PRACTICE EXAM 4: L1 SIMULATION — ADVANCED ENGINE PERFORMANCE SPECIALIST

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1. A vehicle has been brought in with the following multi-domain findings: complaint of misfire and rough idle, P0300 set, vacuum leak detected, marginal fuel pressure, worn spark plugs, and DTCs across multiple systems. The MOST appropriate action is:

A. Replace only the spark plugs as the most direct repair

B. Address all findings: repair vacuum leak, address fuel pressure, replace plugs, clear DTCs

C. Apply compressed air to the system

D. Replace the brake fluid as the only step

2. Technician A says addressing only the spark plugs resolves multi-domain issues. Technician B says all related findings must be addressed for complete repair. Who is correct?

A. Technician A only

B. Both Technician A and Technician B

C. Neither Technician A nor Technician B

D. Technician B only

3. The proper procedure for diagnosing a complex multi-domain L1 case is to:

A. Apply compressed air to the system

B. Replace the affected components as a precaution

C. Verify each customer concern, identify findings systematically across all domains, address all causes

D. Replace the brake fluid as the only step

4. A vehicle has been brought in with: complaint of poor performance, P0171, P0300, P0420 all set simultaneously, vehicle data shows V6, 100,000 miles, multiple findings across domains. The MOST likely root cause is:

A. A common cause producing lean condition that produces misfire that damages catalyst

B. Apply compressed air to the system

C. Replace the catalyst as a precaution

D. Replace the brake fluid as the only step

5. The proper procedure for verifying multi-domain repair is to:

A. Apply compressed air to the system

B. Replace the affected components as a precaution

C. Replace the powertrain as a precaution

D. Verify all repairs, allow monitors to complete, road test, verify proper operation

6. A vehicle has been brought in with: complaint of failed I/M test for high HC, P0300 set, faulty spark plugs, weak coil, contaminated air filter, and lean fuel trims. The MOST appropriate action is:

A. Apply compressed air to the system

B. Address all findings: replace plugs, replace coil, replace filter, address lean condition, allow monitor completion

C. Replace only the catalyst as the most direct repair

D. Replace the brake fluid as the only step

7. Technician A says I/M test failures can have multiple coexisting causes. Technician B says addressing all related findings is required for complete repair. Who is correct?

A. Technician A only

B. Technician B only

C. Neither Technician A nor Technician B

D. Both Technician A and Technician B

8. The proper procedure for verifying I/M test repair is to:

A. Verify all repairs, road test through proper drive cycle, allow all monitors to complete, perform I/M test

B. Apply compressed air to the system

C. Replace the affected components as a precaution

D. Replace the brake fluid as the only step

9. A vehicle has been brought in with: complaint of multiple drivability symptoms, multiple stored DTCs, marginal sensor connections, contaminated MAF, worn spark plugs, and faulty oxygen sensor. The MOST appropriate action is:

A. Apply compressed air to the system

B. Replace only the MAF sensor as the most direct repair

C. Address all findings: replace MAF, replace plugs, replace O2 sensor, repair connections, clear DTCs

D. Replace the brake fluid as the only step

10. The proper procedure for verifying complete drivability service is to:

A. Apply compressed air to the system

B. Replace the affected components as a precaution

C. Replace the powertrain as a precaution

D. Verify all repairs, road test under varied conditions, allow monitors to complete, verify operation

11. A vehicle has been brought in with: complaint of poor fuel economy, fuel system DTCs, faulty fuel pressure regulator, worn fuel filter, marginal fuel pump, and DTCs across multiple modules. The MOST appropriate action is:

A. Apply compressed air to the system

B. Address all findings: replace regulator, replace filter, address pump, clear DTCs, verify

C. Replace only the fuel filter as the most direct repair

D. Replace the brake fluid as the only step

12. The proper procedure for verifying complete fuel system service 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 all repairs, perform fuel pressure and volume tests, road test, verify operation

13. A vehicle has been brought in with: complaint of high emissions test failure, multiple emission DTCs, faulty oxygen sensors, faulty EGR valve, faulty EVAP system, and faulty catalytic converter. The MOST appropriate action is:

A. Address all findings: replace O2 sensors, repair EGR, repair EVAP, replace catalyst, clear DTCs

B. Apply compressed air to the system

C. Replace the emission system as a precaution

D. Replace the brake fluid as the only step

14. The proper procedure for verifying emissions control service is to:

A. Apply compressed air to the system

B. Replace the emission system as a precaution

C. Verify all repairs, road test, allow monitors to complete, perform I/M test, verify proper emissions

D. Replace the brake fluid as the only step

15. A vehicle has been brought in with: complaint of multiple engine performance issues, multiple DTCs across the engine ECM, network communication faults, and multiple sensor faults. The MOST appropriate action is:

A. Apply compressed air to the system

B. Verify network communication, identify common causes, perform required service, clear DTCs

C. Replace the engine ECM as a precaution

D. Replace the brake fluid as the only step

16. The proper procedure for verifying multi-module service is to:

A. Apply compressed air to the system

B. Replace the affected modules as a precaution

C. Replace the brake fluid as the only step

D. Verify network communication, verify all module operations, clear DTCs, road test, verify operation

17. A vehicle has been brought in with: complaint of intermittent engine issues, scan data showing intermittent symptoms during specific conditions, marginal connections, and DTCs related to engine operation. The MOST appropriate action is:

A. Verify the symptom under matching conditions, identify the cause, address marginal connections

B. Apply compressed air to the system

C. Replace the engine as a precaution

D. Replace the brake fluid as the only step

18. The proper procedure for diagnosing intermittent multi-domain issues is to:

A. Apply compressed air to the system

B. Replace the affected components as a precaution

C. Verify the symptom under matching conditions, monitor scan data, perform wiggle testing

D. Replace the brake fluid as the only step

19. A vehicle has been brought in with: complaint of multiple engine performance issues, multiple sensor inaccuracies, multiple actuator faults, and DTCs across multiple modules. The MOST appropriate action is:

A. Apply compressed air to the system

B. Verify each sensor, address each fault, clear DTCs, verify proper operation

C. Replace the engine ECM as the most direct repair

D. Replace the brake fluid as the only step

20. Technician A says engine performance issues can have multiple coexisting causes. Technician B says addressing all related findings is required for complete repair. Who is correct?

A. Both Technician A and Technician B

B. Technician A only

C. Technician B only

D. Neither Technician A nor Technician B

21. The proper procedure for verifying multi-domain engine performance service is to:

A. Apply compressed air to the system

B. Replace the engine ECM as a precaution

C. Replace the brake fluid as the only step

D. Verify all repairs, verify sensor accuracy, verify actuator operation, clear DTCs, road test

22. A vehicle equipped with hybrid technology has been brought in with: complaint of engine performance issues, hybrid system warnings, DTCs across multiple modules, and reduced engine performance. The MOST appropriate action is:

A. Apply compressed air to the system

B. Replace the hybrid system as a precaution

C. Verify the concern, follow manufacturer-specified procedure with PPE, perform required service

D. Replace the brake fluid as the only step

23. Technician A says hybrid engine service requires high-voltage isolation procedures. Technician B says all related findings must be addressed. Who is correct?

A. Technician A only

B. Both Technician A and Technician B

C. Technician B only

D. Neither Technician A nor Technician B

24. The proper procedure for verifying hybrid engine performance service is to:

A. Apply compressed air to the system

B. Replace the hybrid engine system as a precaution

C. Verify all repairs, restore the high-voltage system properly, verify proper operation per manufacturer

D. Replace the brake fluid as the only step

25. A vehicle has been brought in with: complaint of engine performance issues only at extreme temperatures, marginal sensor performance, multiple worn components, and DTCs related to engine operation. The MOST appropriate action is:

A. Address all findings: address marginal sensors, replace worn components, verify operation under conditions

B. Apply compressed air to the system

C. Replace the engine as a precaution

D. Replace the brake fluid as the only step

26. The proper procedure for verifying extreme-temperature engine service is to:

A. Apply compressed air to the system

B. Replace the engine as a precaution

C. Replace the brake fluid as the only step

D. Verify all repairs, verify proper operation under extreme conditions, road test, verify performance

27. A vehicle has been brought in with: complaint of engine knock, knock sensor DTCs, advanced timing condition, lean fuel mixture, and worn spark plugs. The MOST appropriate action is:

A. Apply compressed air to the system

B. Address all findings: address timing issue, address fuel mixture, replace plugs, verify resolution

C. Replace only the knock sensor as the most direct repair

D. Replace the brake fluid as the only step

28. The proper procedure for verifying knock service is to:

A. Verify all repairs, monitor knock sensor activity, road test, verify proper operation

B. Apply compressed air to the system

C. Replace the engine as a precaution

D. Replace the brake fluid as the only step

29. A vehicle has been brought in with: complaint of engine performance issues, multiple worn components, DTCs across the system, oil contamination, and air filter restriction. The MOST appropriate action is:

A. Apply compressed air to the system

B. Replace the engine as a precaution

C. Address all findings: address worn components, address oil, replace filter, clear DTCs, verify

D. Replace the brake fluid as the only step

30. The proper procedure for verifying multi-component engine service is to:

A. Apply compressed air to the system

B. Replace the engine as a precaution

C. Replace the brake fluid as the only step

D. Verify all repairs, perform proper service procedures, road test, clear DTCs, verify operation

31. A vehicle has been brought in with: complaint of engine performance issues following a battery replacement, multiple modules requiring relearn, DTCs in multiple modules, and engine not operating properly. The MOST appropriate action is:

A. Apply compressed air to the system

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

C. Replace the engine ECM as a precaution

D. Replace the brake fluid as the only step

32. The proper procedure for verifying post-battery-replacement engine service is to:

A. Verify all relearn procedures completed, verify all engine functions, clear DTCs, road test, verify operation

B. Apply compressed air to the system

C. Replace the engine ECM as a precaution

D. Replace the brake fluid as the only step

33. A vehicle has been brought in with: complaint of engine performance issues following a software update, multiple module faults, DTCs across multiple modules, and engine not operating properly. The MOST appropriate action is:

A. Apply compressed air to the system

B. Replace the affected modules as a precaution

C. Verify the update was completed, contact the manufacturer, perform recommended service, verify operation

D. Replace the brake fluid as the only step

34. The proper procedure for verifying post-update engine performance service is to:

A. Apply compressed air to the system

B. Replace the affected modules as a precaution

C. Replace the brake fluid as the only step

D. Verify all repairs, verify successful update or rollback, verify all engine functions, clear DTCs, road test

35. A vehicle has been brought in with: complaint of engine performance issues following a fuel fill-up, fuel quality issues identified, multiple worn components, and DTCs related to engine operation. The MOST appropriate action is:

A. Apply compressed air to the system

B. Address all findings: address contaminated fuel, replace worn components, clear DTCs, verify operation

C. Replace the fuel system as a precaution

D. Replace the brake fluid as the only step

36. The proper procedure for verifying fuel quality service is to:

A. Verify all repairs, verify proper fuel quality, verify proper engine operation, clear DTCs

B. Apply compressed air to the system

C. Replace the fuel system as a precaution

D. Replace the brake fluid as the only step

37. A vehicle has been brought in with: complaint of multiple engine performance issues that occur only at certain ambient temperatures, scan data showing temperature-related symptoms, multiple worn components, and DTCs across multiple modules. The MOST appropriate action is:

A. Apply compressed air to the system

B. Replace the affected systems as a precaution

C. Verify the symptom under matching temperature conditions, identify the cause, address all findings

D. Replace the brake fluid as the only step

38. The proper procedure for verifying temperature-related engine service is to:

A. Apply compressed air to the system

B. Verify all repairs, verify proper operation in matching conditions, clear DTCs, verify operation

C. Replace the affected systems as a precaution

D. Replace the brake fluid as the only step

39. A vehicle has been brought in with: complaint of multiple engine performance issues that occur only when the vehicle is in motion, scan data showing motion-related symptoms, marginal connections, and DTCs across multiple modules. The MOST appropriate action is:

A. Verify the symptom during motion, perform wiggle testing during operation, address marginal connections

B. Apply compressed air to the system

C. Replace the affected components as a precaution

D. Replace the brake fluid as the only step

40. The proper procedure for verifying motion-related engine service is to:

A. Apply compressed air to the system

B. Replace the affected components as a precaution

C. Replace the brake fluid as the only step

D. Verify all repairs, verify proper operation during motion, road test, verify resolution

41. A vehicle has been brought in with: complaint of multiple engine performance issues, multiple worn components across the engine system, multiple service items required across all six L1 domains. The MOST appropriate action is:

A. Apply compressed air to the system

B. Address all findings comprehensively: repair each component requiring service, perform proper service

C. Replace the engine system as a precaution

D. Replace the brake fluid as the only step

42. The proper procedure for verifying complete L1-domain engine performance service is to:

A. Apply compressed air to the system

B. Replace the engine system as a precaution

C. Verify all repairs, perform proper service procedures, clear DTCs, road test, verify all symptoms resolved

D. Replace the brake fluid as the only step

43. A vehicle has been brought in with: complaint of multiple engine performance issues that occur only after extended driving, scan data showing heat-related symptoms, multiple worn components, and DTCs related to engine operation. The MOST appropriate action is:

A. Apply compressed air to the system

B. Replace the affected systems as a precaution

C. Verify the symptom under matching heat conditions, identify the cause, address all findings, perform service

D. Replace the brake fluid as the only step

44. The proper procedure for verifying heat-related engine service is to:

A. Verify all repairs, verify proper operation under matching heat conditions, road test, verify performance

B. Apply compressed air to the system

C. Replace the affected systems as a precaution

D. Replace the brake fluid as the only step

45. A vehicle has been brought in with: complaint of engine performance issues that affect both engine and transmission operation, multiple DTCs in both modules, common cause findings, and reduced overall performance. The MOST appropriate action is:

A. Apply compressed air to the system

B. Replace the engine and transmission as a precaution

C. Replace the brake fluid as the only step

D. Identify the common cause, address findings systematically, perform required service, verify operation

46. The proper procedure for verifying engine and transmission integration service is to:

A. Apply compressed air to the system

B. Verify all repairs, verify both systems operate properly, clear DTCs, road test, verify resolution

C. Replace the engine and transmission as a precaution

D. Replace the brake fluid as the only step

47. A vehicle has been brought in with: complaint of engine performance issues that affect emissions test results, multiple emission DTCs, faulty emission components, and reduced emission control efficiency. The MOST appropriate action is:

A. Apply compressed air to the system

B. Replace the emission system as a precaution

C. Address all findings: replace emission components, address engine performance, perform required service

D. Replace the brake fluid as the only step

48. The proper procedure for verifying emissions test service is to:

A. Apply compressed air to the system

B. Replace the emission system as a precaution

C. Replace the brake fluid as the only step

D. Verify all repairs, road test through proper drive cycle, allow all monitors to complete, verify operation

49. A vehicle has been brought in for routine engine performance inspection. The technician finds multiple components past the manufacturer's typical service interval and showing signs of wear. The MOST appropriate action is:

A. Inform the customer of all findings, document the wear pattern, provide recommendations based on interval and use

B. Apply compressed air to the components

C. Replace all worn components as a precaution

D. Replace the brake fluid as the only step

50. The proper procedure for documenting L1 engine performance inspection findings is to:

A. Apply compressed air to the components

B. Inspect all relevant components, measure relevant specifications, record findings, identify required service, document service performed

C. Replace the components as a precaution

D. Replace the brake fluid as the only step

PRACTICE EXAM 4: L1 SIMULATION — ANSWER KEY, EXPLANATIONS, AND TASK REMEDIATION

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1. B — Address all findings: repair vacuum leak, address fuel pressure, replace plugs, clear DTCs. Multiple multi-domain findings each contribute to symptoms. Comprehensive repair addresses each cause. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

2. D — Technician B only. Multi-domain issues with multiple findings require comprehensive repair. Component wear progresses together; addressing only one leaves issues unresolved. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

3. C — Verify each customer concern, identify findings systematically across all domains, address all causes. Complex multi-domain L1 diagnosis requires systematic approach across all domains. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

4. A — A common cause producing lean condition that produces misfire that damages catalyst. P0171, P0300, and P0420 simultaneously suggests cascade. The lean produces misfire that damages catalyst. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

5. D — Verify all repairs, allow monitors to complete, road test, verify proper operation. Multi-domain repair verification requires comprehensive approach including monitor completion. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

6. B — Address all findings: replace plugs, replace coil, replace filter, address lean condition, allow monitor completion. I/M failure with multiple findings requires comprehensive approach. *ASE Task Reference: L1 Domain F — I/M Failure Diagnosis. Review subsection L.6.*

7. D — Both Technician A and Technician B. I/M test failures can have multiple coexisting causes (correct), and addressing all related findings is required for complete repair (correct). Both observations describe accurate principles. *ASE Task Reference: L1 Domain F — I/M Failure Diagnosis. Review subsection L.6.*

8. A — Verify all repairs, road test through proper drive cycle, allow all monitors to complete, perform I/M test. I/M test repair verification requires comprehensive approach including monitor

completion and retest. *ASE Task Reference: L1 Domain F — I/M Failure Diagnosis. Review subsection L.6.*

