

# PRACTICE EXAM 19

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1. Technician A says a forward camera bonded to the windshield must be recalibrated after the glass is replaced. Technician B says recalibration is needed only if a DTC is set. Who is correct?

- A. Technician B only, because no code means no calibration is needed
- B. Technician A only, because the swap disturbs the camera's reference
- C. Both technicians, since either condition always requires calibration
- D. Neither technician, since cameras never need recalibration at all

2. A technician plans to skip the pre-scan and begin repairs immediately to save time. The MOST significant problem with this plan is that:

- A. The vehicle's ride height cannot be measured without a pre-scan first
- B. Pre-existing DTCs go undocumented, blurring repair-caused faults
- C. The radar sensor will physically lose its aim without a pre-scan
- D. The battery support unit cannot be connected after repairs begin

3. Technician A says radar can measure a target's closing speed; Technician B says a camera classifies object type. Who is correct?

- A. Technician A only, because cameras cannot identify object types
- B. Technician B only, because radar cannot measure any closing speed
- C. Both technicians, since each describes a correct sensor capability
- D. Neither technician, since both functions require ultrasonic sensors

4. A technician performs a static calibration on a sloped floor because the level bay is occupied. The MOST likely problem with this decision is that:

- A. The scan tool will be unable to communicate with the gateway module

- B. The radar module will draw current beyond its rated specification
- C. The steering angle sensor will lose its stored zero-point reference
- D. The slope skews the pitch reference, producing an aim error

5. Technician A says a battery support unit keeps voltage stable during calibration. Technician B says low voltage can cause module resets mid-procedure. Who is correct?

- A. Technician A only, because voltage never affects calibration results
- B. Both technicians, since stable voltage prevents resets and bad data
- C. Technician B only, because a support unit serves no real purpose
- D. Neither technician, since calibration ignores system voltage entirely

6. A technician aims a forward radar using the front bumper edge as the reference datum. The flaw in this approach is that:

- A. Bumper edges reflect radar more strongly than the body structure
- B. The bumper is the only valid datum for ultrasonic calibration setups
- C. Bumper position varies with cover fit and is not a true datum
- D. Bumper measurement requires a laser tool the procedure forbids

7. Technician A says dynamic calibration requires driving at a set speed; Technician B says static calibration uses positioned targets. Who is correct?

- A. Technician A only, because static calibration also requires driving
- B. Technician B only, because dynamic calibration uses fixed targets
- C. Neither technician, since both methods are fully automatic
- D. Both technicians, since each correctly describes its method

8. A technician clears all DTCs first, then performs the calibration, then releases the vehicle without a road test. The flawed step is:

- A. Releasing without a functional road test to confirm real operation
- B. Clearing the DTCs before beginning the calibration procedure
- C. Performing the calibration after the codes were first retrieved
- D. Documenting the codes during the initial pre-scan of the vehicle

9. Technician A says ride height affects radar aim; Technician B says ride height affects camera aim. Who is correct?

- A. Technician A only, because ride height never affects the camera
- B. Technician B only, because ride height never affects the radar
- C. Both technicians, since ride height shifts pitch for both sensors
- D. Neither technician, since ride height has no effect on any sensor

10. A technician uses a calibration target from a different make because the correct one is unavailable. The MOST likely consequence is:

- A. Faster calibration because most targets are fully interchangeable
- B. Improved accuracy because the substitute target is newer in design
- C. No effect, since the camera ignores the target pattern's geometry
- D. An invalid calibration because the pattern geometry does not match

11. Technician A says AEB can apply the brakes automatically; Technician B says FCW only warns the driver. Who is correct?

