PRACTICE EXAM 4: A8 SIMULATION — ENGINE PERFORMANCE

1. The proper purpose of the primary ignition circuit is to:

A. Apply compressed air to the system

B. Provide low-voltage current to the coil primary winding to build the magnetic field

C. Replace the ignition coil as a precaution

D. Filter contaminants from the system

2. The proper purpose of the secondary ignition circuit is to:

A. Apply compressed air to the system

B. Replace the ignition coil as a precaution

C. Visually inspect for visible damage only

D. Deliver high-voltage spark from the coil to the spark plugs for combustion

3. The proper procedure for testing primary ignition circuit operation is to:

A. Apply compressed air to the system

B. Replace the ignition coil as a precaution

C. Verify proper voltage and ground at the coil, monitor primary current with scope

D. Filter contaminants from the system

4. The proper procedure for testing secondary ignition voltage is to:

A. Use an ignition oscilloscope to monitor firing voltage and pattern at the coil output

B. Apply compressed air to the system

C. Replace the ignition coil as a precaution

D. Visually inspect for visible damage only

5. A vehicle's secondary ignition firing voltage is significantly higher than spec. The MOST likely cause is:

A. Apply compressed air to the system

B. Replace the ignition coil as a precaution

C. Replace the spark plugs as a precaution

D. Worn spark plugs, increased plug gap, or high circuit resistance

6. The proper procedure for diagnosing high secondary firing voltage is to:

A. Apply compressed air to the system

B. Verify the concern, monitor secondary pattern, identify the cause

C. Replace the spark plugs as a precaution

D. Visually inspect for visible damage only

7. A vehicle's secondary ignition firing voltage is significantly lower than spec. The MOST likely cause is:

A. Apply compressed air to the system

B. Replace the spark plugs as a precaution

C. Replace the ignition coil as a precaution

D. Fouled spark plugs, reduced plug gap, low circuit resistance, or coil issue

8. The proper procedure for diagnosing low secondary firing voltage is to:

A. Verify the concern, monitor secondary pattern, identify the cause

B. Apply compressed air to the system

C. Replace the spark plugs as a precaution

D. Visually inspect for visible damage only

9. The proper purpose of the firing line on a secondary ignition pattern is to:

A. Apply compressed air to the system

B. Replace the ignition coil as a precaution

C. Show the voltage required to bridge the spark plug gap

D. Filter contaminants from the system

10. The proper purpose of the intermediate section on a secondary ignition pattern is to:

A. Apply compressed air to the system

B. Replace the ignition coil as a precaution

C. Replace the spark plugs as a precaution

D. Show the voltage required to maintain the spark across the gap

11. The proper purpose of the dwell section on a secondary ignition pattern is to:

A. Apply compressed air to the system

B. Show the period when the coil primary is energized to build the magnetic field

C. Replace the ignition coil as a precaution

D. Filter contaminants from the system

12. The proper procedure for analyzing a complete secondary ignition pattern is to:

A. Apply compressed air to the system

B. Replace the ignition coil as a precaution

C. Replace the spark plugs as a precaution

D. Examine firing voltage, firing line, intermediate section, dwell, and compare to spec

13. A vehicle equipped with coil-on-plug (COP) ignition has been brought in for diagnosis. The proper purpose of COP ignition is to:

A. Place individual coils directly on each spark plug, eliminating high-voltage cables

B. Apply compressed air to the system

C. Replace the COP coils as a precaution

D. Filter contaminants from the system

14. The proper procedure for diagnosing COP ignition faults is to:

A. Apply compressed air to the coils

B. Replace the coils as a precaution

C. Verify the concern, retrieve DTCs, isolate affected cylinder, test coil and circuit

D. Visually inspect for visible damage only

15. A vehicle's COP system shows DTC P0301 (cylinder 1 misfire). The MOST appropriate diagnostic action is:

A. Apply compressed air to the system

B. Verify the concern, swap coil from cylinder 1 to another cylinder, observe if misfire follows

C. Replace the coil as a precaution

D. Replace the brake fluid as the only step

16. The proper procedure for testing a COP ignition coil is to:

A. Apply compressed air to the coil

B. Replace the coil as a precaution

C. Replace the PCM as a precaution

D. Verify proper power and ground, swap-test if needed, and test resistance per spec

17. A vehicle equipped with distributorless ignition system (DIS) has been brought in for diagnosis. The proper purpose of DIS is to:

A. Use multiple coils that fire spark plugs in pairs through the waste-spark method

B. Apply compressed air to the system

C. Replace the DIS as a precaution

D. Filter contaminants from the system

18. The proper procedure for diagnosing DIS faults is to:

A. Apply compressed air to the system

B. Replace the DIS coils as a precaution

C. Verify the concern, retrieve DTCs, isolate affected coil pair, test coil and circuit

D. Visually inspect for visible damage only

19. A vehicle's DIS system shows DTCs for misfire on cylinders 1 and 4 (cylinders that share a coil). The MOST likely cause is:

A. Apply compressed air to the system

B. The shared coil has failed, affecting both cylinders simultaneously

C. Replace the engine as a precaution

D. Replace the brake fluid as the only step

20. The proper purpose of the waste-spark concept is to:

A. Fire two spark plugs simultaneously, with one productive spark and one waste spark

B. Apply compressed air to the system

C. Replace the spark plugs as a precaution

D. Filter contaminants from the system

21. The proper procedure for diagnosing waste-spark system faults is to:

A. Apply compressed air to the system

B. Replace the waste-spark coils as a precaution

C. Replace the PCM as a precaution

D. Verify the concern, retrieve DTCs, identify which paired cylinders are affected

22. A vehicle equipped with a distributor-based ignition has been brought in for diagnosis. The proper purpose of a distributor is to:

A. Apply compressed air to the system

B. Replace the distributor as a precaution

C. Distribute the secondary high voltage to each spark plug in firing order

D. Filter contaminants from the system

23. The proper procedure for diagnosing distributor ignition faults is to:

A. Apply compressed air to the system

B. Verify the concern, inspect cap and rotor, verify timing, identify the cause

C. Replace the distributor as a precaution

D. Visually inspect for visible damage only

24. A vehicle's spark plug visual inspection shows light tan to gray color and proper gap. The MOST likely diagnostic finding is:

A. Apply compressed air to the system

B. Replace the spark plugs as a precaution

C. Normal combustion and proper plug operation

D. Replace the brake fluid as the only step

25. A vehicle's spark plug shows black sooty deposits with dry condition. The MOST likely cause is:

A. Rich fuel mixture or weak ignition

B. Apply compressed air to the system

C. Replace the spark plugs as a precaution

D. Replace the brake fluid as the only step

26. A vehicle's spark plug shows black oily deposits. The MOST likely cause is:

A. Apply compressed air to the system

B. Replace the spark plugs as a precaution

C. Replace the engine as a precaution

D. Oil consumption from worn rings, valve seals, or PCV system fault

27. A vehicle's spark plug shows white or light gray deposits with electrode erosion. The MOST likely cause is:

A. Apply compressed air to the system

B. Lean fuel mixture, advanced timing, or detonation

C. Replace the spark plugs as a precaution

D. Replace the brake fluid as the only step

28. A vehicle's spark plug shows melted electrode tips. The MOST likely cause is:

A. Pre-ignition, detonation, lean mixture, or wrong heat range plug

B. Apply compressed air to the system

C. Replace the spark plugs as a precaution

D. Replace the brake fluid as the only step

29. The proper procedure for replacing spark plugs is to:

A. Apply compressed air to the spark plugs

B. Replace the spark plugs as a precaution

C. Use proper torque, anti-seize per spec, gap to specification, and verify proper installation

D. Visually inspect for visible damage only

30. The proper procedure for setting spark plug gap is to:

A. Apply compressed air to the spark plug

B. Replace the spark plug as a precaution

C. Replace the PCM as a precaution

D. Use a feeler gauge to measure gap, adjust to specification with proper tool

31. A vehicle has been brought in with a complaint of misfire only at cold start. The MOST likely cause is:

A. Apply compressed air to the system

B. Worn spark plugs, marginal coil, fuel mixture issue at cold start, or sensor issue

C. Replace the spark plugs as a precaution

D. Replace the brake fluid as the only step

32. The proper procedure for diagnosing cold-start misfire is to:

A. Verify the concern under cold conditions, monitor scan data during cold start, identify the cause

B. Apply compressed air to the system

C. Replace the spark plugs as a precaution

D. Replace the brake fluid as the only step

33. A vehicle has been brought in with a complaint of misfire under load only. The MOST likely cause is:

A. Apply compressed air to the system

B. Replace the spark plugs as a precaution

C. Worn spark plugs, marginal coil, fuel pressure issue under load, or compression issue

D. Replace the brake fluid as the only step

34. The proper procedure for diagnosing load-related misfire is to:

A. Apply compressed air to the system

B. Replace the spark plugs as a precaution

C. Replace the engine as a precaution

D. Verify the concern under load conditions, monitor scan data during load, identify the cause

35. The proper purpose of ignition timing is to:

A. Apply compressed air to the system

B. Initiate combustion at the proper crank angle for optimal pressure development

C. Replace the ignition system as a precaution

D. Filter contaminants from the system

36. The proper procedure for verifying ignition timing on modern vehicles is to:

A. Monitor scan data for spark advance, compare to expected values for conditions

B. Apply compressed air to the system

C. Replace the spark plugs as a precaution

D. Visually inspect for visible damage only

37. A vehicle has been brought in with a complaint of timing-related issues. The MOST likely cause is:

A. Apply compressed air to the system

B. Replace the spark plugs as a precaution

C. Faulty crank/cam sensor, faulty knock sensor, or PCM control issue

D. Replace the brake fluid as the only step

38. The proper procedure for diagnosing timing control faults is to:

A. Apply compressed air to the system

B. Verify the concern, retrieve DTCs, monitor timing data, identify the cause

C. Replace the PCM as a precaution

D. Replace the brake fluid as the only step

39. A vehicle has been brought in with a complaint of misfire that affects multiple cylinders intermittently. The MOST likely cause is:

A. A common cause affecting multiple cylinders (fuel system, ignition power, or ground)

B. Apply compressed air to the system

C. Replace the spark plugs as a precaution

D. Replace the brake fluid as the only step

40. The proper procedure for diagnosing multi-cylinder misfire is to:

A. Apply compressed air to the system

B. Replace the affected components as a precaution

C. Replace the engine as a precaution

D. Verify the concern, identify common causes, monitor scan data, identify the cause

41. A vehicle equipped with smart coils has been brought in for diagnosis. The proper purpose of smart coils is to:

A. Apply compressed air to the coils

B. Provide internal ignition control electronics, allowing the PCM to issue logic-level commands

C. Replace the coils as a precaution

D. Filter contaminants from the system

42. The proper procedure for diagnosing smart coil faults is to:

A. Apply compressed air to the coils

B. Replace the coils as a precaution

C. Verify the concern, retrieve DTCs, follow manufacturer-specified procedure

D. Replace the brake fluid as the only step

43. A vehicle has been brought in with the following findings: complaint of misfire, worn spark plugs, weak coil, contaminated air filter, and DTCs related to ignition. The MOST appropriate action is:

A. Apply compressed air to the system

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

C. Address all findings: replace plugs, replace coil, replace air filter, clear DTCs, verify

D. Replace the brake fluid as the only step

44. The proper procedure for verifying ignition service after multi-component repair is to:

A. Verify all repairs, road test under varied conditions, clear DTCs, verify proper operation

B. Apply compressed air to the system

C. Replace the ignition system as a precaution

D. Replace the brake fluid as the only step

45. A vehicle has been brought in with a complaint of sudden engine stall while driving. The MOST likely cause is:

A. Apply compressed air to the system

B. Replace the engine as a precaution

C. Replace the PCM as a precaution

D. Failed crank/cam sensor, ignition power issue, fuel pump issue, or PCM fault

46. The proper procedure for diagnosing sudden engine stall is to:

A. Apply compressed air to the system

B. Verify the concern under conditions, retrieve any DTCs, identify common causes

C. Replace the affected components as a precaution

D. Replace the brake fluid as the only step

47. A vehicle has been brought in with multiple ignition-related DTCs. The MOST appropriate action is:

A. Apply compressed air to the system

B. Replace the affected components as a precaution

C. Verify each concern, identify common causes, address findings systematically

D. Replace the brake fluid as the only step

48. The proper procedure for verifying ignition service is to:

A. Apply compressed air to the system

B. Replace the ignition system as a precaution

C. Replace the spark plugs as a precaution

D. Verify all repairs, monitor secondary patterns, road test, verify proper operation

49. A vehicle has been brought in for routine ignition inspection. The technician finds spark plugs at 75,000 miles with proper appearance. The MOST appropriate action is:

A. Inform the customer the plugs are within spec, document for next service interval

B. Apply compressed air to the spark plugs

C. Replace the spark plugs as a precaution

D. Replace the brake fluid as the only step

50. The proper procedure for recommending ignition service is to:

A. Apply compressed air to the system

B. Test relevant components, verify performance, evaluate against interval, provide recommendations

C. Replace the ignition system as a precaution

D. Replace the brake fluid as the only step

PRACTICE EXAM 4: A8 SIMULATION — ANSWER KEY, EXPLANATIONS, AND TASK REMEDIATION

---

1. B — Provide low-voltage current to the coil primary winding to build the magnetic field. The primary circuit energizes the coil for spark generation. The PCM controls primary current to fire the coil. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