9. C — Address all findings: replace MAF, replace plugs, replace O2 sensor, repair connections, clear DTCs. Multi-domain drivability findings each contribute to symptoms. *ASE Task Reference: L1 Domain B — Computerized Powertrain Controls Diagnosis. Review subsection L.2.*

10. D — Verify all repairs, road test under varied conditions, allow monitors to complete, verify operation. Drivability service verification requires comprehensive approach including monitor completion. *ASE Task Reference: L1 Domain B — Computerized Powertrain Controls Diagnosis. Review subsection L.2.*

11. B — Address all findings: replace regulator, replace filter, address pump, clear DTCs, verify. Multi-component fuel system findings each contribute to symptoms. *ASE Task Reference: L1 Domain D — Fuel Systems and Air Induction Diagnosis. Review subsection L.4.*

12. D — Verify all repairs, perform fuel pressure and volume tests, road test, verify operation. Fuel system service verification requires comprehensive approach including pressure and volume testing. *ASE Task Reference: L1 Domain D — Fuel Systems and Air Induction Diagnosis. Review subsection L.4.*

13. A — Address all findings: replace O2 sensors, repair EGR, repair EVAP, replace catalyst, clear DTCs. Multi-component emission findings each contribute to test failure. *ASE Task Reference: L1 Domain E — Emissions Control Systems Diagnosis. Review subsection L.5.*

14. C — Verify all repairs, road test, allow monitors to complete, perform I/M test, verify proper emissions. Emissions service verification requires monitor completion and retest. *ASE Task Reference: L1 Domain E — Emissions Control Systems Diagnosis. Review subsection L.5.*

15. B — Verify network communication, identify common causes, perform required service, clear DTCs. Multi-module engine performance issues require systematic approach. *ASE Task Reference: L1 Domain B — Computerized Powertrain Controls Diagnosis. Review subsection L.2.*

16. D — Verify network communication, verify all module operations, clear DTCs, road test, verify operation. Multi-module service verification requires comprehensive approach. *ASE Task Reference: L1 Domain B — Computerized Powertrain Controls Diagnosis. Review subsection L.2.*

17. A — Verify the symptom under matching conditions, identify the cause, address marginal connections. Intermittent multi-domain diagnosis requires symptom-matching conditions. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

18. C — Verify the symptom under matching conditions, monitor scan data, perform wiggle testing. Intermittent multi-domain diagnosis requires comprehensive systematic approach. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

19. B — Verify each sensor, address each fault, clear DTCs, verify proper operation. Multi-module engine performance findings each contribute to symptoms. *ASE Task Reference: L1 Domain B — Computerized Powertrain Controls Diagnosis. Review subsection L.2.*

20. A — Both Technician A and Technician B. Engine performance issues can have multiple coexisting causes (correct), and addressing all related findings is required for complete repair (correct). Both observations describe accurate principles. *ASE Task Reference: L1 Domain B — Computerized Powertrain Controls Diagnosis. Review subsection L.2.*

21. D — Verify all repairs, verify sensor accuracy, verify actuator operation, clear DTCs, road test. Multi-domain engine performance service verification requires comprehensive approach. *ASE Task Reference: L1 Domain B — Computerized Powertrain Controls Diagnosis. Review subsection L.2.*

22. C — Verify the concern, follow manufacturer-specified procedure with PPE, perform required service. Hybrid engine service requires PPE, manufacturer specifications, and systematic approach. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

23. B — Both Technician A and Technician B. Hybrid engine service requires high-voltage isolation procedures (correct), and all related findings must be addressed (correct). Both observations describe accurate principles. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

24. C — Verify all repairs, restore the high-voltage system properly, verify proper operation per manufacturer. Hybrid engine service verification requires comprehensive approach. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

25. A — Address all findings: address marginal sensors, replace worn components, verify operation under conditions. Multi-domain extreme-temperature findings each contribute to symptoms. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

26. D — Verify all repairs, verify proper operation under extreme conditions, road test, verify performance. Extreme-temperature engine service verification requires testing under extreme conditions. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

27. B — Address all findings: address timing issue, address fuel mixture, replace plugs, verify resolution. Multi-domain knock-related findings each contribute to symptoms. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

28. A — Verify all repairs, monitor knock sensor activity, road test, verify proper operation. Knock service verification requires monitoring knock sensor activity. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

