PRACTICE EXAM 6: A5 SIMULATION — BRAKES

1. A vehicle has been brought in with the following findings: complaint of multiple electronic brake warning lights illuminated, stored DTCs for ABS, traction control, and stability control modules, and the brake control module is not communicating on the CAN bus. The MOST likely cause is:

A. A worn power steering pulley

B. A CAN bus communication fault, failed brake control module, or open circuit in the module power or ground

C. A worn ball joint

D. Air in the clutch hydraulic system

2. The proper procedure for diagnosing a brake control module CAN bus communication fault is to:

A. Replace the brake control module as the most direct repair

B. Replace the steering rack as a precaution

C. Replace the brake fluid as the only step

D. Use a scan tool to verify CAN bus communication, check for network DTCs, inspect bus wiring, and verify module power and ground

3. A vehicle equipped with integrated brake control has been brought in with a complaint of ABS warning light. Scan tool data shows DTCs for both ABS and engine control module. The MOST likely cause is:

A. A wheel speed sensor signal fault that affects both ABS operation and engine torque management used by traction control

B. A worn power steering pulley

C. A worn ball joint

D. Air in the clutch hydraulic system

4. The proper procedure for diagnosing brake-engine integration faults is to:

A. Apply compressed air to the system

B. Replace the brake control module as the most direct repair

C. Verify all sensor signals, retrieve DTCs from all affected modules, and identify the specific cause shared between modules

D. Replace the steering rack as a precaution

5. A vehicle equipped with adaptive cruise control has been brought in with a complaint that the system is not maintaining proper following distance. The MOST likely cause is:

A. A worn power steering pulley

B. A failed forward-facing radar, miscalibrated radar, or fault in the adaptive cruise control module

C. A worn ball joint

D. Air in the clutch hydraulic system

6. The proper procedure for diagnosing adaptive cruise control faults is to:

A. Replace the adaptive cruise control module as the most direct repair

B. Replace the steering rack as a precaution

C. Replace the brake fluid as the only step

D. Verify the customer concern, retrieve stored DTCs, monitor scan data for sensor inputs, and verify proper component operation

7. A vehicle equipped with automatic emergency braking has been brought in with a complaint of inappropriate AEB activation. The MOST likely cause is:

A. A failed forward-facing camera, miscalibrated camera, sensor obstruction, or fault in the AEB module

B. A worn power steering pulley

C. A worn ball joint

D. Air in the clutch hydraulic system

8. The proper procedure for verifying AEB sensor calibration after service is to:

A. Apply compressed air to the camera

B. Replace the AEB module as a precaution

C. Replace the brake fluid as the only step

D. Park on a level surface, perform the manufacturer-specified calibration with proper targets, and verify proper operation

9. A vehicle equipped with electronic stability control has been brought in with a complaint of stability control warning light. Scan tool data shows the steering angle sensor is reporting an offset of 5 degrees from center. The MOST likely cause is:

A. A worn power steering pulley

B. A worn ball joint

C. The steering angle sensor needs recalibration after recent service, or the sensor has failed

D. Air in the clutch hydraulic system

10. The proper procedure for verifying steering angle sensor calibration after multiple module work is to:

A. Apply compressed air to the sensor

B. Center the steering wheel mechanically, perform the manufacturer-specified calibration with a scan tool, and verify the calibration through scan tool data

C. Replace the sensor as a precaution

D. Replace the brake fluid as the only step

11. A vehicle has been brought in with the following findings: complaint of stability control warning light, multiple stored DTCs across stability control, ABS, and powertrain modules, and recent service to multiple chassis systems. The MOST likely cause is:

A. A worn power steering pulley

B. A worn ball joint

C. Multiple sensor calibrations are needed after the service, requiring the manufacturer-specified procedures for each affected sensor

D. Air in the clutch hydraulic system

12. The proper procedure for completing comprehensive chassis service is to:

A. Identify all required calibrations, perform each per the manufacturer's procedure, clear stored DTCs, and verify proper operation

B. Apply compressed air to the chassis

C. Replace all modules as a precaution

D. Replace the brake fluid as the only step

13. A vehicle equipped with brake-by-wire has been brought in with a complaint of complete brake pedal failure. Scan tool data shows the brake-by-wire module is not communicating. The MOST likely cause is:

A. A worn power steering pulley

B. A worn ball joint

C. Air in the clutch hydraulic system

D. A failed brake-by-wire module, open circuit in the module power, or CAN bus communication fault

14. The proper procedure for diagnosing brake-by-wire failure is to:

A. Apply compressed air to the system

B. Verify module power and ground, retrieve stored DTCs, monitor scan data, and follow the manufacturer's specific diagnostic procedure

C. Replace the brake-by-wire module as the most direct repair

D. Replace the brake fluid as the only step

15. A vehicle's brake-by-wire system requires reprogramming after module replacement. The proper procedure is to:

A. Apply compressed air to the module

B. Replace the module as a precaution

C. Replace the brake fluid as the only step

D. Use the manufacturer's specified programming procedure with the proper scan tool, verify the programming was successful, and verify proper operation

16. The proper purpose of brake control module software updates is to:

A. Address known software issues, improve system operation, or add new features per the manufacturer's specifications

B. Generate hydraulic pressure for the brake system

C. Drive the brake pump during operation

D. Filter contaminants from the brake fluid

17. A vehicle equipped with regenerative braking on a hybrid has been brought in with a complaint of inconsistent brake feel. Scan tool data shows the hybrid system is functioning normally. The MOST likely cause is:

A. A worn power steering pulley

B. A worn ball joint

C. A friction brake system issue (worn pads, contamination, hydraulic issue) affecting the friction brake portion of the regen-friction transition

D. Air in the clutch hydraulic system

18. The proper procedure for diagnosing regen-friction brake feel issues is to:

A. Apply compressed air to the brakes

B. Verify hybrid system function, inspect friction brake components, and identify whether the issue is in the hybrid system or friction brakes

C. Replace the brakes as a precaution

D. Replace the master cylinder as a precaution

19. A vehicle equipped with an electric vehicle has been brought in for brake service. The proper procedure for EV brake service is to:

A. Follow the manufacturer-specified high-voltage isolation procedure, verify zero voltage, perform brake service per specification, and verify proper operation

B. Apply compressed air to the brakes

C. Replace the brakes as a precaution

D. Replace the brake fluid as the only step

20. The proper procedure for verifying EV high-voltage isolation is to:

A. Apply compressed air to the system

B. Replace the master cylinder as a precaution

C. Replace the brakes as a precaution

D. Follow the manufacturer-specified isolation procedure, verify zero voltage with proper PPE-rated meter, and use proper PPE throughout the service

21. A vehicle has been brought in with a complaint of brake pulsation that occurs only at highway speeds. The MOST likely cause is:

A. A worn power steering pulley

B. A worn ball joint

C. Rotor thickness variation, rotor runout, or hub flange runout becoming apparent at highway speed

D. Air in the clutch hydraulic system

22. The proper procedure for diagnosing speed-specific brake pulsation is to:

A. Apply compressed air to the rotors

B. Verify rotor specifications under road test conditions, measure runout and thickness variation, and identify the specific cause

C. Replace the rotors as a precaution

D. Replace the brake fluid as the only step

23. A vehicle has been brought in with a complaint of brake pedal that becomes hard during long downhill driving. The MOST likely cause is:

A. A worn power steering pulley

B. A worn ball joint

C. Air in the clutch hydraulic system

D. Brake fluid heat causing vapor lock, vacuum booster heat issues, or pad fade producing reduced brake assist

24. The proper procedure for preventing brake-related issues during prolonged downhill driving is to:

A. Use engine braking and downshifting to reduce reliance on friction brakes, avoiding heat buildup

B. Apply compressed air to the brakes

C. Replace the brakes as a precaution

D. Replace the master cylinder as a precaution

25. A vehicle has been brought in with the following findings: complaint of stability control warning light during sharp cornering only, scan data showing yaw sensor signal lag, and no stored DTCs during normal driving. The MOST likely cause is:

A. A worn power steering pulley

B. A worn ball joint

C. A failing yaw sensor that produces signal lag during high-rate cornering, even though the signal is acceptable during slower driving

D. Air in the clutch hydraulic system

26. The proper procedure for diagnosing intermittent stability control faults is to:

A. Apply compressed air to the system

B. Verify the symptom under conditions matching the customer concern, monitor scan data during the symptom, and identify the failing component

C. Replace the stability control module as a precaution

D. Replace the brake fluid as the only step

27. A vehicle's brake system has been bled with the manufacturer's recommended procedure. After bleeding, the customer reports a low pedal that requires pumping. The MOST likely cause is:

A. A worn power steering pulley

B. A worn ball joint

C. Air remaining in the system (often in ABS HCU), improper bleeding sequence, or loose bleeder

D. Air in the clutch hydraulic system

28. The proper procedure for verifying complete brake bleeding is to:

A. Verify firm pedal, road test under varied braking conditions, and verify no air remains in the system

B. Apply compressed air to the system

C. Replace the master cylinder as a precaution

D. Replace the brakes as a precaution

29. A vehicle has been brought in with a complaint of brake pedal feel that varies between firm and spongy. The MOST likely cause is:

A. A worn power steering pulley

B. A worn ball joint

C. Air in the clutch hydraulic system

D. Intermittent air entry into the system, master cylinder seal failure, or thermal effects on the hydraulic system

30. The proper procedure for diagnosing intermittent brake pedal feel issues is to:

A. Apply compressed air to the system

B. Replace the master cylinder as a precaution

C. Replace the brakes as a precaution

D. Verify the symptom under conditions matching the customer concern, inspect for leaks under pressure, perform master cylinder bench test if needed

31. A vehicle has been brought in with a complaint of brake noise during light brake application but not during heavy braking. The MOST likely cause is:

A. A worn power steering pulley

B. Brake pad/rotor surface compatibility issues, surface deposits, or pad chamfer wear affecting low-pressure brake operation

C. A worn ball joint

D. Air in the clutch hydraulic system

32. The proper procedure for diagnosing pressure-specific brake noise is to:

A. Apply compressed air to the brakes

B. Replace the pads as a precaution

C. Verify the conditions producing noise, inspect pad and rotor surfaces, identify compatibility or surface issues, and address accordingly

D. Replace the brake fluid as the only step

33. A vehicle equipped with electronic parking brake has been brought in with a complaint that the parking brake will not release. The MOST likely cause is:

A. A failed parking brake actuator, EPB module fault, mechanical bind in the system, or fault in the actuator wiring

B. A worn power steering pulley

C. A worn ball joint

D. Air in the clutch hydraulic system

34. The proper procedure for diagnosing electronic parking brake release faults is to:

A. Apply compressed air to the parking brake

B. Replace the parking brake module as the most direct repair

C. Verify the customer concern, retrieve stored DTCs, monitor scan data for actuator commands, and verify proper component operation

D. Replace the brake fluid as the only step

35. A vehicle has been brought in for routine brake service. The technician notes that the brake fluid was last replaced 4 years ago. The MOST appropriate action is:

A. Apply compressed air to the system

B. Recommend a complete brake fluid flush, since brake fluid degrades over time and absorbs moisture

C. Replace the master cylinder as a precaution

D. Replace the brakes as a precaution

36. The proper procedure for recommending brake fluid service is to:

A. Apply compressed air to the system

B. Replace the master cylinder as a precaution

C. Replace the brakes as a precaution

D. Test fluid moisture content, verify fluid condition, recommend service based on the manufacturer's interval and the test results

37. A vehicle equipped with brake hydraulic system has been brought in with a complaint of brake fluid leak. The leak is internal to the system (not visible externally). The MOST likely cause is:

A. A failed master cylinder internal seal, failed caliper internal seal, or failed wheel cylinder internal seal causing fluid loss without external visibility

B. A worn power steering pulley

C. A worn ball joint

D. Air in the clutch hydraulic system

38. The proper procedure for diagnosing internal brake fluid leak is to:

A. Apply compressed air to the system

B. Verify fluid level loss, inspect each component for visible leaks, perform bench tests on suspect components, and identify the failed component

C. Replace the master cylinder as a precaution

D. Replace the brakes as a precaution

39. A vehicle has been brought in with a complaint of grinding noise during braking. The technician finds the brake pads have worn through to the metal backing on multiple wheels. The MOST appropriate action is:

A. Apply compressed air to the brakes

B. Replace only the pads as the most direct repair

C. Replace pads and rotors (since pad metal contact damages rotors), inspect calipers and brake hardware, and verify no other damage occurred

D. Replace the brake fluid as the only step

40. The proper procedure for evaluating damage from severely worn pads is to:

A. Inspect rotors for damage, inspect calipers for piston damage, inspect brake hardware, and identify the full extent of repair required

B. Apply compressed air to the brakes

C. Replace the brakes as a precaution

D. Replace the master cylinder as a precaution

41. A vehicle has been brought in with a complaint of brake pedal that pulses during ABS activation but not during normal braking. Scan data shows ABS operating correctly. The MOST likely cause is:

A. A worn power steering pulley

B. The pedal pulse is normal ABS operation modulating brake pressure to prevent wheel lockup

C. A worn ball joint

D. Air in the clutch hydraulic system

42. The proper procedure for explaining ABS pulse during activation is to:

A. Apply compressed air to the system

B. Replace the ABS module as a precaution

C. Replace the brakes as a precaution

D. Inform the customer that ABS pedal pulse during activation is normal as the system modulates brake pressure to prevent wheel lockup

43. A vehicle equipped with hill-start assist has been brought in with a complaint that the system does not function. The MOST likely cause is:

A. A worn power steering pulley

B. A worn ball joint

C. A failed inclinometer, fault in the brake control module's hill-start program, or fault in the integration with stability control

D. Air in the clutch hydraulic system

44. The proper purpose of hill-start assist is to:

A. Hold brake pressure briefly when starting on an incline, preventing the vehicle from rolling backward as the driver transitions from brake to throttle

B. Generate hydraulic pressure for the brake system

C. Drive the brake pump during operation

D. Filter contaminants from the brake fluid

45. The proper procedure for verifying hill-start assist operation is to:

A. Apply compressed air to the system

B. Park on an incline, verify proper brake holding during transition from brake to throttle, and verify the system releases as the vehicle accelerates

C. Replace the brake control module as a precaution

D. Replace the brake fluid as the only step

PRACTICE EXAM 6: A5 SIMULATION — ANSWER KEY, EXPLANATIONS, AND TASK REMEDIATION

1. B — A CAN bus communication fault, failed brake control module, or open circuit in the module power or ground. Multiple electronic brake warning lights with no module communication is the diagnostic signature of CAN bus or module power issues. Each cause prevents proper communication. *ASE Task Reference: A5 Domain E — Electronic Brake, Traction, and Stability Control Systems. Review subsection 5.5.*

2. D — Use a scan tool to verify CAN bus communication, check for network DTCs, inspect bus wiring, and verify module power and ground. Brake control module CAN bus diagnosis requires comprehensive systematic approach. Each step provides different diagnostic information. *ASE Task Reference: A5 Domain E — Electronic Brake, Traction, and Stability Control Systems. Review subsection 5.5.*

3. A — A wheel speed sensor signal fault that affects both ABS operation and engine torque management used by traction control. Wheel speed sensor signals are shared between ABS and engine control modules. A signal fault affects both systems, producing DTCs in both. *ASE Task Reference: A5 Domain E — Electronic Brake, Traction, and Stability Control Systems. Review subsection 5.5.*

4. C — Verify all sensor signals, retrieve DTCs from all affected modules, and identify the specific cause shared between modules. Brake-engine integration fault diagnosis requires multi-module DTC retrieval and signal verification. The shared sensor or signal must be identified. *ASE Task Reference: A5 Domain E — Electronic Brake, Traction, and Stability Control Systems. Review subsection 5.5.*

5. B — A failed forward-facing radar, miscalibrated radar, or fault in the adaptive cruise control module. ACC depends on forward-facing sensors and module function. Sensor failure, miscalibration, or module fault each produce inappropriate following distance. *ASE Task Reference: A5 Domain E — Electronic Brake, Traction, and Stability Control Systems. Review subsection 5.5.*

6. D — Verify the customer concern, retrieve stored DTCs, monitor scan data for sensor inputs, and verify proper component operation. ACC diagnosis requires comprehensive systematic approach including sensor verification. Each step provides different diagnostic information. *ASE Task*

Reference: A5 Domain E — Electronic Brake, Traction, and Stability Control Systems. Review subsection 5.5.

7. A — A failed forward-facing camera, miscalibrated camera, sensor obstruction, or fault in the AEB module. Inappropriate AEB activation indicates the system is detecting false threats. Camera issues, miscalibration, or obstruction each produce false detection. *ASE Task Reference: A5 Domain E — Electronic Brake, Traction, and Stability Control Systems. Review subsection 5.5.*

8. D — Park on a level surface, perform the manufacturer-specified calibration with proper targets, and verify proper operation. AEB calibration requires precise vehicle positioning and proper procedure with manufacturer targets. Verification confirms proper operation. *ASE Task Reference: A5 Domain E — Electronic Brake, Traction, and Stability Control Systems. Review subsection 5.5.*

