PRACTICE EXAM 17: ASE L4 SIMULATION (50 QUESTIONS)

1. A dashboard displays a yellow "ADAS" warning indicator along with the text "Service Required." The most accurate interpretation is:

A. A fault exists in an ADAS system warranting diagnostic investigation

B. The vehicle requires routine service unrelated to ADAS functions

C. A software update is available for the infotainment system only

D. Normal operation that should not concern the driver or technician

3. A scan tool displays the message "Module Offline — Communication Timeout." The most accurate interpretation is:

2. A scan tool displays "Forward Camera: Temporarily Unavailable — System Unable to Detect Lane Markings." The most accurate interpretation is:

A. The forward camera has failed internally and requires immediate replacement

B. The camera cannot detect lane markings due to road, weather, or view conditions

C. The ADAS Central Module has failed and requires complete reprogramming now

D. Normal operation that the customer should not consider significant or report

3. A scan tool displays the message "Module Offline — Communication Timeout." The most accurate interpretation is:

A. Normal operation during any all-systems scan on the vehicle at any time

B. The module has failed internally and requires replacement with a new unit

C. The scan tool's software requires an immediate update before any further use

D. The module is not responding within the expected timeframe, warranting investigation

4. An instrument cluster displays "Lane Keep Unavailable — Clean Windshield" to the driver. The most accurate interpretation is:

A. The vehicle requires general detailing service at a professional auto detailer

B. Normal operation that customers should ignore as a routine notification

C. The forward camera view is obstructed, and cleaning the camera area may restore function

D. Complete windshield replacement is required immediately for the message to resolve

5. A scan tool reports "Calibration Failed — Target Not Detected" during a static camera calibration. The most productive investigation considers:

A. Replacing the forward camera immediately with a new OEM unit

B. Target placement, target orientation, and any obstructions in the camera view

C. Reprogramming the ADAS Central Module with the current firmware release available

D. Normal operation that occurs during most camera calibration procedures on the vehicle

6. A dashboard displays "Adaptive Cruise: Radar Blocked." The most likely cause is:

A. Complete forward radar failure requiring immediate replacement with a new unit

B. Normal operation that the customer should accept as a feature limitation always

C. Contamination, ice, snow, or obstruction covering the forward radar area

D. The ADAS Central Module requires complete reprogramming with current firmware

7. A scan tool reports "Battery Voltage Below Threshold — Calibration Inhibited." The correct response is:

A. Connecting a battery support unit to raise voltage before retrying the procedure

B. Ignoring the message and proceeding with calibration at the current voltage

C. Performing dynamic calibration instead since static calibration cannot proceed now

D. Replacing the battery with a new unit before any further diagnostic work begins

8. A scan tool displays "Programming Aborted — Connection Lost." The most productive action is:

A. Clearing all codes and delivering the vehicle without completing the programming

B. Replacing the module that was being programmed since programming failed to complete

C. Following OEM recovery procedure for the interrupted programming session carefully

D. Reprogramming every other module on the vehicle as a general precaution now

9. A scan tool reports "Security Access Denied — Invalid Key." The most accurate response is:

A. Replacing the module that requires security access with a new one from inventory

B. Ignoring the security access requirement and proceeding with other work on the vehicle

C. Reprogramming the module to remove the security access requirement going forward

D. Consulting OEM service information for the correct security access procedure

10. A scan tool displays "Coding Required — Vehicle Configuration Mismatch." The most productive response is:

A. Performing the OEM-specified coding procedure to match the vehicle's configuration

B. Replacing the module that shows the coding mismatch message with a new unit now

C. Ignoring the mismatch message since the module is reporting communication properly

D. Clearing all codes and delivering the vehicle despite the coding mismatch alert

11. A scan tool reports "Calibration Required — Trigger Event: Windshield Replacement." The most accurate interpretation is:

A. The message is a scan tool software error that can be safely cleared by the user

B. Windshield service has occurred and forward camera calibration must be performed

C. Normal operation that should not require any action from the technician now

D. The scan tool is incorrectly reporting because no windshield service has been done

12. An instrument cluster displays "Automatic Emergency Braking: Reduced Function." The most accurate interpretation is:

A. The entire AEB system has failed and requires immediate replacement with new units

B. Normal operation that should not concern the driver under any circumstances

C. The ADAS Central Module requires reprogramming with the most current firmware

D. AEB is operating in a degraded state — investigation of camera and radar is warranted

13. A scan tool reports "Precondition Error: Vehicle Load Incorrect." The correct response is:

A. Proceeding with the calibration despite the load-related precondition message shown

B. Adjusting vehicle loading per OEM specification before retrying the calibration

C. Ignoring the message since vehicle load does not affect calibration accuracy now

D. Replacing the module being calibrated as a precaution against the load error now

14. A scan tool displays "Forward Camera: Calibration Complete — Dynamic Drive Required." The most productive next action is:

A. Delivering the vehicle to the customer since calibration has completed on the scan tool

B. Performing another static calibration cycle to verify the first calibration was valid

C. Performing the required dynamic calibration drive per the OEM service procedure

D. Clearing all codes and considering the calibration workflow complete now

15. A dashboard displays "Blind Spot Monitor: Check Rear Sensors." The most likely cause is:

A. Complete corner radar failure requiring replacement of every corner radar module

B. Contamination, ice, debris, or damage affecting the rear corner radar detection zone

C. Normal operation that the customer should accept as a feature limitation always

D. The ADAS Central Module requires complete reprogramming with current firmware

16. A scan tool reports "DTC P1234-00 — Sensor Circuit Range/Performance." The P-code category indicates:

A. A body control fault unrelated to ADAS or powertrain systems on the vehicle

B. A chassis fault related to brakes, suspension, or steering components always

C. A network communication fault between modules on the vehicle in operation

D. A powertrain fault related to engine or transmission performance or controls

17. A scan tool displays "Initialization Incomplete — Ignition Cycle Required." The most productive action is:

A. Proceeding to calibration despite the initialization incomplete status on the scan

B. Performing the OEM-specified ignition cycling sequence to complete initialization

C. Replacing the module that shows initialization incomplete with a new OEM unit

D. Clearing all codes and considering the workflow complete despite the message

18. An instrument cluster displays "Lane Departure Warning: Unavailable" with no further explanation text. The most productive response considers:

A. Running a scan tool to get more detailed information about the unavailability status

B. Ignoring the message since vehicles commonly display brief warning text phrases

C. Charging the customer for an unavailability service without further investigation now

D. Delivering the vehicle without investigating since the message is not specific enough

19. A scan tool reports "Module Not Registered with OEM Portal." The most accurate interpretation is:

A. The module has failed internally and requires replacement with a new unit now

B. Normal operation that does not require any technician action during service

C. A replacement module needs registration with the OEM portal before it will function

D. The scan tool has malfunctioned and requires an immediate factory reset procedure

20. A scan tool displays "Firmware Up to Date — No Action Required" for an ADAS module. The most accurate interpretation is:

A. The module's firmware matches the current OEM release and no update is available

B. The module has failed and requires replacement despite showing up to date status

C. Normal operation that should be ignored since firmware information is not relevant

D. The scan tool has malfunctioned and is providing false firmware status information

21. A dashboard warning displays "Driver Monitoring: Face Not Detected." The most likely cause is:

A. Complete failure of the driver monitoring camera requiring immediate replacement

B. Normal operation that occurs randomly without any identifiable cause on any vehicle

C. Complete failure of the ADAS Central Module requiring immediate replacement work

D. Camera view obstruction, driver position, or eyewear interfering with the detection

22. A scan tool reports "Bus Error Counter: Incrementing." The most accurate interpretation is:

A. Normal CAN bus operation during any scan tool session on the vehicle during testing

B. The scan tool software has an error that requires a factory reset before continuing

C. Communication errors are occurring on the bus warranting waveform investigation soon

D. Every module on the bus has failed simultaneously and requires replacement now

23. A dashboard displays "Automatic High Beam: Disabled by Vehicle." The most accurate interpretation is:

A. The vehicle owner has disabled HBA through the customer settings menu system

B. HBA has been temporarily disabled due to conditions the system cannot operate in

C. Complete HBA system failure requiring immediate replacement of the forward camera

D. Normal operation that the customer should accept without any further investigation

24. A scan tool reports "Calibration Timeout — Learning Not Completed." The most productive investigation is:

A. Replacing the forward camera module since the calibration has failed to complete on time

B. Reprogramming the ADAS Central Module with the current firmware release immediately

C. Normal operation that occurs during any calibration session and does not warrant action

D. Driving conditions during the dynamic calibration — speed, markings, weather, duration

25. A scan tool displays "Warning: This operation will clear learned values." Before proceeding, the correct action is:

A. Verifying that any relearn procedures are documented for post-operation execution

B. Proceeding immediately since learned values automatically regenerate after clearing

C. Clicking cancel since no operation on the vehicle should ever clear learned values

D. Ignoring the warning since the scan tool displays excessive warnings for most actions

26. An instrument cluster displays "ADAS: Functions Restricted — Low Voltage." The most likely cause is:

A. Normal operation that should not warrant any investigation or action from technician

B. Complete failure of every ADAS module requiring replacement of the entire system

C. Battery or charging system condition causing voltage below the ADAS threshold level

D. The ADAS Central Module has failed and requires immediate replacement with new unit

27. A scan tool reports "Post-Repair Scan: 2 New Codes Detected Since Pre-Repair Scan." The correct response is:

A. Delivering the vehicle since the original complaint has been resolved by the service

B. Clearing the new codes and delivering the vehicle without further investigation now

C. Replacing the modules that report the new codes as a general precaution step

D. Investigating the new codes to determine whether the repair introduced the faults

28. A dashboard displays "Surround View Unavailable — Rear Camera." The most productive investigation considers:

A. Complete replacement of the Surround View Module with a new OEM unit immediately

B. Physical inspection of the rear camera for damage, contamination, or disconnection

C. Reprogramming the ADAS Central Module with the current firmware release available

D. Normal operation during any reverse gear engagement that customers should ignore

29. A scan tool displays "VIN Mismatch Detected — Module VIN Different from Vehicle VIN." The most productive response is:

A. Ignoring the mismatch since it does not affect ADAS operation on the vehicle

B. Clearing all codes and delivering the vehicle despite the VIN mismatch warning

C. Investigating the mismatch since the module may be from a different vehicle entirely

D. Replacing the module with the mismatched VIN immediately with a new correct unit

30. A scan tool reports "Dynamic Calibration: 67% Complete — Continue Driving." The most accurate interpretation is:

A. The calibration has failed and requires restart from the beginning of the procedure

B. Calibration is progressing normally and more driving is needed for completion

C. Normal operation that occurs without any action required from the technician now

D. The scan tool has malfunctioned and requires immediate factory reset before use

31. A dashboard displays "Forward Collision Warning: Limited Visibility." The most likely cause is:

A. Reduced visibility conditions — fog, heavy rain, snow — affecting sensor operation

B. Complete FCW system failure requiring replacement of every system component

C. The Electronic Brake Control Module requires reprogramming with current firmware

D. Normal operation that the customer should not notice during any driving session

32. A scan tool reports "Radar Misalignment Detected: 2.3 degrees off-axis." The most productive response is:

A. Ignoring the misalignment value since 2.3 degrees is within acceptable tolerance

B. Clearing the code and delivering the vehicle despite the misalignment warning now

C. Replacing the radar module immediately with a new unit from the parts inventory

D. Recalibrating the radar to correct the misalignment documented in the code now

33. A dashboard displays "Adaptive Cruise: Driver Override Active." The most accurate interpretation is:

A. The driver has depressed the brake or accelerator, temporarily overriding ACC

B. Complete ACC system failure requiring replacement of every ACC component soon

C. Normal operation that should never occur on any ADAS-equipped vehicle at all

D. The Electronic Brake Control Module has failed and requires immediate replacement

34. A scan tool reports "Forward Radar: Temperature Sensor Out of Range." The most productive investigation considers:

A. Normal operation that occurs at any temperature condition without any specific cause

B. Complete radar module replacement as the only response to any temperature sensor issue

C. Reprogramming the ADAS Central Module with current firmware to reset temperature sensor

D. Thermal conditions affecting the module — investigate cooling, mounting, and ambient

35. A dashboard displays "Blind Spot Warning: Left Side Unavailable." The most likely cause is:

A. Normal operation that occurs randomly and should not warrant any investigation today

B. Contamination, damage, or connection issue affecting the left rear corner radar area

C. Complete failure of every corner radar on the vehicle requiring full system replacement

D. The ADAS Central Module requires complete reprogramming with current firmware release

36. A scan tool reports "Calibration Success — Value Written to Module Memory." The most productive next action is:

A. Post-repair scan and operational road test verification before customer delivery today

B. Delivering the vehicle immediately without any further verification activities required

C. Performing a second static calibration cycle immediately to verify the first calibration

D. Clearing all codes and considering the workflow complete without road testing the system

37. A dashboard displays "AEB: System Fault — Contact Service." The most accurate interpretation is:

A. Normal operation that customers should ignore despite the "Contact Service" message

B. The scan tool has an error that requires resolution before any driving occurs again

C. A fault in the AEB system warranting diagnostic investigation before normal driving

D. Complete failure of every ADAS component requiring total system replacement immediately

38. A scan tool reports "Precondition Check: Floor Slope 1.8 degrees (Max: 1.0 degrees)." The correct response is:

A. Moving the vehicle to a level surface or correcting the floor before calibrating

B. Proceeding with the calibration since 1.8 degrees is close to the 1.0 degree limit

C. Clearing the precondition error and retrying the calibration without any corrections

D. Replacing the radar module with a new unit to bypass the floor slope precondition

39. A dashboard displays "Lane Keep Assist: Hands on Wheel Required." The most accurate interpretation is:

A. Complete failure of the LKA system requiring replacement of every LKA component

B. Normal operation that should be ignored as it provides no useful driver information

C. The system detects insufficient steering input from the driver, requesting hand contact

D. The Electronic Power Steering Module requires immediate replacement with a new unit

40. A scan tool reports "Firmware Version Mismatch: Module 3.1, Vehicle Configuration Expects 3.4." The most productive response is:

A. Replacing the module with a new one that has the correct firmware version installed

B. Reviewing the applicable TSB to determine whether an update is required for the vehicle

C. Ignoring the mismatch since firmware versions do not affect ADAS operation at all

D. Clearing all codes and delivering the vehicle despite the firmware mismatch warning

41. A scan tool displays "Target Detection Status: Normal — 3 Targets Tracked." The most accurate interpretation is:

A. Normal operation that should not be considered any meaningful diagnostic information

B. The radar has failed and is reporting false target data during this specific test

C. The scan tool has malfunctioned and requires immediate factory reset for normal operation

D. The radar is functioning and currently tracking 3 targets in its field of view

42. A dashboard displays "Automatic Emergency Braking: Inactive During Reverse." The most accurate interpretation is:

A. Complete AEB system failure requiring replacement of every AEB system component now

B. Normal operation — AEB is typically inactive during reverse gear engagement by design

C. The Electronic Brake Control Module requires complete reprogramming with new firmware

D. Normal operation that requires immediate investigation by a qualified technician soon

43. A scan tool reports "Forward Radar: Beam Angle Deviation Detected." The most productive response is:

A. Recalibration of the forward radar per OEM procedure to correct the beam angle

B. Immediate replacement of the forward radar with a new unit from the parts inventory

C. Reprogramming the ADAS Central Module to adjust for the beam angle deviation now

D. Normal operation that occurs without any action required from the technician ever

44. A dashboard displays "ACC Temporarily Unavailable — Try Again Later." The most likely cause is:

A. Complete ACC system failure requiring replacement of every ACC component immediately

B. The Electronic Brake Control Module has failed and requires immediate replacement now

C. Temporary environmental or operational condition preventing ACC from activating now

D. Normal operation that should not occur under any driving condition or situation ever

45. A scan tool reports "Test Aborted — User Cancellation Required." The most accurate interpretation is:

A. The scan tool is waiting for the technician to confirm cancellation of the test

B. Complete test failure requiring replacement of the affected module with new unit

C. Normal operation during any bidirectional test session on the vehicle during service

D. The scan tool has malfunctioned and requires immediate factory reset before continuing

46. A dashboard displays "Parking Assist: Sensors Blocked." The most likely cause is:

A. Complete ultrasonic system failure requiring replacement of every ultrasonic sensor

B. Normal operation during any parking attempt that customers should always ignore

C. The Ultrasonic Control Module has failed and requires immediate replacement with new unit

D. Contamination, ice, snow, or mud covering the ultrasonic sensor transducer faces

47. A scan tool reports "Ultrasonic Sensor: Echo Pattern Abnormal." The most productive investigation considers:

A. Complete replacement of the Ultrasonic Control Module with a new OEM unit immediately

B. Physical inspection of the specific sensor, its mounting, and its transducer face condition

C. Reprogramming the ADAS Central Module with current firmware to correct the echo pattern

D. Normal operation that occurs during any scan tool session on ADAS-equipped vehicles

48. A dashboard displays "Rear Cross-Traffic Alert: Limited Range." The most likely cause is:

A. Complete rear corner radar failure requiring replacement of every RCTA component now

B. Normal operation that customers should not concern themselves with under any conditions

C. The ADAS Central Module requires complete reprogramming with the current firmware

D. Contamination or obstruction in the rear bumper area affecting the corner radar detection

49. A scan tool reports "Parking Sensor Self-Test: 7 of 8 Sensors Passed." The most productive action considers:

A. Investigating the one sensor that failed the self-test — supply, ground, or sensor itself

B. Replacing every sensor on the vehicle as a precaution against further failures soon

C. Reprogramming the Ultrasonic Control Module with the current firmware release soon

D. Clearing all codes and delivering the vehicle since 7 of 8 sensors are operational

50. A dashboard displays "Parking Assist: System Fault." The most accurate interpretation is:

A. Normal operation that should not warrant any investigation from the technician ever

B. The scan tool has malfunctioned and requires immediate factory reset before use

C. A parking assist fault warranting diagnostic investigation with the scan tool soon

D. Complete replacement of the Ultrasonic Control Module without any further diagnosis

PRACTICE EXAM 17: ANSWER KEY AND EXPLANATIONS

1. A — A yellow ADAS warning with "Service Required" text indicates that a fault exists in an ADAS system that warrants diagnostic investigation. This is an explicit call to action from the vehicle, distinct from routine service reminders, software notifications, or normal status indicators, and it should be addressed through scan tool diagnosis.

2. B — "Forward Camera: Temporarily Unavailable — System Unable to Detect Lane Markings" indicates the camera cannot see lane markings due to road conditions (faint paint), weather (rain, fog, snow), or camera view issues (contamination). This is a conditional status, not a camera failure, and it resolves when conditions improve or the camera's view is restored.

3. D — "Module Offline — Communication Timeout" means the module is not responding within the expected timeframe during scan tool queries. This warrants investigation of the module's power supply, ground connections, and CAN communication pathway — it is not normal operation, not a scan tool software issue, and not conclusive evidence of module failure.