- A. Both technicians, since AEB brakes and FCW provides a warning
- B. Technician A only, because FCW also applies the brakes itself
- C. Technician B only, because AEB does not apply the brakes at all
- D. Neither technician, since both systems function identically

12. A technician finds a loose forward-camera bracket and recalibrates without securing it first. The problem with this sequence is that:

- A. The radar sensor will lose its aim while the camera calibrates
- B. Calibrating to a loose mount produces an unreliable reference
- C. The scan tool cannot run a calibration with any bracket installed
- D. The steering angle sensor zero-point resets when the camera moves

13. Technician A says a gateway routes network data; Technician B says the gateway generates ultrasonic pulses. Who is correct?

- A. Both technicians, since the gateway performs both functions
- B. Technician B only, because the gateway drives the parking sensors
- C. Technician A only, because the gateway routes data, not pulses
- D. Neither technician, since the gateway only powers the radar sensor

14. A technician concludes a repair is complete because the scan tool shows "calibration complete." The weakness in this conclusion is that:

- A. The scan tool cannot display a calibration-complete status at all
- B. A status message alone does not confirm real-world performance
- C. Calibration completion proves the road test is no longer necessary
- D. The complete status means the pre-scan can now be skipped entirely

15. Technician A says thick non-OEM paint over a radar can cut its range; Technician B says debris on the sensor face can too. Who is correct?

- A. Technician A only, because debris never affects radar performance
- B. Both technicians, since paint and debris both attenuate the signal
- C. Technician B only, because paint thickness has no measurable effect

D. Neither technician, since radar passes through all coverings freely

16. A technician diagnoses an ADAS lamp by immediately replacing the radar sensor. The flaw in this approach is that:

- A. Radar sensors can never be the cause of an ADAS warning lamp
- B. The replacement must always be a camera rather than a radar unit
- C. Calibration must be performed before any diagnosis can begin
- D. No scan was done to retrieve codes and identify the actual fault

17. Technician A says lane keeping assist applies steering torque; Technician B says lane departure warning only alerts the driver. Who is correct?

- A. Both technicians, since LKA steers and LDW provides a warning
- B. Technician A only, because LDW also applies steering correction
- C. Technician B only, because LKA does not apply any steering torque
- D. Neither technician, since both systems behave the same way

18. A technician measures from only one front hub to the calibration target and assumes the target is square. The problem is that:

- A. Hub measurements have no relationship to target squareness at all
- B. Squareness requires measuring both sides to confirm equal distances
- C. Only the rear hubs may be used to establish target squareness
- D. Target squareness is irrelevant to any camera calibration outcome

19. Technician A says incorrect tire size can skew the dynamic calibration speed signal. Technician B says tire size has no effect. Who is correct?

- A. Technician A only, because rolling radius affects the speed signal

- B. Technician B only, because tire size never affects calibration
- C. Both technicians, since each statement is partly accurate here
- D. Neither technician, since only tire brand affects calibration

20. A technician selects an aftermarket procedure with a different target distance than the OEM specification. The correct action instead is to:

- A. Follow the OEM distance validated for that specific vehicle
- B. Average the two distances to reach a reasonable compromise
- C. Use whichever distance is easier to set up in the shop bay
- D. Choose the aftermarket distance because it is usually faster

21. Technician A says a static calibration needs targets positioned to spec; Technician B says ambient lighting can affect camera target acquisition. Who is correct?

- A. Technician A only, because lighting never affects the camera
- B. Both technicians, since geometry and lighting both matter
- C. Technician B only, because targets need not be positioned to spec
- D. Neither technician, since static calibration uses no targets at all

22. A technician notices a new DTC appeared only in the post-scan and clears it without investigating. The problem with this is that:

- A. Post-scan codes are always false and should be ignored routinely
- B. The new code cannot be cleared until the pre-scan is repeated first
- C. Clearing any code automatically recalibrates all the sensors again
- D. The new code may reflect a repair-caused fault needing investigation

23. Technician A says radar uses radio waves; Technician B says lidar uses laser light. Who is correct?

- A. Technician A only, because lidar also uses radio-frequency energy
- B. Technician B only, because radar uses ultrasonic sound pulses
- C. Neither technician, since both sensors rely on optical cameras
- D. Both technicians, since each correctly identifies the energy used

24. A technician calibrates a camera with a sticker partially covering its field of view. The MOST likely problem is that:

- A. The sticker changes the vehicle's measured thrust line during setup
- B. The sticker lowers the radar module's supply voltage below spec
- C. The sticker blocks part of the optical path, impairing acquisition
- D. The sticker resets the steering angle sensor zero-point each cycle

25. Technician A says a windshield-mounted camera moves if the glass is replaced. Technician B says replacing the glass never affects camera aim. Who is correct?

