagnosing low-pressure EGR faults is to:

- A. Verify the concern, retrieve DTCs, monitor EGR scan data, identify the cause
- B. Apply compressed air to the system
- C. Replace the EGR system as a precaution
- D. Replace the brake fluid as the only step

13. A vehicle has been brought in with a complaint of engine performance issues only at high altitudes. The MOST likely cause is:

- A. Apply compressed air to the system
- B. Replace the engine as a precaution
- C. Replace the affected components as a precaution
- D. Altitude-related operating condition affecting fuel mixture, ignition timing, or component performance

14. The proper procedure for diagnosing altitude-related engine performance issues is to:

- A. Apply compressed air to the system
- B. Verify the symptom under matching altitude conditions, monitor scan data, identify the cause
- C. Replace the engine as a precaution
- D. Replace the brake fluid as the only step

15. A vehicle has been brought in with a complaint of engine performance issues only after extended operation. The MOST likely cause is:

- A. Apply compressed air to the system
- B. Replace the engine as a precaution
- C. Replace the affected components as a precaution
- D. Heat-related component sensitivity, sensor drift, or thermal expansion-related issue

16. The proper procedure for diagnosing extended-operation engine performance issues is to:

- A. Verify the symptom under matching extended operation conditions, monitor scan data
- B. Apply compressed air to the system
- C. Replace the engine as a precaution
- D. Replace the brake fluid as the only step

17. A vehicle has been brought in with a complaint of engine performance issues following a major service. The MOST likely cause is:

- A. Apply compressed air to the system
- B. Replace the engine as a precaution
- C. Service-related issue (improper installation, wrong parts, calibration loss, or procedure error)
- D. Replace the brake fluid as the only step

18. The proper procedure for diagnosing post-service engine issues is to:

- A. Apply compressed air to the system
- B. Verify the concern, identify potential service-related causes, address the cause
- C. Replace the affected components as a precaution

D. Replace the brake fluid as the only step

19. A vehicle equipped with telematics integration has been brought in with a complaint of engine performance affecting connected services. The MOST likely cause is:

A. A failed telematics module, fault in the engine integration, or fault in connectivity

B. Apply compressed air to the system

C. Replace the telematics module as a precaution

D. Replace the brake fluid as the only step

20. The proper procedure for diagnosing engine performance and telematics integration is to:

A. Apply compressed air to the system

B. Replace the telematics module as the most direct repair

C. Replace the brake fluid as the only step

D. Verify the concern, retrieve DTCs, verify telematics operation, verify engine operation

21. A vehicle equipped with OTA (over-the-air) software updates has been brought in with a complaint of engine performance issues that began after an OTA update. The MOST likely cause is:

A. Apply compressed air to the system

B. Replace the engine ECM as a precaution

C. The update may have introduced an issue requiring rollback or further update

D. Replace the brake fluid as the only step

22. The proper procedure for addressing post-OTA engine issues is to:

A. Apply compressed air to the system

- B. Verify the update completed, contact the manufacturer if issues persist, follow recommended procedure
- C. Replace the engine ECM as a precaution
- D. Replace the brake fluid as the only step

23. A vehicle has been brought in with a complaint of engine performance issues that occur only when the vehicle is in motion. The MOST likely cause is:

- A. Apply compressed air to the system
- B. Replace the engine as a precaution
- C. Replace the brake fluid as the only step
- D. A vibration-related issue, marginal connection, or component movement during operation

24. The proper procedure for diagnosing motion-related engine performance issues is to:

- A. Verify the symptom during motion, perform wiggle testing during operation, identify the cause
- B. Apply compressed air to the system
- C. Replace the affected components as a precaution
- D. Replace the brake fluid as the only step

25. A vehicle has been brought in with a complaint of engine performance issues that affect transmission operation. The MOST likely cause is:

- A. Apply compressed air to the system
- B. Replace the engine and transmission as a precaution
- C. Engine performance affecting transmission control inputs, or transmission fault affecting engine
- D. Replace the brake fluid as the only step

