PRACTICE EXAM 17

1. A vehicle arrives with a forward-collision complaint. The technician has verified the complaint and researched the service history. What is the best next step?

A. Perform a pre-repair scan to document existing fault codes

B. Immediately begin a forward radar static calibration

C. Replace the forward radar module

D. Release the vehicle as operating normally

2. A technician has completed the pre-repair scan and found lost-communication codes across several modules. What is the most appropriate next action?

A. Map which modules report losing which, to identify a shared cause

B. Replace the forward-facing camera

C. Clear all codes and road test

D. Begin a dynamic calibration

3. Before placing static calibration targets, a technician confirms the manufacturer procedure and performs a pre-repair scan. The vehicle has an aftermarket lift. What must happen next?

A. Position the targets at the specified distance

B. Restore correct ride height before proceeding

C. Initiate the calibration on the scan tool

D. Road test the vehicle

4. A technician suspects a high-resistance ground on an ADAS module. The key is on and the circuit can be loaded. What is the correct next step?

A. Perform a voltage-drop test across the ground under load

B. Measure resistance with the circuit de-energized

C. Replace the module

D. Recalibrate the camera

5. A forward camera was just reinstalled on a correctly replaced windshield. The glass is correct and the bracket is aligned. What remains to be done before release?

A. Replace the camera module

B. Reprogram the gateway

C. Perform the required camera calibration and verify function

D. Bleed the brakes

6. A radar reports a blocked condition after off-road driving. The technician has confirmed the complaint. What is the best next step?

A. Replace the radar module

B. Perform a dynamic calibration

C. Reprogram the gateway

D. Inspect and clear the fascia in front of the radar

7. A technician has cleared mud from a radar's fascia and the blocked condition resolved. What is the appropriate next action before returning the vehicle?

A. Replace the radar as a precaution

B. Perform a four-wheel alignment

C. Verify the radar feature now functions correctly

D. Reprogram the gateway module

8. A new corner radar has been mounted correctly and configured to the vehicle. Blind spot detection still misbehaves. What is the best next step?

A. Perform the required aiming/calibration for the new radar

B. Replace the radar again

C. Replace the windshield

D. Bleed the brakes

9. A technician begins a dynamic calibration that will not complete on an unmarked rural road. What is the best next step?

A. Replace the forward camera

B. Reprogram the gateway

C. Relocate to a road with clear lane markings meeting the procedure conditions

D. Perform a static calibration without checking the procedure

10. A static calibration keeps aborting in a cluttered, reflective bay area. The targets and prerequisites are correct. What should the technician do next?

A. Replace the camera

B. Increase the supply voltage

C. Relocate to a bay meeting the clean-background and lighting requirements

D. Perform a dynamic calibration instead

11. A technician has documented all fault codes and identified that several modules on one bus segment are offline while others respond. What is the best next step?

A. Replace each offline module individually

B. Check the shared bus segment, its connectors, and its gateway connection

C. Recalibrate the forward camera

D. Release the vehicle

12. A forward radar is unresponsive and reads zero volts at its supply pin with the key on. What is the correct next step?

A. Recalibrate the radar

B. Replace the radar module

C. Perform a dynamic calibration

D. Trace upstream to the fuse and power feed

13. A technician has corrected a wiring fault and recalibrated a camera, and a post-repair scan is clean. For this safety-critical feature, what is the best next step?

A. Perform functional verification, including a road test where needed

B. Release the vehicle on the clean scan alone

C. Repeat only the pre-repair scan

D. Reprogram the gateway

14. A vehicle's multiple forward features fail together. The camera communicates, the glass is clear, and the bracket and ride height are correct. What is the best next step?

A. Determine whether the shared camera needs recalibration or a software update

B. Replace the rear ultrasonic sensors

C. Replace the key fob battery

D. Check the tire pressure sensors

15. A technician is about to test a park-assist system that can steer the vehicle. What must be done first?

A. Disconnect the gateway

B. Remove the rear bumper

C. Fully charge the battery

D. Ensure the area around and inside the vehicle is clear

16. A composite-vehicle question asks at what speed a feature activates, and the value differs from a real vehicle the technician knows. What is the correct next step?