9. C — The steering angle sensor needs recalibration after recent service, or the sensor has failed. A 5-degree offset with centered steering wheel indicates calibration loss or sensor failure. Recalibration restores proper reference; if calibration fails, the sensor is failed. *ASE Task Reference: A5 Domain E — Electronic Brake, Traction, and Stability Control Systems. Review subsection 5.5.*

10. B — Center the steering wheel mechanically, perform the manufacturer-specified calibration with a scan tool, and verify the calibration through scan tool data. Steering angle calibration requires mechanical centering and scan tool calibration procedure. Verification confirms successful calibration. *ASE Task Reference: A5 Domain E — Electronic Brake, Traction, and Stability Control Systems. Review subsection 5.5.*

11. C — Multiple sensor calibrations are needed after the service, requiring the manufacturer-specified procedures for each affected sensor. Multiple module DTCs after service indicate multiple calibrations are required. Each affected sensor requires the manufacturer's specific procedure. *ASE Task Reference: A5 Domain E — Electronic Brake, Traction, and Stability Control Systems. Review subsection 5.5.*

12. A — Identify all required calibrations, perform each per the manufacturer's procedure, clear stored DTCs, and verify proper operation. Comprehensive chassis service requires identification of all required procedures, completion per specification, DTC clearing, and verification. *ASE Task Reference: A5 Domain E — Electronic Brake, Traction, and Stability Control Systems. Review subsection 5.5.*

13. D — A failed brake-by-wire module, open circuit in the module power, or CAN bus communication fault. Complete brake-by-wire failure with no module communication is the diagnostic signature of major system fault. Each cause prevents the module from operating. *ASE Task Reference: A5 Domain E — Electronic Brake, Traction, and Stability Control Systems. Review subsection 5.5.*

14. B — Verify module power and ground, retrieve stored DTCs, monitor scan data, and follow the manufacturer's specific diagnostic procedure. Brake-by-wire diagnosis requires comprehensive systematic approach with manufacturer specifications. The system architecture varies by manufacturer. *ASE Task Reference: A5 Domain E — Electronic Brake, Traction, and Stability Control Systems. Review subsection 5.5.*

15. D — Use the manufacturer's specified programming procedure with the proper scan tool, verify the programming was successful, and verify proper operation. Module programming requires the manufacturer's procedure and tool. Verification confirms successful programming. *ASE Task Reference: A5 Domain E — Electronic Brake, Traction, and Stability Control Systems. Review subsection 5.5.*

16. A — Address known software issues, improve system operation, or add new features per the manufacturer's specifications. Software updates address known issues and improve operation. Manufacturer specifications govern when updates are required and what they accomplish. *ASE Task Reference: A5 Domain E — Electronic Brake, Traction, and Stability Control Systems. Review subsection 5.5.*

17. C — A friction brake system issue (worn pads, contamination, hydraulic issue) affecting the friction brake portion of the regen-friction transition. With normal hybrid system function, inconsistent feel localizes the issue to the friction brake side. Worn pads, contamination, or hydraulic issues affect the transition feel. *ASE Task Reference: A5 Domain E — Electronic Brake, Traction, and Stability Control Systems. Review subsection 5.5.*

18. B — Verify hybrid system function, inspect friction brake components, and identify whether the issue is in the hybrid system or friction brakes. Regen-friction diagnosis requires verification of both systems. The issue may be in either; isolation identifies the specific cause. *ASE Task Reference: A5 Domain E — Electronic Brake, Traction, and Stability Control Systems. Review subsection 5.5.*

19. A — Follow the manufacturer-specified high-voltage isolation procedure, verify zero voltage, perform brake service per specification, and verify proper operation. EV brake service requires high-voltage safety procedures and manufacturer specifications. Both are critical for safe and proper service. *ASE Task Reference: A5 Domain E — Electronic Brake, Traction, and Stability Control Systems. Review subsection 5.5.*

20. D — Follow the manufacturer-specified isolation procedure, verify zero voltage with proper PPE-rated meter, and use proper PPE throughout the service. EV high-voltage isolation requires manufacturer procedure, voltage verification with proper PPE-rated meter, and PPE use. Each step is critical for technician safety. *ASE Task Reference: A5 Domain E — Electronic Brake, Traction, and Stability Control Systems. Review subsection 5.5.*

