PRACTICE EXAM 10: ASE A4 SIMULATION (40 QUESTIONS)

STEERING SYSTEMS DIAGNOSIS AND REPAIR (Questions 1–12)

1. Technician A says a removed airbag module should be stored face-down on a flat surface to prevent accidental deployment. Technician B says SRS service begins with disconnecting the negative battery cable and waiting the specified capacitor discharge time. Who is correct?

A. Technician A only

B. Technician B only

C. Both Technicians A and B

D. Neither Technician A nor B

2. A power steering pump is producing a whining noise only when the steering wheel is turned. With the wheel centered, the noise is not present. Which is the MOST likely cause?

A. The power steering pump is worn internally and near the end of service life

B. The serpentine belt is glazed and slipping on the pump pulley during load

C. The return line has an internal restriction causing backpressure at the pump

D. Air is trapped in the hydraulic system and requires manual bleeding procedure

3. A hydraulic rack and pinion has been replaced. Which of the following is NOT a required post-installation step?

A. Fill the system with the manufacturer-specified power steering fluid type

B. Bleed the system using the manufacturer-specified procedure to remove air

C. Replace the power steering pump along with the rack as a complete system

D. Perform a wheel alignment to restore proper toe and verify tracking

4. A customer complains of a popping noise from the steering column when the wheel is turned at low speeds. The noise originates from inside the dashboard area. What is MOST likely the cause?

A. The intermediate shaft U-joint has worn needle bearings causing the noise

B. The power steering pump is producing noise that transmits through the column

C. The steering angle sensor is producing electrical noise during wheel rotation

D. The clockspring has an internal fault producing a popping sound when turned

5. A recirculating ball gearbox is being checked for sector shaft over-center preload. What must be done BEFORE the measurement?

A. Disconnect the power steering pressure hose from the gearbox inlet port

B. Disconnect the battery to prevent EPS module activation during the check

C. Remove the pitman arm and center the steering wheel for the measurement

D. Drain the power steering fluid from the gearbox to access the adjustment

6. Each of the following can cause reduced power steering assist EXCEPT:

A. A slipping serpentine belt at the power steering pump pulley interface

B. Low fluid level in the power steering reservoir tank of the system

C. Air trapped in the hydraulic system creating fluid aeration during operation

D. A worn front wheel bearing on the driver's side front wheel of the vehicle

7. A 2022 vehicle has a DTC for "EPS motor circuit fault." Scan tool data shows actual motor current at 0 A when 2 A is commanded. Wiring and connections to the motor test good. Which is the correct repair?

A. Replace the EPS control module because the output driver has failed internally

B. Replace the EPS motor because the internal motor winding has failed open

C. Perform an EPS initialization procedure via scan tool and verify operation

D. Disconnect the battery for 30 minutes to reset the EPS module memory

8. A power steering hose is leaking at the crimped metal fitting where it connects to the pump. The technician attempts to tighten the fitting. What is the correct action?

A. Replace the complete hose assembly because crimped fittings cannot be resealed

B. Apply thread sealant to the fitting and tighten to specification for repair

C. Install a new sealing washer between the fitting and the pump housing

D. Overtighten the fitting until the leak stops completely at the connection

9. A vehicle with column-mounted EPS has heavy steering effort at all speeds. Scan tool shows no DTCs. The EPS motor current reads normal when commanded. Which should be checked NEXT?

A. The power steering fluid level because column EPS systems may use hydraulic assist

B. The steering angle sensor for calibration accuracy using a scan tool procedure

C. Battery condition and voltage drop on the EPS power feed under maximum load

D. The serpentine belt tensioner for proper function during high electrical load

10. A clockspring has just been installed on a vehicle with the road wheels centered. The steering wheel has also been installed. When the wheel is turned, the driver notices the horn and radio controls no longer function. What is MOST likely the cause?