A. Answer from the real vehicle's behavior

B. Average the two values

C. Skip the question

D. Use the value defined in the reference

17. A technician finds a forward camera bracket is the wrong part number, shifting the camera's aim. The camera and glass are otherwise fine. What is the best next step?

A. Install the correct bracket, then recalibrate

B. Replace the camera module

C. Replace the windshield

D. Reprogram the ultrasonic sensors

18. A static calibration requires the target centered on the vehicle and squared. The technician has positioned it at the correct distance but not yet verified squareness. What is the best next step?

A. Initiate the calibration immediately

B. Verify the target is squared and centered before initiating

C. Road test the vehicle

D. Replace the target board

19. A procedure requires a static calibration followed by a dynamic calibration. The technician has completed the static portion successfully. What is the best next step?

A. Perform the required dynamic calibration portion

B. Release the vehicle as fully calibrated

C. Replace the forward radar

D. Reprogram the gateway

20. A vehicle with several simultaneous ADAS faults and lost-communication codes is being diagnosed. After the full scan, what is the best next step?

A. Replace the most expensive sensor

B. Diagnose each system in complete isolation

C. Look for the single shared cause that explains all symptoms

D. Clear the codes and release

21. A forward camera complaint appears only in heavy fog and clears in good weather. The camera, glass, aim, and network all check out. What is the best next step?

A. Replace the camera module

B. Explain that this is a normal visibility limitation

C. Reprogram the gateway

D. Replace the windshield

22. A technician needs to verify a module is receiving its supply voltage. What is the correct next step?

A. Measure resistance with the key off

B. Measure voltage at the supply pin with the key on

C. Perform a voltage-drop test on a dead circuit

D. Replace the module

23. A new ADAS module was installed and physically mounted. It does not function for the vehicle's option package. What is the best next step?

A. Recalibrate only

B. Replace the windshield

C. Program and code/configure the module to the vehicle, then initialize and calibrate

D. Bleed the brakes

24. A technician suspects a bus integrity problem. The bus is at rest. What is the best next step?

A. Measure voltage at each module pin

B. Measure CAN-H to CAN-L resistance

C. Perform a road test

D. Recalibrate the camera

25. Parking sensors false-alert after a bumper repaint. The technician has confirmed the complaint. What is the best next step?

A. Inspect the sensor faces for excessive paint and contamination

B. Replace the forward radar

C. Reprogram the gateway

D. Perform a wheel alignment

26. A technician confirms excessive paint on an ultrasonic sensor face is causing false alerts. What is the best next step?

A. Replace the forward camera

B. Perform a dynamic calibration

C. Correct the sensor-face finish, then verify operation

D. Reprogram the gateway

27. A radar feature misjudges objects laterally after a bumper repair disturbed its mounting. The radar communicates normally. What is the best next step?

A. Replace the radar module

B. Correct the mounting and perform the required aiming/calibration

C. Replace the windshield

D. Bleed the brakes

28. A technician has mapped lost-communication relationships and finds every module reports losing the same one module. What is the best next step?

A. Replace all reporting modules

B. Recalibrate the camera

C. Perform a wheel alignment

D. Check the named module's power, ground, and bus connection

29. A forward camera was replaced with a correct part, mounted, configured, and the glass is correct. Lane features still do not work. What is the best next step?

A. Replace the camera again

B. Replace the windshield

C. Bleed the brakes

D. Perform the required calibration to establish the new camera's reference

30. A technician is researching a vehicle before diagnosis. The customer says lane keeping failed after a recent windshield replacement. What is the best next step?

A. Review the service history and inspect the glass and camera calibration status

B. Replace the forward radar

C. Check the tire pressures

D. Reprogram the gateway

31. A static calibration target distance is specified in millimeters, but the technician's tape reads inches. What must be done before placing the target?