26. The proper procedure for diagnosing engine and transmission interaction issues is to:

- A. Apply compressed air to the system
- B. Verify the concern, retrieve DTCs from both modules, identify common causes
- C. Replace the affected systems as a precaution
- D. Replace the brake fluid as the only step

27. A vehicle has been brought in with a complaint of engine performance issues that affect ABS/stability operation. The MOST likely cause is:

- A. Apply compressed air to the system
- B. Replace the engine as a precaution
- C. Engine performance affecting torque control, or shared sensor inputs causing both faults
- D. Replace the brake fluid as the only step

28. The proper procedure for diagnosing engine and stability system interactions is to:

- A. Verify the concern, retrieve DTCs from both modules, identify common causes
- B. Apply compressed air to the system
- C. Replace the affected systems as a precaution
- D. Replace the brake fluid as the only step

29. A vehicle has been brought in with a complaint of engine performance issues following a battery replacement. The MOST likely cause is:

- A. Apply compressed air to the system
- B. Replace the ECM as a precaution
- C. Replace the brake fluid as the only step

D. Calibration loss requiring relearn (idle, fuel trim, throttle, or transmission adaptive learn)

30. The proper procedure for performing engine relearn after battery replacement is to:

A. Apply compressed air to the system

B. Replace the ECM as a precaution

C. Replace the brake fluid as the only step

D. Identify required relearn procedures, perform each manufacturer-specified procedure, verify operation

31. A vehicle has been brought in with a complaint of engine performance issues that affect fuel economy. The MOST likely cause is:

A. Apply compressed air to the system

B. Multiple potential causes (sensor failures, mechanical issues, fuel system, ignition system)

C. Replace the engine as a precaution

D. Replace the brake fluid as the only step

32. The proper procedure for diagnosing fuel economy issues is to:

A. Apply compressed air to the system

B. Replace the affected components as a precaution

C. Verify the concern, retrieve DTCs, monitor fuel trims and operating data, identify the cause

D. Replace the brake fluid as the only step

33. A vehicle has been brought in with a complaint of engine performance issues that affect emissions test results. The MOST likely cause is:

A. Multiple potential causes affecting OBD-II monitor completion or emission control efficiency

- B. Apply compressed air to the system
- C. Replace the affected components as a precaution
- D. Replace the brake fluid as the only step

34. The proper procedure for diagnosing emissions-related engine performance is to:

- A. Apply compressed air to the system
- B. Replace the affected components as a precaution
- C. Verify the concern, retrieve DTCs, monitor monitor readiness, identify the cause
- D. Replace the brake fluid as the only step

35. A vehicle has been brought in with a complaint of engine performance issues that began after a fuel fill-up. The MOST likely cause is:

- A. Apply compressed air to the system
- B. Fuel quality issue (contamination, wrong octane, water in fuel, or contaminated station fuel)
- C. Replace the fuel system as a precaution
- D. Replace the brake fluid as the only step

36. The proper procedure for diagnosing post-fuel-fill engine issues is to:

- A. Apply compressed air to the system
- B. Replace the fuel system as a precaution
- C. Replace the brake fluid as the only step
- D. Verify the concern, sample the fuel, identify contamination if present, address the cause

37. A vehicle has been brought in with a complaint of engine performance issues only at certain ambient temperatures. The MOST likely cause is:

- A. Temperature-related component sensitivity, sensor accuracy issues, or fuel mixture issues
- B. Apply compressed air to the system
- C. Replace the engine as a precaution
- D. Replace the brake fluid as the only step

38. The proper procedure for diagnosing temperature-related engine performance is to:

- A. Apply compressed air to the system
- B. Verify the symptom under matching temperature conditions, monitor scan data, identify the cause
- C. Replace the engine as a precaution
- D. Replace the brake fluid as the only step

39. A vehicle has been brought in with a complaint of engine performance issues that occur intermittently. The MOST likely cause is:

- A. Apply compressed air to the system
- B. Replace the affected components as a precaution
- C. Marginal connection, intermittent component fault, or condition-specific issue
- D. Replace the brake fluid as the only step

40. The proper procedure for diagnosing intermittent engine performance issues is to:

- A. Verify the symptom under matching conditions, monitor scan data, perform wiggle testing
- B. Apply compressed air to the system
- C. Replace the affected components as a precaution

D. Replace the brake fluid as the only step

41. A vehicle equipped with active fuel management has been brought in for diagnosis. The proper purpose of active fuel management is to:

A. Apply compressed air to the system

B. Replace the system as a precaution

C. Replace the engine as a precaution

D. Disable selected cylinders during light loads to improve fuel economy

42. The proper procedure for diagnosing active fuel management faults is to:

A. Apply compressed air to the system

B. Verify the concern, retrieve DTCs, monitor scan data for cylinder operation, identify the cause

C. Replace the engine as a precaution

D. Replace the brake fluid as the only step

43. A vehicle equipped with electric water pump has been brought in for diagnosis. The proper purpose of an electric water pump is to:

A. Apply compressed air to the pump

B. Replace the pump as a precaution

C. Provide controllable coolant flow independent of engine speed for better thermal management

D. Filter contaminants from the system

44. The proper procedure for diagnosing electric water pump faults is to:

A. Verify the concern, retrieve DTCs, monitor pump operation through scan tool, identify the cause

- B. Apply compressed air to the pump
- C. Replace the pump as a precaution
- D. Replace the brake fluid as the only step

45. A vehicle equipped with stop-start technology has been brought in with a complaint that the stop-start system does not engage. The MOST likely cause is:

- A. Apply compressed air to the system
- B. Replace the stop-start system as a precaution
- C. Replace the engine as a precaution
- D. Multiple conditions preventing stop-start (battery state, climate demands, transmission, sensor faults)

46. The proper procedure for diagnosing stop-start system faults is to:

- A. Apply compressed air to the system
- B. Verify the concern, retrieve DTCs, monitor scan data, identify which condition prevents engagement
- C. Replace the stop-start system as a precaution
- D. Replace the brake fluid as the only step

47. A vehicle has been brought in with the following findings: complaint of multiple engine performance issues, multiple stored DTCs, marginal sensor connections, corroded ground points, and DTCs across multiple modules. The MOST appropriate action is:

- A. Apply compressed air to the system
- B. Replace the engine as a precaution
- C. Repair the marginal connections, repair the corroded grounds, clear DTCs, perform required service
- D. Replace the brake fluid as the only step

48. The proper procedure for verifying electrical service to engine performance systems is to:

- A. Apply compressed air to the system
- B. Replace the affected systems as a precaution
- C. Replace the brake fluid as the only step
- D. Verify all repairs, perform voltage drop testing, verify all engine functions, clear DTCs

49. A vehicle has been brought in with a complaint of engine performance issues that affect both engine and emissions monitor completion. The MOST likely cause is:

- A. A common cause affecting both areas (sensor fault, ground issue, or shared component)
- B. Apply compressed air to the system
- C. Replace the affected systems as a precaution
- D. Replace the brake fluid as the only step

50. The proper procedure for verifying complete modern engine performance service is to:

- A. Apply compressed air to the system
- B. Verify all repairs, perform required relearns, road test, allow monitors to complete, verify operation
- C. Replace the engine system as a precaution
- D. Replace the brake fluid as the only step