A. The SRS module has failed during the installation and requires replacement

B. The airbag module itself has an internal fault affecting the electrical circuits

C. The battery voltage dropped too low during the installation and reset the module

D. The clockspring was not centered before installation and the ribbon cable broke

11. An intermediate shaft has a collapsible section. This section is designed to:

A. Provide rotational offset between the steering column and the steering gear

B. Prevent road vibration from transmitting through the column to the steering wheel

C. Shorten during frontal collision to absorb crash energy and limit driver intrusion

D. Compensate for thermal expansion between the column and the steering gear

12. A vehicle with electrohydraulic power steering (EHPS) has a complaint of pump motor running continuously at full speed regardless of vehicle operation. Scan tool shows no DTCs. What should be checked FIRST?

A. The vehicle speed signal input to the EHPS control module for proper value

B. The EHPS fluid level in the reservoir against the specification on the cap

C. The pump motor itself for internal failure causing the constant operation

D. The EHPS control module for internal failure requiring complete replacement

SUSPENSION SYSTEMS DIAGNOSIS AND REPAIR (Questions 13–24)

13. A MacPherson strut assembly is being disassembled for spring replacement. After the spring compressor is engaged and the strut mount nut is removed, the upper mount lifts off freely. The spring remains captured by the compressor. What does this indicate?

A. The spring compressor is not engaged deeply enough to capture the spring

B. The spring compressor is properly engaged and the service can continue

C. The spring has relaxed beyond its free length and requires replacement

D. The strut rod is damaged and the service must be halted for inspection

14. A customer complains of clunking from the front suspension when going over bumps. The clunking disappears during hard cornering. Which is MOST likely the cause?

A. A worn upper control arm bushing on the driver's side of the vehicle

B. A worn lower ball joint showing significant play during inspection at curb

C. A worn outer tie rod end producing noise during suspension travel cycles

D. A failed stabilizer bar end link producing bilateral clunking during bumps

15. A ball joint is being inspected for wear. The vehicle has SLA front suspension with the coil spring on the lower control arm. The vehicle is on a two-post lift with wheels hanging free. What is the correct inspection method for the lower ball joint?

A. Place a pry bar between the lower control arm and frame to unload the joint

B. Grab the tire at 12 and 6 o'clock and rock it to check vertical play

C. Grab the tire at 3 and 9 o'clock and rock it to check horizontal play

D. Remove the ball joint from the knuckle to inspect for wear directly

16. An air suspension vehicle has a fault code for "ride height sensor out of range — left rear." The technician inspects the sensor and finds the plastic linkage arm has broken. What is the effect on the system?

A. The compressor will overinflate the left rear air spring beyond safe pressure

B. The module will use the opposite corner's sensor data to estimate ride height

C. The module cannot determine corner height and will not command inflation

D. The system defaults to maximum compressor output to restore the corner

17. A leaf spring rear suspension has the axle visibly shifted forward on one side. The leaves appear intact visually. Each of the following could cause this EXCEPT:

A. A sheared center bolt allowing the axle to walk on the spring pack

B. Worn shackle bushings at the rear of the leaf spring on that side

C. A broken main leaf hidden by the spring pack on visual inspection

D. A failed shock absorber on the affected side of the vehicle

18. A stabilizer bar end link is being installed on a vehicle. The link has rubber bushings at each end. The correct practice for final torque is:

A. Torque the fasteners while the vehicle is on a two-post lift with wheels hanging

B. Torque the fasteners at ride height with the suspension loaded to curb weight

C. Torque the fasteners with the vehicle supported on jack stands at the frame

D. Leave the fasteners hand-tight to allow the link to self-position during driving

19. A pickup truck equipped with torsion bar front suspension has ride height below specification on both sides equally. What is the correct action?

A. Adjust both torsion bar preload bolts with the vehicle at curb weight on the ground

B. Lift the vehicle and adjust both torsion bar preloads with wheels hanging free

C. Replace both torsion bars because they have reached the end of their service life

D. Swap the torsion bars left-to-right to equalize the ride height measurement

20. A vehicle with adaptive damping has a fault code for "right rear damper circuit open." Wiring and connector inspection reveals no issues — the harness tests good. What is the correct repair?

A. Replace the suspension control module because the output driver has failed

B. Reset the fault code and road test the vehicle to see if it returns after service

C. Replace the right rear damper along with the left rear damper as a matched pair

D. Replace only the right rear damper since it is confirmed as the failed component

21. A multi-link rear suspension has rear toe readings that cannot be brought within specification despite full adjustment range. The control arms and links appear intact. What is MOST likely the cause?