2. D — Deliver high-voltage spark from the coil to the spark plugs for combustion. The secondary circuit transfers spark energy to the cylinders. High voltage is required to bridge the spark plug gap. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

3. C — Verify proper voltage and ground at the coil, monitor primary current with scope. Primary circuit testing requires verification of fundamentals and current monitoring. The current waveform reveals proper coil operation. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

4. A — Use an ignition oscilloscope to monitor firing voltage and pattern at the coil output. Secondary voltage testing requires an oscilloscope. The pattern reveals comprehensive system condition. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

5. D — Worn spark plugs, increased plug gap, or high circuit resistance. High firing voltage indicates increased resistance in the spark path. Each cause increases the voltage required to bridge the gap. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

6. B — Verify the concern, monitor secondary pattern, identify the cause. High firing voltage diagnosis requires pattern analysis. The pattern reveals which component or circuit issue is present. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

7. D — Fouled spark plugs, reduced plug gap, low circuit resistance, or coil issue. Low firing voltage indicates reduced resistance or coil weakness. Each cause produces this pattern signature. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

8. A — Verify the concern, monitor secondary pattern, identify the cause. Low firing voltage diagnosis requires pattern analysis. The pattern reveals the specific issue. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

9. C — Show the voltage required to bridge the spark plug gap. The firing line is the initial voltage spike. This voltage must be sufficient to ionize the gap. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

10. D — Show the voltage required to maintain the spark across the gap. The intermediate section follows the firing line. Once the gap is ionized, lower voltage maintains the spark. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

11. B — Show the period when the coil primary is energized to build the magnetic field. The dwell period is when the coil charges. Sufficient dwell ensures full coil saturation for proper spark. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

12. D — Examine firing voltage, firing line, intermediate section, dwell, and compare to spec. Pattern analysis requires evaluation of all sections. Each section reveals different aspects of system operation. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

13. A — Place individual coils directly on each spark plug, eliminating high-voltage cables. COP eliminates the spark plug wires. Each cylinder has its own dedicated coil. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

14. C — Verify the concern, retrieve DTCs, isolate affected cylinder, test coil and circuit. COP diagnosis requires cylinder-specific approach. Each cylinder is independently testable. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

15. B — Verify the concern, swap coil from cylinder 1 to another cylinder, observe if misfire follows. COP swap-testing isolates coil-specific faults. The misfire follows the failed coil to the new cylinder. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

16. D — Verify proper power and ground, swap-test if needed, and test resistance per spec. COP coil testing requires multiple verification methods. Each method reveals different aspects of coil condition. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

17. A — Use multiple coils that fire spark plugs in pairs through the waste-spark method. DIS uses paired coils. Two cylinders share each coil through waste-spark firing. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

18. C — Verify the concern, retrieve DTCs, isolate affected coil pair, test coil and circuit. DIS diagnosis isolates by coil pair. Faults affect both cylinders sharing the coil. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

19. B — The shared coil has failed, affecting both cylinders simultaneously. Misfire on paired cylinders is the diagnostic signature of failed shared coil. Both cylinders depend on the same coil. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

20. A — Fire two spark plugs simultaneously, with one productive spark and one waste spark. Waste-spark uses paired firing. One cylinder is on compression stroke (productive), the other on exhaust stroke (waste). *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

21. D — Verify the concern, retrieve DTCs, identify which paired cylinders are affected. Waste-spark diagnosis identifies the affected pair. Faults manifest on both paired cylinders. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

22. C — Distribute the secondary high voltage to each spark plug in firing order. The distributor routes secondary voltage. The cap and rotor direct spark to the proper cylinder. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

23. B — Verify the concern, inspect cap and rotor, verify timing, identify the cause. Distributor diagnosis requires cap and rotor inspection plus timing verification. Each component contributes to potential issues. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

24. C — Normal combustion and proper plug operation. Light tan to gray plugs indicate proper combustion. The appearance reveals normal engine operating condition. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

25. A — Rich fuel mixture or weak ignition. Black dry sooty deposits indicate incomplete combustion. Each cause produces unburned fuel deposits on the plug. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

