PRACTICE EXAM 3: L1 SIMULATION — ADVANCED ENGINE PERFORMANCE SPECIALIST

---

1. A vehicle has been brought in with the following case study information: complaint of MIL on, P0171 set, vehicle data shows 2.4L engine with 85,000 miles, recent repair history shows fuel pump replacement 30 days ago. The MOST appropriate first diagnostic step is to:

A. Apply compressed air to the system

B. Verify the concern, retrieve current scan data, identify cause considering recent service history

C. Replace the PCM as a precaution

D. Replace the brake fluid as the only step

2. The proper procedure for L1 case study analysis is to:

A. Apply compressed air to the system

B. Replace the affected components as a precaution

C. Visually inspect for visible damage only

D. Read all available data, synthesize information, identify the most probable cause

3. A vehicle has been brought in with: complaint of misfire, P0301 set, vehicle data shows V8 with 95,000 miles, recent service shows spark plug replacement 5 days ago. The MOST likely cause is:

A. Apply compressed air to the system

B. Replace the engine as a precaution

C. Issue from recent spark plug service (improper torque, wrong plug, ignition issue)

D. Replace the brake fluid as the only step

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

A. Apply compressed air to the system

B. Replace the affected components as a precaution

C. Replace the PCM as a precaution

D. Verify the concern, identify potential service-related causes, address the cause

5. A vehicle has been brought in with: complaint of poor fuel economy, no DTCs, vehicle data shows 4-cylinder, 75,000 miles, customer reports recent unusual driving conditions. The MOST appropriate diagnostic action is:

A. Verify the concern, gather customer information about driving conditions, perform comprehensive 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

6. The proper procedure for evaluating customer-described symptoms is to:

A. Apply compressed air to the system

B. Replace the affected components as a precaution

C. Replace the PCM as a precaution

D. Listen to customer description, ask clarifying questions, verify under matching conditions

7. A vehicle has been brought in with: complaint of MIL on, P0420 set, vehicle data shows V6, 110,000 miles, oxygen sensor activity shows downstream following upstream. The MOST likely cause is:

A. Apply compressed air to the system

B. Aged catalytic converter (loss of storage capacity)

C. Replace the catalyst as a precaution

D. Replace the brake fluid as the only step

8. The proper procedure for confirming catalyst aging is to:

A. Apply compressed air to the catalyst

B. Replace the catalyst as a precaution

C. Compare upstream and downstream activity, evaluate efficiency, document findings

D. Visually inspect for visible damage only

9. A vehicle has been brought in with: complaint of failed I/M test for high HC, vehicle data shows 4-cylinder, 95,000 miles, recent repair shows oxygen sensor replacement. The MOST likely cause is:

A. Catalyst issue not detected by recent oxygen sensor service

B. Apply compressed air to the system

C. Replace the catalyst as a precaution

D. Replace the brake fluid as the only step

10. The proper procedure for verifying catalyst service is to:

A. Apply compressed air to the system

B. Replace the catalyst as a precaution

C. Replace the affected components as a precaution

D. Verify all repairs, allow monitor completion, perform I/M test, verify resolution

11. A vehicle has been brought in with: complaint of intermittent stall, no DTCs, vehicle data shows 2.0L turbo, 60,000 miles, customer reports stall occurs only at idle. The MOST likely cause is:

A. Apply compressed air to the system

B. Replace the engine as a precaution

C. Idle-specific issue (vacuum leak, IAC, fuel pressure at idle, sensor at idle)

D. Replace the brake fluid as the only step

12. The proper procedure for diagnosing idle-specific stall is to:

A. Apply compressed air to the system

B. Verify the concern at idle, monitor scan data, identify the cause

C. Replace the affected components as a precaution

D. Visually inspect for visible damage only

13. A vehicle has been brought in with: complaint of MIL on, P0300, P0301, P0303 set (random and specific cylinder misfires), vehicle data shows V6, 80,000 miles, all cylinders show normal compression. The MOST likely cause is:

A. Apply compressed air to the system

B. Replace the engine as a precaution

C. Replace the spark plugs as a precaution

D. Issues affecting cylinders 1 and 3 specifically (ignition, fuel, or sensor)

14. The proper procedure for diagnosing combined random and specific misfire is to:

A. Verify the concern, isolate affected cylinders, identify common and cylinder-specific causes

B. Apply compressed air to the system

C. Replace the engine as a precaution

D. Replace the brake fluid as the only step

15. A vehicle has been brought in with: complaint of poor performance, P0442 (small EVAP leak), vehicle data shows 6-cylinder, 70,000 miles, recent service includes fuel cap replacement 2 days ago. The MOST likely cause is:

A. Apply compressed air to the system

B. Replace the EVAP system as a precaution

C. Recent fuel cap replacement may not have addressed all leak sources

D. Replace the brake fluid as the only step

16. The proper procedure for diagnosing EVAP issues after recent service is to:

A. Apply compressed air to the system

B. Verify all repairs, perform smoke test, identify any remaining leaks

C. Replace the EVAP system as a precaution

D. Visually inspect for visible damage only

17. A vehicle has been brought in with: complaint of MIL on, P0171 set, vehicle data shows V6, 90,000 miles, fuel trims show LTFT +18% bank 1 and +5% bank 2. The MOST likely cause is:

A. Bank 1 specific lean condition (vacuum leak, injector, fuel distribution to bank 1)

B. Apply compressed air to the system

C. Replace the PCM as a precaution

D. Replace the brake fluid as the only step

18. The proper procedure for diagnosing bank-specific lean condition is to:

A. Apply compressed air to the system

B. Replace the affected components as a precaution

C. Replace the PCM as a precaution

D. Verify the concern, isolate to the affected bank, identify the cause

19. A vehicle has been brought in with: complaint of hesitation, no DTCs, vehicle data shows 4-cylinder, 65,000 miles, customer reports hesitation only during cold weather. The MOST likely cause is:

A. Apply compressed air to the system

B. Replace the affected components as a precaution

C. Cold-weather specific issue (sensor accuracy at cold, fuel mixture at cold, fuel quality)

D. Replace the brake fluid as the only step

20. The proper procedure for diagnosing temperature-specific issues is to:

A. Apply compressed air to the system

B. Verify the concern under matching temperature conditions, monitor scan data, identify the cause

C. Replace the affected components as a precaution

D. Visually inspect for visible damage only

21. A vehicle has been brought in with: complaint of MIL on, P0102 (MAF circuit low input), vehicle data shows V6, 100,000 miles, MAF reading shows 0.5 g/s at idle (default value). The MOST likely cause is:

A. Apply compressed air to the system

B. Replace the MAF as a precaution

C. Replace the PCM as a precaution

D. MAF circuit fault (sensor failed, wiring issue, connector issue)

22. The proper procedure for diagnosing MAF circuit faults is to:

A. Verify the sensor circuit, identify the fault, address the cause

B. Apply compressed air to the system

C. Replace the MAF as a precaution

D. Replace the brake fluid as the only step

23. A vehicle has been brought in with: complaint of MIL on, P0335 (CKP circuit) set intermittently, vehicle data shows 4-cylinder, 80,000 miles, customer reports stall at random intervals. The MOST likely cause is:

A. Apply compressed air to the system

B. Marginal CKP sensor or wiring causing intermittent signal loss

C. Replace the PCM as a precaution

D. Replace the brake fluid as the only step

24. The proper procedure for diagnosing intermittent CKP issues is to:

A. Apply compressed air to the sensor

B. Replace the CKP as a precaution

C. Replace the PCM as a precaution

D. Verify the concern, perform wiggle testing, monitor signal under conditions

25. A vehicle has been brought in with: complaint of MIL on, P0401 (EGR insufficient flow), vehicle data shows V8, 130,000 miles, EGR valve commanded but no apparent flow. The MOST likely cause is:

A. Apply compressed air to the EGR system

B. Replace the EGR valve as a precaution

C. Restricted EGR passages from carbon buildup, faulty EGR valve, or vacuum supply issue

D. Replace the brake fluid as the only step

26. The proper procedure for diagnosing EGR insufficient flow is to:

A. Verify the concern, inspect EGR passages and valve, identify the cause

B. Apply compressed air to the system

C. Replace the EGR system as a precaution

D. Visually inspect for visible damage only

27. A vehicle has been brought in with: complaint of failed I/M test for high CO, vehicle data shows 6-cylinder, 110,000 miles, fuel trims show LTFT +20% (lean), normal upstream sensor activity. The MOST likely cause is:

A. Apply compressed air to the system

B. Replace the affected components as a precaution

C. The trim correction is hiding a deeper rich condition (fuel system, injector, oil consumption)

D. Replace the brake fluid as the only step

28. The proper procedure for diagnosing CO failure with lean trims is to:

A. Apply compressed air to the system

B. Verify the concern, evaluate the rich source the trim is correcting, address the cause

C. Replace the affected components as a precaution

D. Visually inspect for visible damage only

29. A vehicle has been brought in with: complaint of MIL on, P0455 (gross EVAP leak), vehicle data shows V8, 70,000 miles, smoke test shows leak at fuel filler neck. The MOST likely cause is:

A. Apply compressed air to the system

B. Replace the EVAP system as a precaution

C. Replace the PCM as a precaution

D. Damaged or worn fuel filler neck or seal

30. The proper procedure for verifying fuel filler neck repair is to:

A. Verify all repairs, perform smoke test, allow monitor completion, verify proper operation

B. Apply compressed air to the system

C. Replace the EVAP system as a precaution

D. Replace the brake fluid as the only step

31. A vehicle has been brought in with: complaint of poor performance only at high altitude, no DTCs, vehicle data shows 4-cylinder, 50,000 miles, customer reports performance degradation at altitude. The MOST likely cause is:

A. Apply compressed air to the system

B. Replace the affected components as a precaution

C. Replace the PCM as a precaution

D. Altitude-related condition affecting fuel mixture, ignition, or component performance

32. The proper procedure for diagnosing altitude-related performance is to:

A. Apply compressed air to the system

B. Verify the symptom under matching altitude, monitor scan data, identify the cause

C. Replace the affected components as a precaution

D. Visually inspect for visible damage only

33. A vehicle has been brought in with: complaint of MIL on, P0420 set, recent service shows spark plug replacement and ignition coil replacement, vehicle data shows V6, 100,000 miles. The MOST likely cause is:

A. Apply compressed air to the system

B. Replace the catalyst as a precaution

C. Catalyst damage from prior misfire (before recent ignition service) requiring catalyst attention

D. Replace the brake fluid as the only step

34. The proper procedure for evaluating catalyst after misfire repair is to:

A. Verify all repairs, monitor catalyst efficiency, evaluate catalyst condition, address as needed

B. Apply compressed air to the system

C. Replace the catalyst as a precaution

D. Visually inspect for visible damage only

35. A vehicle has been brought in with: complaint of MIL on, P0440 (EVAP malfunction), vehicle data shows 4-cylinder, 60,000 miles, EVAP system tests pass during current testing. The MOST likely cause is:

A. Apply compressed air to the system

B. Replace the EVAP system as a precaution

C. Intermittent EVAP fault that occurred under specific conditions not present during testing

D. Replace the brake fluid as the only step

36. The proper procedure for diagnosing intermittent EVAP DTCs is to:

A. Apply compressed air to the system

B. Verify the concern, test under varied conditions, identify the cause

C. Replace the EVAP system as a precaution

D. Visually inspect for visible damage only

37. A vehicle has been brought in with: complaint of poor performance, P0335 and P0340 set (CKP and CMP circuit faults), vehicle data shows V6, 90,000 miles, customer reports recent battery replacement. The MOST likely cause is:

A. CKP/CMP relearn required after battery disconnect, or sensor circuit issue

B. Apply compressed air to the system

C. Replace the sensors as a precaution

D. Replace the PCM as a precaution

38. The proper procedure for performing CKP/CMP relearn is to:

A. Apply compressed air to the system

B. Replace the sensors as a precaution

C. Use scan tool to perform manufacturer-specified relearn procedure, verify proper operation

D. Replace the brake fluid as the only step

39. A vehicle has been brought in with: complaint of MIL on, P0300 and multiple cylinder misfires, vehicle data shows V8, 105,000 miles, recent service shows fuel system cleaning. The MOST likely cause is:

A. Apply compressed air to the system

B. Issue from recent fuel system service (clogged filter, contamination, injector issue)

C. Replace the spark plugs as a precaution

D. Replace the brake fluid as the only step

40. The proper procedure for diagnosing post-fuel-service issues is to:

A. Apply compressed air to the system

B. Replace the affected components as a precaution

C. Replace the PCM as a precaution

D. Verify the concern, evaluate recent service for service-related causes, address the cause

41. A vehicle has been brought in with: complaint of MIL on, multiple DTCs across powertrain, vehicle data shows V6, 130,000 miles, customer reports symptoms appeared simultaneously with no recent service. The MOST likely cause is:

A. A common cause affecting multiple modules (network, power, ground, or shared sensor)

B. Apply compressed air to the system

C. Replace the affected components as a precaution

D. Replace the brake fluid as the only step

42. The proper procedure for diagnosing simultaneous multi-module DTCs is to:

A. Apply compressed air to the system

B. Verify the concern, identify common causes, address findings systematically

C. Replace the affected modules as a precaution

D. Visually inspect for visible damage only

43. A vehicle has been brought in with: complaint of poor performance, no DTCs, vehicle data shows 4-cylinder turbo, 45,000 miles, customer reports performance degradation only at high boost. The MOST likely cause is:

A. Apply compressed air to the system

B. Replace the turbo as a precaution

C. Boost-specific issue (boost leak, wastegate, intercooler restriction, or turbo issue)

D. Replace the brake fluid as the only step

44. The proper procedure for diagnosing boost-specific performance is to:

A. Apply compressed air to the system

B. Verify the symptom under high boost, monitor boost data, identify the cause

C. Replace the affected components as a precaution

D. Visually inspect for visible damage only

45. A vehicle has been brought in with: complaint of failed catalyst monitor, vehicle data shows 4-cylinder, 85,000 miles, scan data shows monitor not completing despite extended driving. The MOST likely cause is:

A. Monitor enabling criteria not being met (specific RPM, load, ECT, or other condition)

B. Apply compressed air to the system

C. Replace the catalyst as a precaution

D. Replace the PCM as a precaution

46. The proper procedure for diagnosing failed monitor completion is to:

A. Apply compressed air to the system

B. Replace the affected components as a precaution

C. Replace the PCM as a precaution

D. Verify enabling criteria, identify the blocking factor, address the cause

47. A vehicle has been brought in with: complaint of MIL on, P0011 and P0021 set (cam position correlation), vehicle data shows V6, 95,000 miles, recent service shows oil change with synthetic blend. The MOST likely cause is:

A. Apply compressed air to the system

B. Replace the cam phasers as a precaution

C. Oil-related issue affecting cam phaser operation (wrong oil, contaminated oil, or oil pressure)

D. Replace the brake fluid as the only step

48. The proper procedure for diagnosing cam phaser correlation issues is to:

A. Apply compressed air to the system

B. Verify the concern, evaluate oil condition, monitor cam phaser operation, identify the cause

C. Replace the cam phasers as a precaution

D. Visually inspect for visible damage only

49. A vehicle has been brought in with: complaint of MIL on, P0507 (idle higher than expected), vehicle data shows V6, 70,000 miles, recent service shows throttle body cleaning. The MOST likely cause is:

A. Apply compressed air to the system

B. Replace the throttle body as a precaution

C. Replace the PCM as a precaution

D. Idle relearn required after throttle body cleaning, or related throttle issue

50. The proper procedure for performing throttle body relearn is to:

A. Use scan tool to perform manufacturer-specified relearn procedure, verify proper idle

B. Apply compressed air to the system

C. Replace the throttle body as a precaution

D. Replace the brake fluid as the only step

PRACTICE EXAM 3: L1 SIMULATION — ANSWER KEY, EXPLANATIONS, AND TASK REMEDIATION

---

1. B — Verify the concern, retrieve current scan data, identify cause considering recent service history. Recent service history is critical L1 case study information. The fuel pump replacement may be related to current symptoms. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