- A. Technician A only, because the camera reference shifts with the glass
- B. Technician B only, because the camera is independent of the glass
- C. Both technicians, since the camera both moves and stays fixed
- D. Neither technician, since cameras are mounted only to the body

26. A technician performs only the static portion when the OEM specifies both static and dynamic calibration. The flaw is that:

- A. Static calibration alone is always sufficient for any camera repair
- B. The dynamic portion must always be performed before the static one
- C. Performing static at all invalidates the entire calibration result
- D. The omitted dynamic step leaves on-road performance unverified

27. Technician A says cross-traffic alert uses rear corner radar; Technician B says it uses the forward windshield camera. Who is correct?

- A. Both technicians, since the system uses radar and the camera together
- B. Technician A only, because rear corner radar scans behind the vehicle
- C. Technician B only, because the forward camera covers cross traffic
- D. Neither technician, since cross-traffic alert uses wheel-speed data

28. A technician assumes a radar sensor needs no defined aim because it scans widely. The error in this assumption is that:

- A. Radar sensors are entirely omnidirectional and need no mounting
- B. Radar aim only matters for ultrasonic parking sensor systems
- C. A small aim error can make radar track the wrong lane's traffic
- D. Radar aim affects only the vehicle's ride height, not detection

29. Technician A says voltage drop testing finds intermittent grounds; Technician B says swapping modules is the best first step for ground faults. Who is correct?

- A. Both technicians, since either method efficiently locates the fault
- B. Technician B only, because module swapping isolates ground faults
- C. Neither technician, since ground faults require sensor recalibration
- D. Technician A only, because voltage drop testing localizes the fault

30. A technician enters the wrong vehicle option content into the scan tool before calibration. The MOST likely result is that:

- A. The battery support unit overcharges the vehicle's 12-volt system
- B. The tool loads parameters that do not match the actual vehicle
- C. The radar sensor physically shifts its mounting bracket position

D. The camera module exceeds its rated maximum operating temperature

31. Technician A says an interior camera can monitor driver attention; Technician B says a forward camera reads traffic signs. Who is correct?

A. Technician A only, because forward cameras cannot read any signs

B. Technician B only, because interior cameras serve no real purpose

C. Neither technician, since both functions require radar sensors

D. Both technicians, since each describes a correct camera role

32. A technician calibrates with the steering wheel turned slightly off-center. The MOST likely consequence is that:

A. The off-center setup introduces a yaw error into the lane reference

B. The radar module's supply voltage rises above its rated limit

C. The camera's operating temperature exceeds its rated maximum

D. The wheel-speed sensor tone ring demagnetizes during the setup

33. Technician A says reflective surfaces near a radar calibration can cause false returns. Technician B says a wall standoff distance prevents stray reflections. Who is correct?

A. Technician A only, because standoff distance serves no purpose here

B. Technician B only, because reflective surfaces never affect radar

C. Both technicians, since reflections and standoff both matter

D. Neither technician, since radar calibration ignores nearby surfaces

34. A technician concludes that a blind spot fault on one side only must be a network gateway problem. The weakness in this conclusion is that:

A. A gateway fault always affects the radar sensor's physical aim

- B. One-sided faults can never involve the network in any vehicle
- C. A one-sided fault more likely involves that side's output circuit
- D. Blind spot systems do not connect to the vehicle network at all

35. Technician A says the composite vehicle reference is manufacturer-neutral. Technician B says it lists one production vehicle's part numbers. Who is correct?