# PRACTICE EXAM 6: A8 SIMULATION

## — ANSWER KEY, EXPLANATIONS, AND TASK REMEDIATION

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1. B — CAN bus communication fault, ECM fault, or open circuit in module power or ground. Multiple DTCs with ECM not communicating is the diagnostic signature of major communication or module issue. *ASE Task Reference: A8 Domain B — Computerized Engine Controls. Review subsection 8.2.*
2. D — Use a scan tool to verify CAN bus communication, check for network DTCs, inspect bus wiring. ECM CAN bus diagnosis requires comprehensive systematic approach. *ASE Task Reference: A8 Domain B — Computerized Engine Controls. Review subsection 8.2.*
3. A — Coordinate engine operation with electric motor for optimal efficiency and emissions. Hybrid integration optimizes powertrain operation. The engine and electric motor work together for efficiency. *ASE Task Reference: A8 Domain A — General Engine Diagnosis. Review subsection 8.1.*
4. C — Verify the concern, retrieve DTCs, follow manufacturer-specified procedure with proper PPE. Hybrid engine diagnosis requires PPE and manufacturer specifications. *ASE Task Reference: A8 Domain A — General Engine Diagnosis. Review subsection 8.1.*
5. B — A failed hybrid starter system, fault in the high-voltage system, or fault in the hybrid integration. Stop-start transition issues have multiple potential causes. *ASE Task Reference: A8 Domain A — General Engine Diagnosis. Review subsection 8.1.*
6. D — Verify the concern, retrieve DTCs, follow manufacturer procedure with PPE, identify the cause. Hybrid restart diagnosis requires PPE and manufacturer specifications. *ASE Task Reference: A8 Domain A — General Engine Diagnosis. Review subsection 8.1.*
7. A — A failed range extender engine, fault in the EV control system, or fault in the engine integration. Range extender issues have multiple potential causes. *ASE Task Reference: A8 Domain A — General Engine Diagnosis. Review subsection 8.1.*
8. D — Verify the concern, follow manufacturer-specified procedure with proper PPE, identify the cause. Range extender diagnosis requires PPE and manufacturer specifications. *ASE Task Reference: A8 Domain A — General Engine Diagnosis. Review subsection 8.1.*

9. C — Capture particulate matter from gasoline engine exhaust to reduce emissions. The GPF is a particulate filter for gasoline engines. It captures fine particulates from modern GDI engines. *ASE Task Reference: A8 Domain E — Emissions Control Systems. Review subsection 8.5.*
10. B — Verify the concern, retrieve DTCs, monitor scan data for GPF, identify the cause. GPF diagnosis requires scan tool integration. The system has specific monitoring parameters. *ASE Task Reference: A8 Domain E — Emissions Control Systems. Review subsection 8.5.*
11. C — Recirculate exhaust from after the catalytic converter for improved emissions and efficiency. Low-pressure EGR provides cooled and treated exhaust. The position after the catalyst provides cleaner EGR gas. *ASE Task Reference: A8 Domain E — Emissions Control Systems. Review subsection 8.5.*
12. A — Verify the concern, retrieve DTCs, monitor EGR scan data, identify the cause. Low-pressure EGR diagnosis requires scan tool integration. The system has specific monitoring parameters. *ASE Task Reference: A8 Domain E — Emissions Control Systems. Review subsection 8.5.*
13. D — Altitude-related operating condition affecting fuel mixture, ignition timing, or component performance. Altitude affects engine operation through air density changes. Multiple engine systems must compensate. *ASE Task Reference: A8 Domain A — General Engine Diagnosis. Review subsection 8.1.*
14. B — Verify the symptom under matching altitude conditions, monitor scan data, identify the cause. Altitude-related diagnosis requires matching conditions. *ASE Task Reference: A8 Domain A — General Engine Diagnosis. Review subsection 8.1.*
15. D — Heat-related component sensitivity, sensor drift, or thermal expansion-related issue. Extended operation produces heat that affects components. *ASE Task Reference: A8 Domain A — General Engine Diagnosis. Review subsection 8.1.*
16. A — Verify the symptom under matching extended operation conditions, monitor scan data. Extended-operation diagnosis requires matching conditions. *ASE Task Reference: A8 Domain A — General Engine Diagnosis. Review subsection 8.1.*
17. C — Service-related issue (improper installation, wrong parts, calibration loss, or procedure error). Post-service issues often relate to the recent service. *ASE Task Reference: A8 Domain A — General Engine Diagnosis. Review subsection 8.1.*
18. B — Verify the concern, identify potential service-related causes, address the cause. Post-service diagnosis requires consideration of recent service. *ASE Task Reference: A8 Domain A — General Engine Diagnosis. Review subsection 8.1.*
19. A — A failed telematics module, fault in the engine integration, or fault in connectivity. Engine and telematics integration has multiple potential failure points. *ASE Task Reference: A8 Domain B — Computerized Engine Controls. Review subsection 8.2.*