2. D — Read all available data, synthesize information, identify the most probable cause. L1 case study analysis requires comprehensive data interpretation. Each piece of information contributes to diagnosis. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

3. C — Issue from recent spark plug service (improper torque, wrong plug, ignition issue). P0301 misfire 5 days after spark plug replacement strongly indicates service-related cause. *ASE Task Reference: L1 Domain C — Ignition System Diagnosis. Review subsection L.3.*

4. D — Verify the concern, identify potential service-related causes, address the cause. Post-service diagnosis requires consideration of recent service. Each service has specific potential issues. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

5. A — Verify the concern, gather customer information about driving conditions, perform comprehensive testing. Customer-described symptoms require gathering detailed information. Each detail contributes to diagnosis. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

6. D — Listen to customer description, ask clarifying questions, verify under matching conditions. Customer symptom evaluation requires careful listening and verification. The customer's description is the starting point. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

7. B — Aged catalytic converter (loss of storage capacity). P0420 with downstream following upstream and 110,000 miles indicates catalyst aging. The mileage and pattern align. *ASE Task Reference: L1 Domain E — Emissions Control Systems Diagnosis. Review subsection L.5.*

8. C — Compare upstream and downstream activity, evaluate efficiency, document findings. Catalyst aging confirmation requires sensor activity comparison. The pattern reveals catalyst condition.

ASE Task Reference: L1 Domain E — Emissions Control Systems Diagnosis. Review subsection L.5.

9. A — Catalyst issue not detected by recent oxygen sensor service. High HC with recent oxygen sensor replacement points to catalyst as the unaddressed cause. *ASE Task Reference: L1 Domain E — Emissions Control Systems Diagnosis. Review subsection L.5.*

10. D — Verify all repairs, allow monitor completion, perform I/M test, verify resolution. Catalyst service verification requires comprehensive approach including monitor completion. *ASE Task Reference: L1 Domain F — I/M Failure Diagnosis. Review subsection L.6.*

11. C — Idle-specific issue (vacuum leak, IAC, fuel pressure at idle, sensor at idle). Idle-only stall isolates to idle-specific systems. Each potential cause produces stall at idle. *ASE Task Reference: L1 Domain D — Fuel Systems and Air Induction Diagnosis. Review subsection L.4.*

12. B — Verify the concern at idle, monitor scan data, identify the cause. Idle-specific stall diagnosis requires symptom-matching conditions. The fault must be observed at idle. *ASE Task Reference: L1 Domain D — Fuel Systems and Air Induction Diagnosis. Review subsection L.4.*

13. D — Issues affecting cylinders 1 and 3 specifically (ignition, fuel, or sensor). Random misfire (P0300) plus specific cylinders 1 and 3 indicates these cylinders are most affected. Multiple causes can produce this pattern. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

14. A — Verify the concern, isolate affected cylinders, identify common and cylinder-specific causes. Combined misfire diagnosis requires identifying which cylinders are affected and why. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

15. C — Recent fuel cap replacement may not have addressed all leak sources. Recent fuel cap with continued P0442 indicates other leak sources exist. *ASE Task Reference: L1 Domain E — Emissions Control Systems Diagnosis. Review subsection L.5.*

16. B — Verify all repairs, perform smoke test, identify any remaining leaks. EVAP service verification requires smoke testing for any remaining leaks. *ASE Task Reference: L1 Domain E — Emissions Control Systems Diagnosis. Review subsection L.5.*

17. A — Bank 1 specific lean condition (vacuum leak, injector, fuel distribution to bank 1). Bank 1 LTFT +18% with bank 2 +5% is the diagnostic signature of bank-specific lean. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

18. D — Verify the concern, isolate to the affected bank, identify the cause. Bank-specific lean diagnosis requires isolation methodology. The affected bank reveals where to focus. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