A. Initiate the calibration anyway

B. Replace the target board

C. Convert the units accurately

D. Reprogram the module

32. A vehicle's forward radar is confirmed to have good power, ground, and intact bus wiring, yet it still cannot communicate. What is the best next step?

A. Clear the fascia of obstruction

B. Perform a wheel alignment

C. Replace the windshield

D. Suspect the radar module or its internal bus interface

33. A technician is about to road test an active system that can brake. What is the best next step to ensure safe verification?

A. Disable the brakes during the test

B. Test in heavy traffic

C. Choose suitable conditions, remain in control, and follow safe-testing practices

D. Skip the road test entirely

34. A camera complaint occurs only at low sun angles with glare, and everything else checks out. What is the best next step?

A. Replace the camera

B. Reprogram the gateway

C. Explain that glare is a normal visibility limitation

D. Replace the windshield

35. A technician finds an ADAS ground reads 1.3 volts of drop under load. What is the best next step?

A. Accept it as normal

B. Repair the high-resistance ground connection

C. Replace the module

D. Recalibrate the sensor

36. A dynamic calibration cannot complete because the technician cannot sustain the required speed in traffic. What is the best next step?

A. Replace the radar

B. Switch to static without checking the procedure

C. Reprogram the gateway

D. Find a route meeting the specified speed and conditions

37. A technician has corrected all root causes and performed calibrations and configuration. What is the best next step before release?

A. Skip the post-repair scan

B. Release immediately

C. Repeat the pre-repair scan only

D. Perform a post-repair scan and functional verification

38. A bumper repair involved the forward radar mounting and fascia, and now forward-distance features misjudge. What is the best next step?

A. Replace the rear ultrasonic sensors

B. Inspect and correct the radar mounting/aim and fascia condition, then recalibrate

C. Replace the driver-monitoring camera

D. Replace the tire pressure sensors

39. A technician needs to confirm a connection that looks clean but is suspected of failing under load. What is the best next step?

A. Visual inspection only

B. Key-off continuity test

C. Replace the connector

D. Voltage-drop test under load

40. A composite-vehicle scenario asks which components are the primary forward inputs. What is the best basis for the next step?

A. Choose the most expensive components

B. Choose the components closest to the driver

C. Read the reference's defined primary inputs (forward radar and forward camera)

D. Choose the rear corner radars

41. A technician is positioning a target and must establish the vehicle centerline on the floor. What is the best next step?

A. Use a compression tester

B. Use a plumb bob and string line to transfer reference points

C. Use a timing light

D. Use a vacuum gauge

42. A radar disables in heavy snow buildup and resumes once cleared. What is the best next step?

A. Replace the radar

B. Reprogram the gateway

C. Replace the windshield

D. Recognize this as a likely normal, self-resolving blockage condition

43. A technician has confirmed a module appears dead to the scan tool. What is the best next step before condemning it?

A. Replace it immediately

B. Recalibrate it

C. Verify it has power, ground, and an intact bus connection

D. Reprogram the gateway

44. A vehicle's body-network modules are normal but all ADAS-network modules are offline. What is the best next step?

A. Replace each ADAS sensor

B. Investigate the ADAS network segment and its gateway connection

C. Replace the windshield

D. Check the tire pressure sensors

45. A static calibration bay floor slopes toward a drain. What is the best next step before calibrating?

A. Proceed anyway

B. Move to a level surface or correct the floor

C. Increase the supply voltage

D. Replace the camera

46. A technician has performed the static portion of a two-part calibration and confirmed it succeeded. The procedure also requires a dynamic portion. What is the best next step?

A. Perform the dynamic portion under the required conditions

B. Release the vehicle

C. Replace the radar

D. Reprogram the gateway

47. A forward camera was reinstalled after a mirror replacement without recalibration, and lane keeping nudges inconsistently. The glass and communication are fine. What is the best next step?