A. The rear subframe has shifted and requires centering with manufacturer pins

B. The rear tires are worn unevenly affecting the measurement of toe readings

C. The alignment equipment requires recalibration before continuing the service

D. The rear shock absorbers have failed causing dynamic shift during measurement

22. A vehicle exhibits a harsh ride quality that has developed progressively over the past month. Tire pressures are at specification. Ride height is within specification on all four corners. Which is MOST likely the cause?

A. The control arm bushings have deteriorated allowing metal-on-metal contact

B. The stabilizer bar bushings are cracked producing suspension transmission issues

C. The upper strut mounts have developed wear causing asymmetric damping

D. The shock absorbers or struts have failed internally and require replacement

23. A coil spring has developed a visible crack in one of its coils. The technician prepares to replace it. What is the correct service approach?

A. Replace only the cracked spring and verify ride height after the service is complete

B. Straighten the crack and weld the spring to restore original strength in service

C. Replace the cracked spring and the opposite spring on the same axle as a pair

D. Install an aftermarket spring insert to maintain ride height without replacement

24. A subframe has been replaced on a unibody vehicle after collision repair. After reinstallation, the rear toe cannot be adjusted within specification. What is the most likely cause?

A. The replacement subframe is defective and must be returned for replacement

B. The subframe was not centered using the manufacturer's specified centering pins

C. The alignment equipment requires recalibration for the vehicle after service

D. The rear shock absorbers must be replaced before the alignment can continue

WHEEL ALIGNMENT DIAGNOSIS, ADJUSTMENT, AND REPAIR (Questions 25–35)

25. A vehicle has front alignment readings: left camber +0.2° and right camber +1.0°, both technically in spec. The vehicle pulls to the right. What is the MOST likely cause?

A. Cross-camber of 0.8° with the right side more positive creates a rightward pull

B. The absolute camber values are too close to zero causing directional instability

C. The front toe total must be asymmetric to cause the pull at highway speed

D. Normal road crown compensation causing the pull during straight driving

26. A vehicle's alignment shows caster at left +3.0° and right +4.5°. Camber is within specification on both sides. The vehicle pulls at highway speed. In which direction will the pull occur?

A. Toward the right side because the right side has more caster than the left

B. There will be no pull because caster imbalance does not affect pull direction

C. The pull direction depends on the rear toe asymmetry not shown in readings

D. Toward the left side — caster pulls toward the less-caster side of the vehicle

27. Excessive toe-out at the front wheels produces which tire wear pattern?

A. Outside-edge wear with feathering across the tread from outside to inside direction

B. Inside-edge wear with feathering across the tread from inside to outside direction

C. Center tread wear with both shoulders showing significantly less wear pattern

D. Cupped or scalloped wear around the tire circumference affecting both edges

28. A vehicle has SAI readings of 12.8° left and 14.5° right. Camber is within specification on both sides at -0.2°. What does the SAI difference indicate?

A. The alignment equipment requires recalibration before continuing the service work

B. The tire pressures are different between the two sides affecting readings

C. The ride height varies between sides causing apparent SAI measurement shift

D. The right front steering knuckle is bent and requires replacement before alignment

29. A technician is setting front toe after rear toe has been adjusted to center the thrust line. The steering wheel must be:

A. Rotated to full lock position in either direction during the toe measurement

B. Removed from the steering shaft to allow access to the splines during setting

C. Physically centered and held in place with a steering wheel holder tool

D. Disconnected electronically by disabling the EPS system using a scan tool

30. A vehicle's alignment is complete with all angles within specification. The thrust angle reads +0.03°. What does this confirm?

A. The rear toe settings are essentially symmetric and the thrust line matches centerline

B. The front toe settings are correct and the steering wheel will be centered during driving

C. The vehicle has no setback at either axle after the alignment is complete

D. The steering angle sensor has been properly calibrated to the new alignment reference

31. A vehicle has had an alignment performed. The steering wheel was re-centered during the procedure. The vehicle has lane-keep assist. Which calibration is required?