- A. Technician A only, because the reference is a neutral composite design
- B. Technician B only, because it details a single real vehicle's parts
- C. Both technicians, since the reference is both neutral and specific
- D. Neither technician, since the reference provides the test answer key

36. A technician uses an improvised reflector instead of the specified radar target fixture. The MOST likely problem is that:

- A. The improvised reflector overcharges the 12-volt battery system
- B. The reflector resets the steering angle sensor's zero-point reference
- C. Incorrect reflective geometry yields an inaccurate radar reference
- D. The reflector raises the camera module's rated temperature limit

37. Technician A says post-scan verifies systems after repair; Technician B says pre-scan documents codes before repair. Who is correct?

- A. Technician A only, because pre-scan serves no documentation role
- B. Technician B only, because post-scan does not verify any systems
- C. Both technicians, since each scan serves its described purpose
- D. Neither technician, since one combined scan replaces both steps

38. A technician performs a camera dynamic calibration on faded, poorly marked roads. The MOST likely problem is that:

- A. The camera cannot gather clear lane data, so calibration may fail
- B. The radar sensor loses its horizontal aim on the unmarked road
- C. The steering angle sensor zero-point resets on the faded surface
- D. The ultrasonic sensors increase their frequency beyond the rating

39. Technician A says a higher radar frequency improves resolution; Technician B says radar works in darkness and rain. Who is correct?

- A. Technician A only, because radar fails in darkness and rain
- B. Technician B only, because frequency does not affect resolution
- C. Neither technician, since radar relies on visible scene lighting
- D. Both technicians, since each correctly describes a radar trait

40. A technician releases a vehicle after calibration based only on the absence of a warning lamp. The flaw is that:

- A. A warning lamp can never illuminate for any ADAS-related fault
- B. The absence of a lamp always proves the calibration was perfect
- C. A lamp check replaces the need for any calibration procedure
- D. No lamp does not confirm correct functional system operation

41. Technician A says ultrasonic sensors can miss low or angled objects; Technician B says debris on the sensor face degrades them. Who is correct?

- A. Technician A only, because debris never affects ultrasonic sensors
- B. Technician B only, because low objects are always detected reliably
- C. Both technicians, since field limits and debris both matter
- D. Neither technician, since ultrasonic sensors detect all objects equally

42. A technician assumes any forward camera removal is safe without recalibration if undamaged. The error is that:

- A. Removal disturbs the camera's reference, so recalibration is needed
- B. Cameras only need calibration after a confirmed collision event
- C. Calibration depends solely on whether a DTC is currently stored
- D. Undamaged cameras never require recalibration under any condition

43. Technician A says OEM service information specifies validated geometry. Technician B says a generic tool menu is equally authoritative. Who is correct?

- A. Technician A only, because OEM data provides validated conditions
- B. Technician B only, because the tool menu is the better source
- C. Both technicians, since either source is fully authoritative
- D. Neither technician, since a tire chart is the proper source

44. A technician finds multiple modules offline together and suspects each module failed individually. The MOST likely actual cause is:

- A. Every module coincidentally failed at the same exact moment
- B. A shared bus segment or gateway fault affecting all of them
- C. A single camera bracket loosening after a windshield swap
- D. One rear radar sensor's face being covered with road debris

45. Technician A says a vehicle must settle before calibration; Technician B says ride height does not matter. Who is correct?

- A. Technician A only, because a transient ride height skews aim
- B. Technician B only, because ride height never affects calibration
- C. Both technicians, since settling and ride height are unrelated

D. Neither technician, since calibration ignores vehicle attitude

46. A technician torques the radar mounting fasteners well beyond the specified value. The MOST likely concern is that:

- A. Overtorque increases the radar sensor's maximum detection range
- B. Overtorque resets the steering angle sensor's stored zero-point
- C. Overtorque can distort the mount or bracket, shifting sensor aim
- D. Overtorque lowers the camera module's rated operating temperature

47. Technician A says traffic sign recognition uses a forward camera; Technician B says it uses rear corner radar. Who is correct?