A. Replace the camera

B. Replace the windshield

C. Reprogram the gateway

D. Perform the required camera calibration

48. A technician must decide whether a sensor needs static, dynamic, or both calibrations. What is the best next step?

A. Always choose static

B. Always choose dynamic

C. Skip calibration if no codes

D. Follow the specific manufacturer procedure for that vehicle and sensor

49. A vehicle has intermittent multi-system ADAS faults coinciding with a corroded shared ground. What is the best next step?

A. Repair the shared ground and re-verify the affected systems

B. Replace each affected sensor

C. Replace the gateway

D. Recalibrate all cameras first

50. A technician has completed repairs, calibration, a clean post-repair scan, and a road test confirming each feature works. What is the best final step?

A. Perform another pre-repair scan

B. Release the vehicle as a confirmed repair

C. Recalibrate everything again

D. Reprogram the gateway

Answer Key & Full Answer Explanations

1. A — After verifying the complaint and researching history, the pre-repair scan documents existing fault codes and establishes a baseline. Calibrating, replacing, or releasing before scanning skips the diagnostic foundation. The baseline distinguishes pre-existing issues from anything introduced later.

2. A — With lost-communication codes across several modules, the next step is mapping which modules report losing which to identify a shared cause. Replacing parts, clearing codes, or calibrating ignores the pattern. The relationship map localizes the root fault.

3. B — With confirmed procedure and scan done, an aftermarket lift means ride height must be restored before proceeding. Positioning targets or initiating calibration first would lock the aiming error in. Geometry is a prerequisite to calibration.

4. A — To confirm a high-resistance ground with the key on and the circuit loadable, perform a voltage-drop test under load. A de-energized resistance check can pass while the ground fails under load. Current must flow for the drop to appear.

5. C — A camera reinstalled on correct, aligned glass still needs the required calibration and functional verification before release. Replacing the camera, reprogramming the gateway, or bleeding brakes do not address the disturbed reference. Recalibration after glass service is mandatory.

6. D — After confirming a blocked-condition complaint following off-road driving, inspect and clear the fascia in front of the radar. Replacing, calibrating, or reprogramming skips the obvious, correctable cause. Blockage is a normal protective response.

7. C — Once mud is cleared and the blocked condition resolves, verify the radar feature now functions before returning the vehicle. Replacing, aligning, or reprogramming are unnecessary. Verification confirms the correction worked.

8. A — A correctly mounted, configured new corner radar that still misbehaves needs its required aiming/calibration. Replacing again, replacing glass, or bleeding brakes would not aim the radar. A replacement radar must be calibrated before release.

9. C — A dynamic calibration that won't complete on an unmarked road requires relocating to a road with clear lane markings meeting the procedure conditions. Replacing the camera, reprogramming, or switching methods without checking the procedure are inappropriate. Dynamic calibration depends on meeting road conditions.

10. C — A static calibration aborting in a cluttered, reflective bay requires relocating to a bay meeting the clean-background and lighting requirements. Replacing the camera, raising voltage, or switching to dynamic do not address the environment. The bay is part of the procedure.

11. B — With several modules offline on one segment while others respond, check the shared bus segment, its connectors, and its gateway connection. Replacing each module, recalibrating, or releasing ignores the segment-wide pattern. The affected-versus-unaffected pattern localizes the fault.

12. D — An unresponsive radar reading zero volts at its supply pin calls for tracing upstream to the fuse and power feed. Recalibrating, replacing, or calibrating ignores the missing power. Restore power before condemning the module.

13. A — After a recalibration and clean post-repair scan on a safety-critical feature, perform functional verification including a road test where needed. Releasing on the scan alone, repeating only the pre-repair scan, or reprogramming the gateway are insufficient. A misaimed sensor can pass a scan, so function must be confirmed.

14. A — With clear glass, normal communication, and a correct bracket and ride height, determine whether the shared camera needs recalibration or a software update. Ultrasonic sensors, the key fob, and tire pressure sensors are unrelated to grouped forward-vision faults. The shared camera is the common denominator.