A. Only the tire pressure monitoring system needs to be reset after the service

B. Only the electronic stability control module requires a road test relearn cycle

C. Only the steering angle sensor requires calibration — the forward camera is isolated

D. The steering angle sensor AND the forward camera typically require calibration

32. A FWD vehicle with torsion beam rear suspension has rear toe out of specification on one side only. What is the correct repair?

A. Adjust the rear toe eccentric cam bolt on the affected trailing arm pivot

B. Inspect the torsion beam and trailing arm for bent or damaged condition

C. Rotate the tires front-to-rear to compensate for the out-of-specification reading

D. Adjust the front toe to compensate for the rear toe asymmetry on one side

33. Before beginning a wheel alignment, which step must be performed on the alignment rack?

A. Wheel runout compensation on each wheel to correct for clamp offset errors

B. Front toe adjustment to approximately zero to establish a measurement baseline

C. A full caster sweep to record the initial caster values before any adjustment

D. A road test to evaluate steering feel before beginning the alignment procedure

34. A vehicle has its front camber reading 1.0° more negative than specification on the left side only. The vehicle has MacPherson struts with no factory camber adjustment. What is the correct action?

A. Leave the camber out of specification and document on the alignment printout

B. Reduce tire pressure on the left front to compensate for the negative reading

C. Install aftermarket camber adjustment hardware or repair the underlying cause

D. Swap the left and right strut assemblies to equalize camber between sides

35. A vehicle has a thrust angle reading of +0.45°. Total rear toe is within specification. Which condition exists?

A. The rear alignment is correct because the total rear toe is within specification

B. The front toe settings are symmetric and the steering wheel will be centered

C. The vehicle has collision damage affecting the front suspension system

D. The left and right rear toe settings are asymmetric creating the thrust offset

WHEEL AND TIRE DIAGNOSIS AND SERVICE (Questions 36–40)

36. A vehicle exhibits steering wheel shimmy at 55 mph. All four wheels have been balanced and the balance readings are within specification. What should be checked NEXT?

A. The rear wheel bearings for looseness contributing to the speed-specific shimmy

B. Radial and lateral runout on the front wheel-and-tire assemblies using a dial gauge

C. The front tie rod ends for wear causing vibration at the specific speed noted

D. The front brake rotors for thickness variation causing pulsation at highway speed

37. A direct TPMS system has been serviced — the tires were rotated on the vehicle. After rotation, the dashboard shows tire pressure values assigned to the wrong wheel positions. What is the correct action?

A. Perform the vehicle-specific TPMS relearn procedure to update sensor positions

B. Drive the vehicle at highway speed for 30 continuous minutes to trigger auto-relearn

C. Disconnect the battery for 30 minutes to reset the TPMS module memory completely

D. Replace all four TPMS sensors with new units programmed to the vehicle VIN

38. A wheel bearing is being replaced on a FWD vehicle. The axle nut specification is 220 ft-lb plus 90° rotation. The nut is marked as single-use. Which is the correct practice?

A. Reuse the original axle nut if it is not visibly damaged from service

B. Install any equivalent nut of matching thread pitch and torque to specification

C. Install a new torque-to-yield axle nut and follow the full torque specification

D. Install a new nut and apply anti-seize compound to the threads before torquing

39. A tire shows inside-edge wear that is smooth across the tread — no feathered or sawtooth pattern. What is the MOST likely cause?

A. Excessive toe-out causing the tire to scrub inward during normal driving operation

B. Under-inflation causing the tire to ride on both shoulders during normal driving

C. Worn shock absorbers causing a cupped pattern around the tire circumference

D. Excessive negative camber causing the inside edge to carry more load than outside

40. A tire sidewall marking reads "P215/60R17 96H." The "H" represents:

A. The tire's aspect ratio expressed as a percentage of the section width

B. The tire's maximum speed rating at sustained operating condition per spec

C. The tire's load index specifying the maximum load at rated inflation pressure

D. The tire's wheel diameter expressed in inches from bead to bead across

Practice Exam 10: Answer Key and Explanations

1. B — Only Technician B is correct. SRS service always begins with disconnecting the negative battery cable and waiting the specified capacitor discharge time. Technician A is wrong — removed airbags must be stored face-UP on a flat surface so accidental deployment rockets away from personnel, not into them.