20. D — Verify the concern, retrieve DTCs, verify telematics operation, verify engine operation. Telematics-engine diagnosis requires multi-system approach. *ASE Task Reference: A8 Domain B — Computerized Engine Controls. Review subsection 8.2.*
21. C — The update may have introduced an issue requiring rollback or further update. Post-OTA engine issues may require manufacturer guidance. *ASE Task Reference: A8 Domain B — Computerized Engine Controls. Review subsection 8.2.*
22. B — Verify the update completed, contact the manufacturer if issues persist, follow recommended procedure. Post-OTA issues require manufacturer guidance. *ASE Task Reference: A8 Domain B — Computerized Engine Controls. Review subsection 8.2.*
23. D — A vibration-related issue, marginal connection, or component movement during operation. Motion-related issues indicate vibration sensitivity. *ASE Task Reference: A8 Domain A — General Engine Diagnosis. Review subsection 8.1.*
24. A — Verify the symptom during motion, perform wiggle testing during operation, identify the cause. Motion-related diagnosis requires testing during motion. *ASE Task Reference: A8 Domain A — General Engine Diagnosis. Review subsection 8.1.*
25. C — Engine performance affecting transmission control inputs, or transmission fault affecting engine. Engine and transmission interaction creates potential issues. Each system depends on the other. *ASE Task Reference: A8 Domain B — Computerized Engine Controls. Review subsection 8.2.*
26. B — Verify the concern, retrieve DTCs from both modules, identify common causes. Engine-transmission diagnosis requires multi-module approach. *ASE Task Reference: A8 Domain B — Computerized Engine Controls. Review subsection 8.2.*
27. C — Engine performance affecting torque control, or shared sensor inputs causing both faults. Engine and stability interaction creates potential issues. Shared sensors affect both systems. *ASE Task Reference: A8 Domain B — Computerized Engine Controls. Review subsection 8.2.*
28. A — Verify the concern, retrieve DTCs from both modules, identify common causes. Engine-stability diagnosis requires multi-module approach. *ASE Task Reference: A8 Domain B — Computerized Engine Controls. Review subsection 8.2.*
29. D — Calibration loss requiring relearn (idle, fuel trim, throttle, or transmission adaptive learn). Battery replacement causes calibration loss in many modules. *ASE Task Reference: A8 Domain B — Computerized Engine Controls. Review subsection 8.2.*
30. D — Identify required relearn procedures, perform each manufacturer-specified procedure, verify operation. Engine relearn requires identification of all affected systems. *ASE Task Reference: A8 Domain B — Computerized Engine Controls. Review subsection 8.2.*