4. C — "Lane Keep Unavailable — Clean Windshield" specifically tells the driver that the forward camera view is obstructed. Cleaning the windshield in the camera's viewing area typically restores function. This is a helpful guided message, not a vague alert, and neither requires general detailing nor windshield replacement.

5. B — "Calibration Failed — Target Not Detected" warrants investigation of target placement, orientation, and any obstructions in the camera's view. The camera is looking for a specific target at a specific position, and any deviation in placement or visibility will produce this error — not module failure or scan tool reprogramming.

6. C — "Adaptive Cruise: Radar Blocked" most commonly indicates contamination, ice, snow, or an obstruction covering the forward radar area. The radar itself is likely functioning — its signal path is physically blocked. Clearing the obstruction typically restores operation without any module replacement or reprogramming.

7. A — "Battery Voltage Below Threshold — Calibration Inhibited" is the scan tool correctly refusing to perform a calibration that cannot produce valid results. Connecting a battery support unit to raise voltage above the minimum threshold allows the procedure to proceed correctly. Ignoring the message produces silent miscalibration.

8. C — "Programming Aborted — Connection Lost" requires following the OEM recovery procedure for the interrupted programming session. The OEM service portal typically provides a specific

recovery sequence, and this is always the correct path rather than module replacement or abandoning the session.

9. D — "Security Access Denied — Invalid Key" means the module requires authentication that has not been correctly provided. Consulting OEM service information for the correct security access procedure is the productive response — modern ADAS modules use security access to prevent unauthorized reflashing.

10. A — "Coding Required — Vehicle Configuration Mismatch" means the module has not been configured for the specific vehicle. Performing the OEM-specified coding procedure to match the vehicle's configuration is the correct response — the module may be new or have default values that need to be configured to the specific vehicle.

11. B — "Calibration Required — Trigger Event: Windshield Replacement" accurately identifies that windshield service has occurred and forward camera calibration is now required. This is a specific, actionable message — windshield service is a documented trigger for camera calibration per OEM position statements.

12. D — "Automatic Emergency Braking: Reduced Function" indicates AEB is operating in a degraded state. Investigation of the camera and radar (the primary AEB inputs) is warranted to identify what is causing the reduced function — this is not normal operation, not a full system failure, and not a reprogramming issue.

13. B — "Precondition Error: Vehicle Load Incorrect" requires adjusting vehicle loading per OEM specification before retrying. Vehicle loading affects ride height, which affects sensor geometry, and OEM calibration procedures specify an unloaded or specific-load vehicle state for accurate calibration results.

14. C — After successful static calibration, "Dynamic Drive Required" means the OEM procedure requires the additional dynamic calibration step. Performing this step per OEM procedure is the correct next action — skipping it leaves the calibration incomplete, regardless of whether the scan tool reports the static portion as successful.

15. B — "Blind Spot Monitor: Check Rear Sensors" typically points to contamination, ice, debris, or damage affecting the rear corner radar detection zone. Physical inspection of the radar areas is the productive first step — module replacement or reprogramming are premature responses to a message specifically calling for sensor inspection.

16. D — P-codes in the OBD-II DTC format relate to powertrain faults including engine and transmission controls. Understanding DTC prefix conventions — P (powertrain), B (body), C (chassis), U (network) — allows rapid diagnostic category identification and focuses the investigation appropriately.

17. B — "Initialization Incomplete — Ignition Cycle Required" requires performing the OEM-specified ignition cycling sequence to complete initialization. This is a scan tool-directed next step

in the module replacement workflow, not a reason for module replacement, skipping to calibration, or clearing the status without action.

18. A — A cluster message with limited information warrants running a scan tool to get more detailed information about the unavailability status. The scan tool typically provides specific DTCs, freeze frame data, or detailed status messages that the instrument cluster's brief text cannot convey alone.

19. C — "Module Not Registered with OEM Portal" on a replacement module means registration with the OEM portal is required before the module will function. This is a modern OEM security feature that ties replacement modules to specific vehicles, preventing unauthorized parts or fraudulent installations.