- A. Both technicians, since the system uses the camera and radar jointly
- B. Technician B only, because rear radar reads the posted road signs
- C. Neither technician, since sign recognition uses ultrasonic sensors
- D. Technician A only, because the forward camera reads the signs

48. A technician plans the calibration order arbitrarily during a multi-system repair. The problem with arbitrary ordering is that:

- A. Some systems depend on others, so OEM sequence must be followed
- B. Calibration order has no effect on any multi-system repair outcome
- C. The easiest-access sensor must always be calibrated first by rule
- D. Cameras must always be calibrated before radar in every vehicle

49. Technician A says automatic high beams use a forward camera to detect lights. Technician B says they use rear radar. Who is correct?

- A. Both technicians, since the camera and radar share the function

- B. Technician A only, because the camera detects oncoming vehicle lights
- C. Technician B only, because rear radar controls the high beams
- D. Neither technician, since high beams use the steering angle sensor

50. A technician completes all repairs and calibrations and must choose a final verification step. The BEST choice is to:

- A. Confirm only that the warning lamp is off at the moment of key-on
- B. Record the scan tool's one-time complete status and release the car
- C. Clear the DTC memory again without any functional verification
- D. Perform a post-scan and functional road test confirming operation

## Answer Key & Full Answer Explanations

1. B — A windshield-bonded camera's aim reference is disturbed when the glass is replaced, so recalibration is required regardless of whether a DTC is set. Technician B is right; Technician A's code-only condition is wrong. The physical disturbance, not a stored code, drives the requirement.
2. B — Skipping the pre-scan leaves pre-existing DTCs undocumented, making it impossible to distinguish faults that were already present from those the repair introduced. Ride height, radar aim, and battery support are unrelated to this. The lost baseline is the core problem.
3. C — Radar measures closing speed via Doppler, and a camera classifies object type optically; both statements describe correct capabilities. Neither claim is false, and neither function requires ultrasonics. Each technician names a real sensor strength.
4. D — A sloped floor tilts the vehicle and skews the pitch reference, producing sensor aim error. It does not drop the data link, overdraw radar current, or erase the steering zero-point. A level floor is required for accurate pitch.
5. B — A battery support unit holds voltage steady, and low voltage can reset modules or corrupt calibration data mid-procedure; both statements are correct. Voltage does affect calibration, and the support unit serves a real purpose. Stable voltage protects the result.

6. C — The bumper cover position varies with fit and is not a true datum, so aiming radar from it introduces error versus the defined reference point. Bumper edges are not preferred reflectors or the only ultrasonic datum. Using a proper datum keeps aim accurate.

7. D — Dynamic calibration requires driving at a set speed and static calibration uses positioned targets; both technicians are correct. Static does not require driving, and dynamic does not use fixed targets. Each describes its own method properly.

8. A — The flawed step is releasing the vehicle without a functional road test to confirm real operation. Retrieving codes, clearing them, and then calibrating are acceptable, but verification must follow. The missing road test is the defect.

9. C — Ride height shifts pitch for both radar and camera, so both technicians are correct. Neither sensor is immune to ride-height change. Pitch change from height affects both aims.

10. D — A target from a different make has different pattern geometry, producing an invalid calibration because the camera expects the model-specific pattern. Targets are not interchangeable, newer-equals-better, or ignored by the camera. Pattern mismatch invalidates the result.

11. A — AEB can apply the brakes automatically and FCW only warns, so both technicians are correct. FCW does not brake, and AEB does brake. Each describes its system accurately.

12. B — Calibrating to a loose mount produces an unreliable reference, so the bracket must be secured first. Radar aim, scan-tool capability, and the steering zero-point are not the issue. A stable mount is required before calibration.