21. C — Rotor thickness variation, rotor runout, or hub flange runout becoming apparent at highway speed. Speed-specific brake pulsation is the diagnostic signature of rotor or hub geometry issues

that resonate at highway speeds. Each cause produces pulsation that becomes apparent at higher speeds. *ASE Task Reference: A5 Domain C — Disc Brake Diagnosis and Repair. Review subsection 5.3.*

22. B — Verify rotor specifications under road test conditions, measure runout and thickness variation, and identify the specific cause. Speed-specific pulsation diagnosis requires road test verification and component measurement. Each measurement reveals different aspects. *ASE Task Reference: A5 Domain C — Disc Brake Diagnosis and Repair. Review subsection 5.3.*

23. D — Brake fluid heat causing vapor lock, vacuum booster heat issues, or pad fade producing reduced brake assist. Hard pedal during downhill driving is the diagnostic signature of heat-related issues. Each cause reduces brake assist during the prolonged thermal load. *ASE Task Reference: A5 Domain F — Brake Tools, Fluids, and Service Specifications. Review subsection 5.6.*

24. A — Use engine braking and downshifting to reduce reliance on friction brakes, avoiding heat buildup. Brake-related downhill issues are prevented by reducing reliance on friction brakes. Engine braking and downshifting provide alternative speed control without thermal load. *ASE Task Reference: A5 Domain F — Brake Tools, Fluids, and Service Specifications. Review subsection 5.6.*

25. C — A failing yaw sensor that produces signal lag during high-rate cornering, even though the signal is acceptable during slower driving. Intermittent stability control faults during specific conditions indicate failing sensor that operates marginally under those conditions. *ASE Task Reference: A5 Domain E — Electronic Brake, Traction, and Stability Control Systems. Review subsection 5.5.*

26. B — Verify the symptom under conditions matching the customer concern, monitor scan data during the symptom, and identify the failing component. Intermittent stability control diagnosis requires symptom-matching conditions and real-time observation. The failing component reveals itself under those specific conditions. *ASE Task Reference: A5 Domain E — Electronic Brake, Traction, and Stability Control Systems. Review subsection 5.5.*

27. C — Air remaining in the system (often in ABS HCU), improper bleeding sequence, or loose bleeder. Low pedal after bleeding indicates incomplete air removal. ABS HCU air, bleeding sequence errors, or loose bleeders each leave air that produces the symptom. *ASE Task Reference: A5 Domain A — Hydraulic, Power Assist, and Parking Brake Systems. Review subsection 5.1.*

28. A — Verify firm pedal, road test under varied braking conditions, and verify no air remains in the system. Bleeding completion verification requires firm pedal verification, road test, and air-free confirmation. Each step verifies different aspects. *ASE Task Reference: A5 Domain A — Hydraulic, Power Assist, and Parking Brake Systems. Review subsection 5.1.*

29. D — Intermittent air entry into the system, master cylinder seal failure, or thermal effects on the hydraulic system. Variable pedal feel is the diagnostic signature of intermittent issues. Air entry,

seal failure, or thermal effects each produce inconsistent symptoms. *ASE Task Reference: A5 Domain A — Hydraulic, Power Assist, and Parking Brake Systems. Review subsection 5.1.*

30. D — Verify the symptom under conditions matching the customer concern, inspect for leaks under pressure, perform master cylinder bench test if needed. Intermittent pedal diagnosis requires symptom verification and pressure testing. Bench testing confirms internal master cylinder issues. *ASE Task Reference: A5 Domain A — Hydraulic, Power Assist, and Parking Brake Systems. Review subsection 5.1.*

31. B — Brake pad/rotor surface compatibility issues, surface deposits, or pad chamfer wear affecting low-pressure brake operation. Pressure-specific noise during light braking is the diagnostic signature of low-pressure friction characteristics. Compatibility, deposits, or chamfer wear each affect this specific condition. *ASE Task Reference: A5 Domain C — Disc Brake Diagnosis and Repair. Review subsection 5.3.*

32. C — Verify the conditions producing noise, inspect pad and rotor surfaces, identify compatibility or surface issues, and address accordingly. Pressure-specific brake noise diagnosis requires comprehensive evaluation. Each finding reveals different aspects of the cause. *ASE Task Reference: A5 Domain C — Disc Brake Diagnosis and Repair. Review subsection 5.3.*

33. A — A failed parking brake actuator, EPB module fault, mechanical bind in the system, or fault in the actuator wiring. Parking brake release failure indicates the system cannot execute the release command. Actuator failure, module fault, mechanical bind, or wiring fault each produce the symptom. *ASE Task Reference: A5 Domain A — Hydraulic, Power Assist, and Parking Brake Systems. Review subsection 5.1.*