15. D — Before testing a park-assist system that can steer, ensure the area around and inside the vehicle is clear. Disconnecting the gateway, removing the bumper, or charging the battery do not address the actuation hazard. Any system that can move the vehicle requires a cleared work area.

16. D — When a composite-vehicle activation value differs from a real vehicle, use the value defined in the reference. Real-vehicle behavior, averaging, or skipping are all wrong for reference questions. The reference is the single source of truth.

17. A — A wrong-part bracket shifting camera aim is corrected by installing the correct bracket, then recalibrating. Replacing the camera, replacing glass, or reprogramming ultrasonic sensors would not fix the mounting error. Correct mounting precedes calibration.

18. B — With the target at the correct distance but squareness unverified, verify it is squared and centered before initiating. Initiating immediately, road testing, or replacing the target are premature. A target not squared teaches a skewed reference.

19. A — After a successful static portion of a static-plus-dynamic procedure, perform the required dynamic portion. Releasing, replacing the radar, or reprogramming would leave the calibration incomplete. The full specified procedure must be performed.

20. C — After a full scan of several simultaneous faults with lost-communication codes, look for the single shared cause that explains all symptoms. Replacing expensive parts, isolating each system, or clearing codes ignores the pattern. The simplest shared cause is usually correct.

21. B — A camera complaint only in heavy fog that clears in good weather, with everything verified, is a normal visibility limitation to explain to the customer. Replacing the camera or windshield or reprogramming would not address a designed limit. Condition-specific symptoms usually indicate normal behavior.

22. B — To verify a module's supply, measure voltage at the supply pin with the key on. Key-off resistance, a dead-circuit voltage-drop test, or replacement do not confirm live supply. Match the measurement to the question.

23. C — A mounted new module that fails for the option package needs programming and coding/configuration to the vehicle, then initialization and calibration. Calibration alone, a windshield, or a brake bleed would not complete the electronic setup. Replacement requires both electronic setup and calibration.

24. B — To assess bus integrity with the bus at rest, measure CAN-H to CAN-L resistance. Pin voltages, a road test, or recalibration do not evaluate termination and wiring. The resistance check rules the bus in or out.

25. A — Parking-sensor false alerts after a repaint call for inspecting the sensor faces for excessive paint and contamination. Replacing the radar, reprogramming, or aligning are unrelated to ultrasonic false alerts. Bumper refinishing is a classic ultrasonic cause.

26. C — Once excessive paint is confirmed on a sensor face, correct the sensor-face finish, then verify operation. Replacing the camera, calibrating dynamically, or reprogramming do not address the painted face. Correct the cause, then confirm the fix.

27. B — A radar misjudging objects laterally after a disturbed mounting requires correcting the mounting and performing the required aiming/calibration. Replacing the radar, replacing glass, or bleeding brakes would not restore aim. Correct mounting, then recalibrate.

28. D — When every module reports losing the same one module, check that named module's power, ground, and bus connection. Replacing the reporting modules, recalibrating, or aligning ignores the pattern. The relationship map points to the shared element.

29. D — A correct, mounted, configured new camera on correct glass that still fails needs the required calibration to establish its reference. Replacing again, replacing glass, or bleeding brakes would not aim the camera. A new sensor must be calibrated before it works.

30. A — For a lane-keeping complaint after a windshield replacement, review the service history and inspect the glass and camera calibration status. Replacing the radar, checking tire pressures, or reprogramming the gateway miss the obvious lead. Timeline correlation with prior repairs guides diagnosis.

31. C — With a millimeter spec and an inch tape, convert the units accurately before placing the target. Initiating anyway, replacing the target, or reprogramming would mislocate it. A conversion error corrupts the calibration.

32. D — With confirmed power, ground, and intact bus wiring, a radar that still cannot communicate points to the module or its internal bus interface. Clearing the fascia, aligning, or replacing glass would not restore communication. Once the external circuit checks out, the module is the suspect.