20. A — "Firmware Up to Date — No Action Required" simply confirms the module's firmware matches the current OEM release. This is a clear, accurate status message indicating no update is available or needed — it is not a scan tool malfunction, not a hardware failure warning, and not to be ignored.

21. D — "Driver Monitoring: Face Not Detected" typically results from camera view obstruction, driver position issues, or eyewear interfering with the driver monitoring camera's infrared imaging. Investigation of these factors is productive before considering module replacement, which is rarely the cause of face detection issues.

22. C — "Bus Error Counter: Incrementing" indicates active communication errors are occurring on the CAN bus, warranting investigation with an oscilloscope to observe the waveform quality. This is not normal operation, not a scan tool malfunction, and not evidence of widespread module failure — it is early warning of specific bus issues.

23. B — "Automatic High Beam: Disabled by Vehicle" typically indicates HBA has been temporarily disabled due to conditions the system cannot operate in — ambient brightness, camera visibility issues, or detected conflicting lighting. This is system protective behavior, not a driver setting or complete system failure.

24. D — A dynamic calibration timeout typically traces back to driving conditions during the calibration — speed range violations, insufficient lane markings, weather, or inadequate duration. Investigation of these factors is productive before speculative module replacement or unrelated reprogramming procedures.

25. A — "This operation will clear learned values" warrants verifying that any relearn procedures are documented for post-operation execution. Clearing learned values intentionally may require subsequent relearn procedures to restore correct operation — acknowledging this risk before proceeding is appropriate caution.

26. C — "ADAS: Functions Restricted — Low Voltage" indicates battery or charging system condition causing voltage below the ADAS operational threshold. This is the ADAS system correctly

responding to inadequate electrical conditions by disabling itself protectively — the electrical system is the root cause, not the ADAS modules.

27. D — Two new codes appearing in the post-repair scan that were not present in the pre-repair scan require investigation to determine whether the repair introduced the faults. This is critical for repair verification and quality assurance — clearing the codes or delivering without investigation may leave real problems masked.

28. B — "Surround View Unavailable — Rear Camera" specifically calls out the rear camera. Physical inspection of the rear camera for damage, contamination, or disconnection is the productive starting point — the message identifies the specific component to investigate rather than warranting full system replacement.

29. C — "VIN Mismatch Detected" warrants investigation because the module may be from a different vehicle entirely. This is a critical finding that affects whether the module's programming, coding, and calibration will function correctly on the current vehicle, and ignoring it creates significant liability and operational risk.

30. B — "Dynamic Calibration: 67% Complete — Continue Driving" means the calibration is progressing normally and requires more driving to complete. This is status information during an ongoing procedure, not a failure, not normal operation to ignore, and not a scan tool malfunction — it directs the technician to continue the drive.

31. A — "Forward Collision Warning: Limited Visibility" indicates reduced visibility conditions (fog, heavy rain, snow) are affecting sensor operation. This is a conditional, environment-driven message, not a full FCW failure, not an EBCM reprogramming need, and not something to ignore — conditions affect the system's operational capability.

32. D — "Radar Misalignment Detected: 2.3 degrees off-axis" is specific, actionable information identifying a calibration issue. Recalibrating the radar to correct the misalignment is the productive response — 2.3 degrees is outside typical tolerance, and the code specifically indicates the corrective action needed.

33. A — "Adaptive Cruise: Driver Override Active" is a status message indicating the driver has depressed the brake or accelerator, temporarily overriding ACC. This is normal and intentional operation — the system is correctly deferring to driver input as designed, not failing or requiring module replacement.

34. D — "Forward Radar: Temperature Sensor Out of Range" indicates thermal conditions are affecting the module. Investigation of cooling, mounting location, and ambient conditions is productive before assuming module failure — thermal issues often have addressable causes that don't require parts replacement.