26. D — Oil consumption from worn rings, valve seals, or PCV system fault. Black oily deposits indicate oil entering the cylinder. Each cause allows oil into the combustion chamber. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

27. B — Lean fuel mixture, advanced timing, or detonation. White or light gray deposits indicate excessive heat. Each cause produces high combustion temperatures. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

28. A — Pre-ignition, detonation, lean mixture, or wrong heat range plug. Melted electrodes indicate severe overheating. Each cause exceeds the plug's thermal capacity. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

29. C — Use proper torque, anti-seize per spec, gap to specification, and verify proper installation. Spark plug installation requires proper torque and gap. Improper installation can damage the plug or threads. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

30. D — Use a feeler gauge to measure gap, adjust to specification with proper tool. Spark plug gap setting requires proper measurement and adjustment. The gap affects firing voltage and combustion. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

31. B — Worn spark plugs, marginal coil, fuel mixture issue at cold start, or sensor issue. Cold-start misfire has multiple potential causes. Each manifests under cold start conditions. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

32. A — Verify the concern under cold conditions, monitor scan data during cold start, identify the cause. Cold-start diagnosis requires symptom-matching conditions. The fault must be observed when it occurs. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

33. C — Worn spark plugs, marginal coil, fuel pressure issue under load, or compression issue. Load-related misfire indicates inability to maintain combustion under stress. Each cause produces this symptom. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

34. D — Verify the concern under load conditions, monitor scan data during load, identify the cause. Load-related diagnosis requires symptom-matching conditions. The fault must be observed under load. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

35. B — Initiate combustion at the proper crank angle for optimal pressure development. Ignition timing controls combustion phasing. Proper timing maximizes power and efficiency. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

36. A — Monitor scan data for spark advance, compare to expected values for conditions. Modern timing verification uses scan tool. The advance value reflects PCM commands. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

37. C — Faulty crank/cam sensor, faulty knock sensor, or PCM control issue. Timing-related issues have multiple potential causes. Each affects the PCM's ability to command proper timing. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

38. B — Verify the concern, retrieve DTCs, monitor timing data, identify the cause. Timing control diagnosis requires scan tool integration. The timing data reveals proper or improper operation. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

39. A — A common cause affecting multiple cylinders (fuel system, ignition power, or ground). Multi-cylinder misfire indicates a common cause. Individual cylinder issues do not affect multiple cylinders simultaneously. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

40. D — Verify the concern, identify common causes, monitor scan data, identify the cause. Multi-cylinder misfire diagnosis requires looking for common causes. Multiple cylinders affected together suggests shared issue. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

41. B — Provide internal ignition control electronics, allowing the PCM to issue logic-level commands. Smart coils contain switching electronics. The PCM commands the coil with low-current logic signals. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

42. C — Verify the concern, retrieve DTCs, follow manufacturer-specified procedure. Smart coil diagnosis requires manufacturer-specific approach. Each design has specific diagnostic procedures. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

43. C — Address all findings: replace plugs, replace coil, replace air filter, clear DTCs, verify. Multiple ignition findings each contribute to the misfire. Comprehensive repair addresses each cause. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

44. A — Verify all repairs, road test under varied conditions, clear DTCs, verify proper operation. Ignition service verification requires comprehensive approach. Each step verifies different aspects. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

45. D — Failed crank/cam sensor, ignition power issue, fuel pump issue, or PCM fault. Sudden stall has multiple potential causes. Each can produce immediate engine shutdown. *ASE Task Reference: A8 Domain A — General Engine Diagnosis. Review subsection 8.1.*

46. B — Verify the concern under conditions, retrieve any DTCs, identify common causes. Sudden stall diagnosis requires identifying the cause. DTCs and observation reveal the source. *ASE Task Reference: A8 Domain A — General Engine Diagnosis. Review subsection 8.1.*

47. C — Verify each concern, identify common causes, address findings systematically. Multiple ignition DTCs require systematic approach. Common causes often produce multiple symptoms. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

48. D — Verify all repairs, monitor secondary patterns, road test, verify proper operation. Ignition service verification requires multi-method approach. Pattern monitoring confirms proper operation. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

49. A — Inform the customer the plugs are within spec, document for next service interval. Proper plugs at spec intervals support proper service planning. Customer information enables informed decisions. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*

50. B — Test relevant components, verify performance, evaluate against interval, provide recommendations. Ignition service recommendations require comprehensive evaluation. Each factor contributes to proper recommendation. *ASE Task Reference: A8 Domain C — Ignition System Diagnosis and Repair. Review subsection 8.3.*