33. C — Safe verification of an active braking system means choosing suitable conditions, remaining in control, and following safe-testing practices. Disabling the brakes, testing in heavy traffic, or skipping the test are unsafe or inadequate. Verify function without creating a hazard.

34. C — A camera washing out only under low-sun glare, with everything verified, is a normal visibility limitation to explain. Replacing the camera or windshield or reprogramming would not address a designed limit. Glare is a limitation of optical sensing, not a fault.

35. B — A ground reading 1.3 volts of drop under load indicates a high-resistance connection to repair. Accepting it, replacing the module, or recalibrating would leave the real fault. Excessive ground-side drop starves the module.

36. D — A dynamic calibration that cannot reach the required speed in traffic requires finding a route meeting the specified speed and conditions. Replacing the radar, switching methods blindly, or reprogramming are inappropriate. Dynamic calibration depends on meeting its conditions.

37. D — After correcting root causes and performing calibrations and configuration, perform a post-repair scan and functional verification. Skipping the scan, releasing immediately, or repeating only the pre-repair scan are insufficient. Verification closes the loop.

38. B — Forward-distance features misjudging after a repair involving the radar mounting and fascia call for inspecting and correcting the radar mounting/aim and fascia condition, then recalibrating. Rear ultrasonic sensors, the driver camera, and tire pressure sensors are unrelated. Collision repair commonly disturbs forward-radar aim.

39. D — To confirm a clean-looking connection suspected of failing under load, perform a voltage-drop test under load. Visual inspection, key-off continuity, or replacement do not reveal a load failure. Current must flow for the drop to expose it.

40. C — For the primary forward inputs, read the reference's defined primary inputs — the forward radar and forward camera. Cost, proximity to the driver, or rear radars are not the basis. The reference's stated inputs are the answer.

41. B — To establish the vehicle centerline on the floor, use a plumb bob and string line to transfer reference points. Engine-diagnostic tools do not establish calibration geometry. Simple measurement tools build the calibration setup.

42. D — A radar disabling in heavy snow buildup and resuming once cleared is a likely normal, self-resolving blockage condition. Replacing the radar or windshield or reprogramming would be unnecessary. Blockage protection is designed behavior.

43. C — Before condemning a module that appears dead, verify it has power, ground, and an intact bus connection. Replacing, recalibrating, or reprogramming the gateway risks discarding a good part. A powerless or disconnected module appears dead but is not failed.

44. B — Body-network modules normal but all ADAS-network modules offline calls for investigating the ADAS network segment and its gateway connection. Replacing sensors, replacing glass, or checking tire pressure sensors miss the segment-wide pattern. The pattern isolates the shared segment.

45. B — A static-calibration bay floor sloping toward a drain requires moving to a level surface or correcting the floor before calibrating. Proceeding, raising voltage, or replacing the camera ignore the requirement. A level floor is required for accurate static calibration.

46. A — After a successful static portion of a two-part procedure, perform the dynamic portion under the required conditions. Releasing, replacing the radar, or reprogramming would leave it incomplete. The complete specified procedure must be performed.

47. D — A camera reinstalled after a mirror replacement without recalibration, with fine glass and communication, needs the required camera calibration. Replacing the camera or windshield or reprogramming would not address the disturbed reference. Any camera removal triggers recalibration.

48. D — To decide between static, dynamic, or both, follow the specific manufacturer procedure for that vehicle and sensor. Defaulting to one method or skipping calibration when no codes are present is wrong. The procedure, not a general rule, governs.

49. A — Intermittent multi-system faults coinciding with a corroded shared ground call for repairing the shared ground and re-verifying the affected systems. Replacing sensors, replacing the gateway, or recalibrating first ignores the shared cause. Pursue the shared root before swapping parts.

50. B — After repairs, calibration, a clean post-repair scan, and a road test confirming each feature, release the vehicle as a confirmed repair. Another pre-repair scan, recalibrating again, or reprogramming are unnecessary. A post-repair scan plus functional verification confirms the repair.