35. B — "Blind Spot Warning: Left Side Unavailable" typically traces to contamination, damage, or a connection issue affecting the left rear corner radar specifically. The localized nature of the

message points to localized diagnosis rather than wholesale system replacement or unrelated reprogramming.

36. A — After "Calibration Success" is reported, post-repair scan and operational road test verification before customer delivery is the correct next action. Scan verification confirms no new codes appeared; road testing confirms real-world feature function. Both are required for complete professional ADAS service verification.

37. C — "AEB: System Fault — Contact Service" specifically identifies a fault warranting diagnostic investigation before normal driving resumes. This is an explicit call for service, not to be ignored — the "Contact Service" text indicates that driving with the fault present may affect safety-critical system function.

38. A — A floor slope of 1.8 degrees when the maximum allowed is 1.0 degrees requires moving the vehicle to a level surface or correcting the floor before calibrating. Proceeding violates the precondition and produces silent miscalibration — "close to the limit" is still outside the limit and creates risk.

39. C — "Lane Keep Assist: Hands on Wheel Required" indicates the system detects insufficient steering input from the driver and is requesting hand contact. This is a driver-engagement monitoring feature working correctly — not a failure, not a useless message, and not an EPS replacement trigger.

40. B — A firmware version mismatch should be addressed by reviewing the applicable TSB to determine whether an update is required. Not every firmware mismatch requires action, and TSB review identifies whether the mismatch is affecting the specific vehicle or complaint before installing an update.

41. A — "Target Detection Status: Normal — 3 Targets Tracked" indicates the radar is functioning and currently tracking 3 targets in its field of view. This is positive confirmation of correct radar operation and provides useful diagnostic information about what the radar is currently seeing — not malfunction or meaningless information.

42. B — "Automatic Emergency Braking: Inactive During Reverse" is normal operation — AEB is typically designed to be inactive during reverse gear engagement, since its role is forward collision prevention. This is correct system behavior being communicated to the driver, not a failure or reprogramming need.

43. A — "Forward Radar: Beam Angle Deviation Detected" warrants recalibration of the forward radar per OEM procedure to correct the beam angle. This specific finding is directly addressable through recalibration — module replacement is premature, and reprogramming addresses software rather than the geometric reference issue.

44. C — "ACC Temporarily Unavailable — Try Again Later" typically indicates a temporary environmental or operational condition preventing ACC from activating. This is protective system

behavior responding to conditions outside ACC's operational parameters, not a complete system failure or permanent unavailability.

45. A — "Test Aborted — User Cancellation Required" means the scan tool is waiting for the technician to confirm cancellation of the test. This is a user-interface message requiring operator action, not a test failure requiring module replacement, not normal operation, and not a scan tool malfunction.

46. D — "Parking Assist: Sensors Blocked" most commonly traces to contamination, ice, snow, or mud covering the ultrasonic sensor transducer faces. Physical cleaning of the sensor faces typically restores operation without any module replacement or system-wide intervention.

47. B — "Ultrasonic Sensor: Echo Pattern Abnormal" warrants physical inspection of the specific sensor, its mounting, and its transducer face condition. The targeted message points to investigation of that specific sensor rather than wholesale module replacement or reprogramming of unrelated systems.

48. D — "Rear Cross-Traffic Alert: Limited Range" typically indicates contamination or obstruction in the rear bumper area affecting the corner radar detection. This environmental cause is common and addressable through cleaning or obstruction removal, not requiring system replacement or reprogramming.

49. A — When 7 of 8 sensors pass the self-test and one fails, investigating the failed sensor (supply, ground, or the sensor itself) is the productive action. This targeted approach addresses the specific failed component rather than speculative wholesale replacement or reprogramming that does not address the identified fault.

50. C — "Parking Assist: System Fault" warrants diagnostic investigation with a scan tool to identify the specific cause. The generic message indicates a fault exists but not what it is — scan tool diagnosis reveals the specific DTC and directs targeted investigation rather than speculative replacement or ignoring the message.