29. C — Address all findings: address worn components, address oil, replace filter, clear DTCs, verify. Multi-domain engine findings each contribute to symptoms. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

30. D — Verify all repairs, perform proper service procedures, road test, clear DTCs, verify operation. Multi-component engine service verification requires comprehensive approach. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

31. B — Identify required relearn procedures, perform each manufacturer-specified procedure, verify operation. Multi-domain engine findings after battery replacement require relearn procedures. *ASE Task Reference: L1 Domain B — Computerized Powertrain Controls Diagnosis. Review subsection L.2.*

32. A — Verify all relearn procedures completed, verify all engine functions, clear DTCs, road test, verify operation. Post-battery-replacement engine service verification requires comprehensive approach. *ASE Task Reference: L1 Domain B — Computerized Powertrain Controls Diagnosis. Review subsection L.2.*

33. C — Verify the update was completed, contact the manufacturer, perform recommended service, verify operation. Post-update engine issues require manufacturer guidance. *ASE Task Reference: L1 Domain B — Computerized Powertrain Controls Diagnosis. Review subsection L.2.*

34. D — Verify all repairs, verify successful update or rollback, verify all engine functions, clear DTCs, road test. Post-update engine service verification requires comprehensive approach. *ASE Task Reference: L1 Domain B — Computerized Powertrain Controls Diagnosis. Review subsection L.2.*

35. B — Address all findings: address contaminated fuel, replace worn components, clear DTCs, verify operation. Multi-domain fuel quality issues require comprehensive approach. *ASE Task Reference: L1 Domain D — Fuel Systems and Air Induction Diagnosis. Review subsection L.4.*

36. A — Verify all repairs, verify proper fuel quality, verify proper engine operation, clear DTCs. Fuel quality service verification requires comprehensive approach. *ASE Task Reference: L1 Domain D — Fuel Systems and Air Induction Diagnosis. Review subsection L.4.*

37. C — Verify the symptom under matching temperature conditions, identify the cause, address all findings. Temperature-related multi-domain diagnosis requires symptom-matching conditions. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

38. B — Verify all repairs, verify proper operation in matching conditions, clear DTCs, verify operation. Temperature-related engine service verification requires verification under matching conditions. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

39. A — Verify the symptom during motion, perform wiggle testing during operation, address marginal connections. Motion-related multi-domain diagnosis requires testing during motion. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

40. D — Verify all repairs, verify proper operation during motion, road test, verify resolution. Motion-related engine service verification requires testing during motion. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

41. B — Address all findings comprehensively: repair each component requiring service, perform proper service. Multi-domain L1 findings require comprehensive approach. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

42. C — Verify all repairs, perform proper service procedures, clear DTCs, road test, verify all symptoms resolved. Multi-domain L1 service verification requires comprehensive approach. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

43. C — Verify the symptom under matching heat conditions, identify the cause, address all findings, perform service. Heat-related multi-domain diagnosis requires matching conditions. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

44. A — Verify all repairs, verify proper operation under matching heat conditions, road test, verify performance. Heat-related engine service verification requires testing under heat conditions. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

45. D — Identify the common cause, address findings systematically, perform required service, verify operation. Engine and transmission integration findings often share common root causes. *ASE Task Reference: L1 Domain B — Computerized Powertrain Controls Diagnosis. Review subsection L.2.*

46. B — Verify all repairs, verify both systems operate properly, clear DTCs, road test, verify resolution. Engine and transmission integration service verification requires verification of both systems. *ASE Task Reference: L1 Domain B — Computerized Powertrain Controls Diagnosis. Review subsection L.2.*

47. C — Address all findings: replace emission components, address engine performance, perform required service. Emissions test failure with multiple findings requires comprehensive approach. *ASE Task Reference: L1 Domain F — I/M Failure Diagnosis. Review subsection L.6.*

48. D — Verify all repairs, road test through proper drive cycle, allow all monitors to complete, verify operation. Emissions test service verification requires comprehensive approach including monitor completion. *ASE Task Reference: L1 Domain F — I/M Failure Diagnosis. Review subsection L.6.*

49. A — Inform the customer of all findings, document the wear pattern, provide recommendations based on interval and use. L1 inspection recommendations support proper service planning. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

50. B — Inspect all relevant components, measure relevant specifications, record findings, identify required service, document service performed. L1 inspection documentation requires comprehensive recording. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*