13. C — The gateway routes network data; it does not generate ultrasonic pulses, so Technician A is correct and B is wrong. The gateway neither drives parking sensors nor merely powers radar. Data routing is its function.

14. B — A "calibration complete" status alone does not confirm real-world performance, which is the weakness in the conclusion. The tool can display the status, completion does not waive the road test, and the pre-scan is a separate step. Functional verification is still needed.

15. B — Thick non-OEM paint and debris on the sensor face both attenuate the radar signal and cut range, so both technicians are correct. Debris does affect radar, and paint thickness does matter. Radar does not pass through all coverings freely.

16. D — The flaw is replacing the radar with no scan to retrieve codes and identify the actual fault. Radar can cause an ADAS lamp, the part is not necessarily a camera, and diagnosis precedes calibration. Skipping diagnosis is the error.

17. A — LKA applies steering torque and LDW only alerts, so both technicians are correct. LDW does not steer, and LKA does steer. Each describes its system properly.

18. B — Squareness requires measuring both sides to confirm equal hub-to-target distances; one measurement cannot verify it. Hub measurements do relate to squareness, rear hubs are not required, and squareness does matter. Both-side measurement confirms square setup.

19. A — Incorrect tire size changes rolling radius, skewing the speed signal the dynamic calibration relies on, so Technician A is correct. Tire size does affect calibration, and brand is not the relevant factor. Rolling radius drives the speed-signal error.

20. A — The correct action is to follow the OEM distance validated for that specific vehicle. Averaging, choosing by convenience, or defaulting to the faster aftermarket value all risk an invalid setup. OEM specification governs.

21. B — Static calibration needs targets positioned to spec and ambient lighting affects camera acquisition; both technicians are correct. Lighting does matter, and targets must be positioned. Both geometry and lighting are required conditions.

22. D — A new post-scan-only code may reflect a repair-caused fault and must be investigated, not cleared blindly. Post-scan codes are not always false, do not require repeating the pre-scan, and clearing does not recalibrate sensors. Investigation is required.

23. D — Radar uses radio waves and lidar uses laser light; both technicians are correct. Lidar is not RF, radar is not ultrasonic, and neither relies on optical cameras. Each names the correct energy type.

24. C — A sticker over the camera's field of view blocks part of the optical path, impairing target acquisition. It does not change the thrust line, lower radar voltage, or reset the steering zero-point. The optical obstruction is the problem.

25. A — A windshield-mounted camera's reference shifts when the glass is replaced, so Technician A is correct. The camera is not independent of the glass, does not both move and stay fixed, and is mounted to the glass, not only the body. The reference moves with the glass.

26. D — Omitting the dynamic step when both are specified leaves on-road performance unverified. Static alone is not always sufficient, dynamic need not precede static, and doing static does not invalidate the result. The skipped dynamic step is the flaw.

27. B — Cross-traffic alert uses rear corner radar scanning behind the vehicle, so Technician A is correct. It does not use the forward camera, a radar-plus-camera pair for this function, or wheel-speed data. Rear-corner radar covers cross traffic.

28. C — A small aim error can make radar track the wrong lane's traffic, so the assumption that aim does not matter is wrong. Radar is not omnidirectional, aim is not limited to ultrasonics, and aim affects detection, not ride height. Defined aim is essential.

29. D — Voltage-drop testing localizes intermittent grounds, so Technician A is correct; module swapping is not the best first step. Swapping does not efficiently isolate ground faults, and ground faults do not require recalibration. Voltage-drop testing is the proper method.

30. B — Wrong option content makes the tool load parameters that do not match the actual vehicle. It does not overcharge the battery, move the bracket, or overheat the camera. Accurate option entry ensures the correct procedure.

31. D — An interior camera monitors driver attention and a forward camera reads signs; both technicians are correct. Forward cameras do read signs, interior cameras do serve a purpose, and neither function requires radar. Each describes a real camera role.