19. C — Cold-weather specific issue (sensor accuracy at cold, fuel mixture at cold, fuel quality). Cold-weather specific symptoms isolate to cold-weather causes. Multiple potential causes manifest at

cold conditions. *ASE Task Reference: L1 Domain D — Fuel Systems and Air Induction Diagnosis. Review subsection L.4.*

20. B — Verify the concern under matching temperature conditions, monitor scan data, identify the cause. Temperature-specific diagnosis requires matching conditions. The fault must be observed at the conditions. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

21. D — MAF circuit fault (sensor failed, wiring issue, connector issue). P0102 with default MAF reading indicates circuit fault. The PCM cannot read the actual sensor. *ASE Task Reference: L1 Domain B — Computerized Powertrain Controls Diagnosis. Review subsection L.2.*

22. A — Verify the sensor circuit, identify the fault, address the cause. MAF circuit fault diagnosis requires circuit verification. Each potential cause must be evaluated. *ASE Task Reference: L1 Domain B — Computerized Powertrain Controls Diagnosis. Review subsection L.2.*

23. B — Marginal CKP sensor or wiring causing intermittent signal loss. Intermittent P0335 with random stalls indicates marginal CKP. The sensor or wiring fails intermittently. *ASE Task Reference: L1 Domain B — Computerized Powertrain Controls Diagnosis. Review subsection L.2.*

24. D — Verify the concern, perform wiggle testing, monitor signal under conditions. Intermittent CKP diagnosis requires symptom-matching and physical testing. *ASE Task Reference: L1 Domain B — Computerized Powertrain Controls Diagnosis. Review subsection L.2.*

25. C — Restricted EGR passages from carbon buildup, faulty EGR valve, or vacuum supply issue. P0401 with EGR commanded but no flow indicates flow restriction or valve issue. *ASE Task Reference: L1 Domain E — Emissions Control Systems Diagnosis. Review subsection L.5.*

26. A — Verify the concern, inspect EGR passages and valve, identify the cause. EGR insufficient flow diagnosis requires component inspection. *ASE Task Reference: L1 Domain E — Emissions Control Systems Diagnosis. Review subsection L.5.*

27. C — The trim correction is hiding a deeper rich condition (fuel system, injector, oil consumption). High CO with lean trims is a complex case study where the trim is correcting for an underlying rich condition. The lean trim is the symptom, not the cause. *ASE Task Reference: L1 Domain F — I/M Failure Diagnosis. Review subsection L.6.*

28. B — Verify the concern, evaluate the rich source the trim is correcting, address the cause. CO failure with lean trims requires identification of the underlying rich source. *ASE Task Reference: L1 Domain F — I/M Failure Diagnosis. Review subsection L.6.*

29. D — Damaged or worn fuel filler neck or seal. Smoke test showing leak at filler neck identifies the leak source. *ASE Task Reference: L1 Domain E — Emissions Control Systems Diagnosis. Review subsection L.5.*

30. A — Verify all repairs, perform smoke test, allow monitor completion, verify proper operation. Fuel filler neck repair verification requires comprehensive approach. *ASE Task Reference: L1 Domain E — Emissions Control Systems Diagnosis. Review subsection L.5.*

31. D — Altitude-related condition affecting fuel mixture, ignition, or component performance. Altitude-specific symptoms indicate altitude-related operating conditions. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

32. B — Verify the symptom under matching altitude, monitor scan data, identify the cause. Altitude-related diagnosis requires matching conditions. *ASE Task Reference: L1 Domain A — General Powertrain Diagnosis. Review subsection L.1.*

33. C — Catalyst damage from prior misfire (before recent ignition service) requiring catalyst attention. P0420 after recent ignition repair points to catalyst damage from prior misfire. *ASE Task Reference: L1 Domain E — Emissions Control Systems Diagnosis. Review subsection L.5.*

34. A — Verify all repairs, monitor catalyst efficiency, evaluate catalyst condition, address as needed. Post-misfire catalyst evaluation requires monitoring and evaluation. *ASE Task Reference: L1 Domain E — Emissions Control Systems Diagnosis. Review subsection L.5.*