31. B — Multiple potential causes (sensor failures, mechanical issues, fuel system, ignition system). Fuel economy issues have multiple potential causes. *ASE Task Reference: A8 Domain A — General Engine Diagnosis. Review subsection 8.1.*
32. C — Verify the concern, retrieve DTCs, monitor fuel trims and operating data, identify the cause. Fuel economy diagnosis requires comprehensive approach. *ASE Task Reference: A8 Domain A — General Engine Diagnosis. Review subsection 8.1.*
33. A — Multiple potential causes affecting OBD-II monitor completion or emission control efficiency. Emissions test issues have multiple potential causes. *ASE Task Reference: A8 Domain E — Emissions Control Systems. Review subsection 8.5.*
34. C — Verify the concern, retrieve DTCs, monitor monitor readiness, identify the cause. Emissions diagnosis requires comprehensive approach. *ASE Task Reference: A8 Domain E — Emissions Control Systems. Review subsection 8.5.*
35. B — Fuel quality issue (contamination, wrong octane, water in fuel, or contaminated station fuel). Post-fill issues often relate to fuel quality. *ASE Task Reference: A8 Domain D — Fuel, Air Induction, and Exhaust. Review subsection 8.4.*
36. D — Verify the concern, sample the fuel, identify contamination if present, address the cause. Post-fuel-fill diagnosis requires fuel sampling. *ASE Task Reference: A8 Domain D — Fuel, Air Induction, and Exhaust. Review subsection 8.4.*
37. A — Temperature-related component sensitivity, sensor accuracy issues, or fuel mixture issues. Temperature-related issues have multiple potential causes. *ASE Task Reference: A8 Domain A — General Engine Diagnosis. Review subsection 8.1.*
38. B — Verify the symptom under matching temperature conditions, monitor scan data, identify the cause. Temperature-related diagnosis requires matching conditions. *ASE Task Reference: A8 Domain A — General Engine Diagnosis. Review subsection 8.1.*
39. C — Marginal connection, intermittent component fault, or condition-specific issue. Intermittent issues have multiple potential causes. *ASE Task Reference: A8 Domain A — General Engine Diagnosis. Review subsection 8.1.*
40. A — Verify the symptom under matching conditions, monitor scan data, perform wiggle testing. Intermittent diagnosis requires symptom-matching and physical testing. *ASE Task Reference: A8 Domain A — General Engine Diagnosis. Review subsection 8.1.*
41. D — Disable selected cylinders during light loads to improve fuel economy. Active fuel management reduces fuel consumption under light loads. *ASE Task Reference: A8 Domain A — General Engine Diagnosis. Review subsection 8.1.*

42. B — Verify the concern, retrieve DTCs, monitor scan data for cylinder operation, identify the cause. Active fuel management diagnosis requires scan tool integration. *ASE Task Reference: A8 Domain A — General Engine Diagnosis. Review subsection 8.1.*
43. C — Provide controllable coolant flow independent of engine speed for better thermal management. Electric water pumps enable variable coolant flow. The pump can operate independent of engine RPM. *ASE Task Reference: A8 Domain D — Fuel, Air Induction, and Exhaust. Review subsection 8.4.*
44. A — Verify the concern, retrieve DTCs, monitor pump operation through scan tool, identify the cause. Electric water pump diagnosis requires scan tool integration. *ASE Task Reference: A8 Domain D — Fuel, Air Induction, and Exhaust. Review subsection 8.4.*
45. D — Multiple conditions preventing stop-start (battery state, climate demands, transmission, sensor faults). Stop-start non-engagement has multiple potential causes. *ASE Task Reference: A8 Domain A — General Engine Diagnosis. Review subsection 8.1.*
46. B — Verify the concern, retrieve DTCs, monitor scan data, identify which condition prevents engagement. Stop-start diagnosis requires comprehensive approach. *ASE Task Reference: A8 Domain A — General Engine Diagnosis. Review subsection 8.1.*
47. C — Repair the marginal connections, repair the corroded grounds, clear DTCs, perform required service. Multiple electrical findings affecting engine performance each contribute to symptoms. *ASE Task Reference: A8 Domain B — Computerized Engine Controls. Review subsection 8.2.*
48. D — Verify all repairs, perform voltage drop testing, verify all engine functions, clear DTCs. Electrical service verification requires comprehensive approach. *ASE Task Reference: A8 Domain B — Computerized Engine Controls. Review subsection 8.2.*
49. A — A common cause affecting both areas (sensor fault, ground issue, or shared component). Combined engine and emissions monitor issues often share root causes. *ASE Task Reference: A8 Domain B — Computerized Engine Controls. Review subsection 8.2.*
50. B — Verify all repairs, perform required relearns, road test, allow monitors to complete, verify operation. Modern engine performance service verification requires comprehensive approach. *ASE Task Reference: A8 Domain B — Computerized Engine Controls. Review subsection 8.2.*