32. A — An off-center steering wheel introduces a yaw error into the camera's lane reference. It does not raise radar voltage, overheat the camera, or demagnetize a tone ring. Centering the wheel preserves the yaw reference.

33. C — Reflective surfaces can cause false radar returns and a wall standoff prevents stray reflections; both technicians are correct. Standoff does serve a purpose, and reflective surfaces do affect radar. Both reflections and standoff matter.

34. C — A one-sided blind spot fault more likely involves that side's output circuit than a shared gateway, which is the weakness in the gateway conclusion. A gateway fault does not set physical aim, one-sided faults can involve the network, and the system does connect to the network. The side-specific circuit is the likelier cause.

35. A — The composite vehicle reference is a manufacturer-neutral design, so Technician A is correct. It does not list one real vehicle's parts, is not both neutral and specific, and is not an answer key. Neutral standardization is its nature.

36. C — An improvised reflector has incorrect reflective geometry, yielding an inaccurate radar reference. It does not overcharge the battery, reset the steering sensor, or raise camera temperature. The specified fixture ensures a valid reference.

37. C — Post-scan verifies systems after repair and pre-scan documents codes before repair; both technicians are correct. Pre-scan does document, post-scan does verify, and one scan does not replace both. Each scan serves its stated purpose.

38. A — On faded, poorly marked roads the camera cannot gather clear lane data, so dynamic calibration may fail. Radar aim, the steering zero-point, and ultrasonic frequency are not the issue. Clear markings are required for camera learning.

39. D — Higher radar frequency improves resolution and radar works in darkness and rain; both technicians are correct. Radar does not fail in those conditions, and frequency does affect resolution. Each statement is a true radar trait.

40. D — The absence of a warning lamp does not confirm correct functional operation, which is the flaw. A lamp can illuminate for ADAS faults, no-lamp does not prove perfection, and a lamp check does not replace calibration. Functional verification is still needed.

41. C — Ultrasonic sensors can miss low or angled objects and debris on the face degrades them; both technicians are correct. Debris does affect them, and low objects are not always detected. Field limits and contamination both matter.

42. A — Any forward camera removal disturbs its reference, so recalibration is needed even when undamaged. Calibration is not limited to collisions, not determined solely by a stored DTC, and undamaged removal still requires it. Removal alone triggers recalibration.

43. A — OEM service information specifies validated geometry and conditions, so Technician A is correct. A generic tool menu is not equally authoritative, both are not fully authoritative, and a tire chart is not the source. OEM data governs.

44. B — Multiple modules offline together most likely share a bus segment or gateway fault rather than each failing individually. Simultaneous independent failures, a single loose bracket, or one covered radar do not explain the pattern. A shared-network fault is the likely cause.

45. A — A vehicle must settle before calibration because a transient ride height skews aim, so Technician A is correct. Ride height does matter, settling and ride height are related, and calibration does not ignore attitude. Letting it settle stabilizes the reference.

46. C — Overtorquing radar fasteners can distort the mount or bracket, shifting sensor aim. It does not increase detection range, reset the steering zero-point, or change camera temperature. Correct torque preserves aim.

47. D — Traffic sign recognition uses the forward camera to read signs, so Technician A is correct. Rear radar does not read signs, the function is not a joint camera-radar task, and it does not use ultrasonics. The forward camera reads the signs.

48. A — Some systems depend on others, so the OEM-specified calibration sequence must be followed rather than chosen arbitrarily. Order does affect outcomes, easiest-access-first is not a rule, and camera-before-radar is not universal. OEM order preserves interdependencies.

49. B — Automatic high beams use a forward camera to detect oncoming vehicle lights, so Technician A is correct. Rear radar does not control high beams, the function is not shared with radar, and it does not use the steering angle sensor. The forward camera senses the lights.

50. D — The best final verification is a post-scan plus a functional road test confirming operation. Checking only the lamp, recording a one-time complete status, or re-clearing codes without testing do not prove performance. Functional confirmation validates the repair.