35. C — Intermittent EVAP fault that occurred under specific conditions not present during testing. P0440 with current pass indicates intermittent fault. *ASE Task Reference: L1 Domain E — Emissions Control Systems Diagnosis. Review subsection L.5.*

36. B — Verify the concern, test under varied conditions, identify the cause. Intermittent EVAP diagnosis requires testing under varied conditions. *ASE Task Reference: L1 Domain E — Emissions Control Systems Diagnosis. Review subsection L.5.*

37. A — CKP/CMP relearn required after battery disconnect, or sensor circuit issue. Recent battery replacement with CKP/CMP DTCs strongly indicates relearn requirement. *ASE Task Reference: L1 Domain B — Computerized Powertrain Controls Diagnosis. Review subsection L.2.*

38. C — Use scan tool to perform manufacturer-specified relearn procedure, verify proper operation. CKP/CMP relearn requires manufacturer-specified procedure. *ASE Task Reference: L1 Domain B — Computerized Powertrain Controls Diagnosis. Review subsection L.2.*

39. B — Issue from recent fuel system service (clogged filter, contamination, injector issue). Misfire after fuel system service strongly indicates service-related cause. *ASE Task Reference: L1 Domain D — Fuel Systems and Air Induction Diagnosis. Review subsection L.4.*

40. D — Verify the concern, evaluate recent service for service-related causes, address the cause. Post-fuel-service diagnosis requires consideration of the recent service. *ASE Task Reference: L1 Domain D — Fuel Systems and Air Induction Diagnosis. Review subsection L.4.*

41. A — A common cause affecting multiple modules (network, power, ground, or shared sensor). Simultaneous multi-module DTCs indicate common cause. *ASE Task Reference: L1 Domain B — Computerized Powertrain Controls Diagnosis. Review subsection L.2.*

42. B — Verify the concern, identify common causes, address findings systematically. Simultaneous multi-module diagnosis requires identification of common causes. *ASE Task Reference: L1 Domain B — Computerized Powertrain Controls Diagnosis. Review subsection L.2.*

43. C — Boost-specific issue (boost leak, wastegate, intercooler restriction, or turbo issue). High-boost-specific symptoms isolate to boost system. Each potential cause manifests at high boost. *ASE Task Reference: L1 Domain D — Fuel Systems and Air Induction Diagnosis. Review subsection L.4.*

44. B — Verify the symptom under high boost, monitor boost data, identify the cause. Boost-specific diagnosis requires high-boost conditions. *ASE Task Reference: L1 Domain D — Fuel Systems and Air Induction Diagnosis. Review subsection L.4.*

45. A — Monitor enabling criteria not being met (specific RPM, load, ECT, or other condition). Catalyst monitor not completing indicates enabling criteria issue. *ASE Task Reference: L1 Domain B — Computerized Powertrain Controls Diagnosis. Review subsection L.2.*

46. D — Verify enabling criteria, identify the blocking factor, address the cause. Failed monitor completion diagnosis requires criteria verification. *ASE Task Reference: L1 Domain B — Computerized Powertrain Controls Diagnosis. Review subsection L.2.*

47. C — Oil-related issue affecting cam phaser operation (wrong oil, contaminated oil, or oil pressure). P0011/P0021 with recent oil change strongly indicates oil-related cause. *ASE Task Reference: L1 Domain B — Computerized Powertrain Controls Diagnosis. Review subsection L.2.*

48. B — Verify the concern, evaluate oil condition, monitor cam phaser operation, identify the cause. Cam phaser correlation diagnosis requires oil evaluation and monitoring. *ASE Task Reference: L1 Domain B — Computerized Powertrain Controls Diagnosis. Review subsection L.2.*

49. D — Idle relearn required after throttle body cleaning, or related throttle issue. P0507 after throttle body cleaning strongly indicates relearn requirement. *ASE Task Reference: L1 Domain D — Fuel Systems and Air Induction Diagnosis. Review subsection L.4.*

50. A — Use scan tool to perform manufacturer-specified relearn procedure, verify proper idle. Throttle body relearn requires manufacturer-specified procedure. *ASE Task Reference: L1 Domain D — Fuel Systems and Air Induction Diagnosis. Review subsection L.4.*