34. C — Verify the customer concern, retrieve stored DTCs, monitor scan data for actuator commands, and verify proper component operation. Electronic parking brake diagnosis requires comprehensive systematic approach including scan tool integration. Each step provides different diagnostic information. *ASE Task Reference: A5 Domain A — Hydraulic, Power Assist, and Parking Brake Systems. Review subsection 5.1.*

35. B — Recommend a complete brake fluid flush, since brake fluid degrades over time and absorbs moisture. Brake fluid 4 years old is approaching or beyond typical service intervals. Degradation and moisture absorption affect performance; service is appropriate. *ASE Task Reference: A5 Domain F — Brake Tools, Fluids, and Service Specifications. Review subsection 5.6.*

36. D — Test fluid moisture content, verify fluid condition, recommend service based on the manufacturer's interval and the test results. Brake fluid service recommendations should be based on testing and the manufacturer's interval. Combining both provides the most accurate service recommendation. *ASE Task Reference: A5 Domain F — Brake Tools, Fluids, and Service Specifications. Review subsection 5.6.*

37. A — A failed master cylinder internal seal, failed caliper internal seal, or failed wheel cylinder internal seal causing fluid loss without external visibility. Internal hydraulic leaks lose fluid without external visibility because the fluid stays within the system. Each component can fail internally. *ASE Task Reference: A5 Domain A — Hydraulic, Power Assist, and Parking Brake Systems. Review subsection 5.1.*

38. B — Verify fluid level loss, inspect each component for visible leaks, perform bench tests on suspect components, and identify the failed component. Internal leak diagnosis requires verification, external inspection, bench testing, and identification. Each step isolates different components. *ASE Task Reference: A5 Domain A — Hydraulic, Power Assist, and Parking Brake Systems. Review subsection 5.1.*

39. C — Replace pads and rotors (since pad metal contact damages rotors), inspect calipers and brake hardware, and verify no other damage occurred. Severely worn pads damage rotors during metal-to-metal contact. Replacement of both, plus comprehensive inspection, is required. *ASE Task Reference: A5 Domain C — Disc Brake Diagnosis and Repair. Review subsection 5.3.*

40. A — Inspect rotors for damage, inspect calipers for piston damage, inspect brake hardware, and identify the full extent of repair required. Severely worn pads cause cascading damage. Comprehensive inspection identifies all affected components for proper repair planning. *ASE Task Reference: A5 Domain C — Disc Brake Diagnosis and Repair. Review subsection 5.3.*

41. B — The pedal pulse is normal ABS operation modulating brake pressure to prevent wheel lockup. ABS pedal pulse during activation is normal as the system rapidly modulates brake pressure. The pulse is the system performing its intended function. *ASE Task Reference: A5 Domain E — Electronic Brake, Traction, and Stability Control Systems. Review subsection 5.5.*

42. D — Inform the customer that ABS pedal pulse during activation is normal as the system modulates brake pressure to prevent wheel lockup. Customer education is appropriate when ABS operation is normal. The customer needs to understand normal patterns. *ASE Task Reference: A5 Domain E — Electronic Brake, Traction, and Stability Control Systems. Review subsection 5.5.*

43. C — A failed inclinometer, fault in the brake control module's hill-start program, or fault in the integration with stability control. Hill-start assist depends on inclinometer input and brake control module program. Each component must function for proper operation. *ASE Task Reference: A5 Domain E — Electronic Brake, Traction, and Stability Control Systems. Review subsection 5.5.*

44. A — Hold brake pressure briefly when starting on an incline, preventing the vehicle from rolling backward as the driver transitions from brake to throttle. Hill-start assist holds brake pressure during the transition from brake to throttle on inclines, preventing rollback during the brief moment when neither pedal is being pressed firmly. *ASE Task Reference: A5 Domain E — Electronic Brake, Traction, and Stability Control Systems. Review subsection 5.5.*

45. B — Park on an incline, verify proper brake holding during transition from brake to throttle, and verify the system releases as the vehicle accelerates. Hill-start verification requires graded surface testing and observation of the holding-to-release transition. The system must function reliably during the specific operational condition. *ASE Task Reference: A5 Domain E — Electronic Brake, Traction, and Stability Control Systems. Review subsection 5.5.*