2. D — Whining that appears only during steering input but disappears when the wheel is centered indicates air being drawn into the system during wheel movement. This points to trapped air in the hydraulic circuit requiring further manual bleeding. Pump wear, belt slip, and return restrictions produce more constant noise patterns regardless of wheel position.

3. C — Replacing the pump along with the rack is not a required step — the pump is replaced only when it shows independent failure, not as a rule when servicing the rack. Fluid fill, system bleed, and wheel alignment are all mandatory post-rack-replacement steps. This is a classic "which is NOT required" pattern.

4. A — Popping noises from inside the steering column during wheel rotation are the classic signature of worn U-joint needle bearings in the intermediate shaft. The noise originates where the shaft flexes through its joint. Pump noise is more constant; SAS noise is electrical (not audible); clockspring faults produce electrical symptoms, not popping sounds.

5. C — Sector shaft over-center preload is always adjusted with the pitman arm removed and the steering wheel centered. Adjusting with the pitman installed transfers linkage loads through the gear producing false readings. Fluid drainage, battery disconnect, and hose removal are not part of the over-center preload procedure.

6. D — A worn wheel bearing causes noise and wheel play but does not affect power steering assist. Assist loss originates in the hydraulic or electric steering circuit itself. Belt slip, low fluid, and trapped air all directly affect assist; bearing wear affects a completely independent system and cannot reduce steering assist.

7. B — Motor current at 0 A when 2 A is commanded, with confirmed good wiring and connections, indicates the EPS motor's internal windings have failed open. The module is commanding correctly but the motor cannot produce current because the circuit through the motor is broken internally. Motor or rack replacement (integrated assembly) is the repair.

8. A — Crimped hose fittings cannot be resealed by tightening, thread sealant, or added washers. The crimp itself has failed or the hose end has been damaged, and no amount of additional torque will restore the seal. Power steering hoses are assemblies that must be replaced when leaking at crimped fittings — this is a permanent repair.

9. C — Heavy steering with normal EPS motor current, no DTCs, and functional hardware points to supply-side voltage issues reaching the EPS module under load. EPS motors can draw 80+ amps; voltage drop on power or ground circuits produces heavy effort even when commanded current is normal. Voltage drop testing is the correct diagnostic step.

10. D — When the clockspring is not centered before installation, the ribbon cable gets strained as the wheel is turned and often breaks — killing horn, radio, and steering wheel controls. The loss of multiple steering wheel electrical functions immediately after clockspring installation is the definitive signature of this problem.

11. C — The collapsible section of an intermediate shaft is specifically designed to shorten during a frontal collision, absorbing crash energy and limiting how far the steering column intrudes toward the driver. It works in series with the collapsible column. Rotational offset is handled by U-joints; vibration and thermal expansion are not its purpose.

12. A — EHPS pump motor speed is controlled based on vehicle speed input. When the speed signal is lost or reads zero, the controller typically defaults to full-speed pump operation as a safety fallback. The first diagnostic step is verifying the vehicle speed signal — a missing or incorrect VSS signal produces this exact symptom.

13. B — When a properly engaged spring compressor is in place, the compressed spring stays fully captured when the strut mount nut is removed. No expansion occurs. This is the whole purpose of the compressor — to capture spring energy safely so the upper mount can be removed and serviced without the spring releasing.

14. D — Failed stabilizer end links produce bilateral clunking over bumps during straight-line driving. The noise disappears during hard cornering because the links are loaded (tension-quiet) during cornering and resonant over bumps during straight driving. This symptom profile specifically identifies end links versus other bushing and ball joint failures.

15. A — A load-carrying lower ball joint must be unloaded before inspection for accurate results. Placing a pry bar between the lower control arm and frame supports the arm and unloads the joint, revealing the play accurately. Wheels-hanging inspection with no unloading hides the play; rock tests don't isolate the correct motion.

16. C — When the ride height sensor linkage breaks, the module can no longer determine that corner's height. Most systems respond by refusing to command inflation rather than risk overinflating to a destructive level. The sensor must be replaced and the system calibrated before the air spring can function normally again.

17. D — A shock absorber failure does not cause the axle to shift longitudinally on the spring — shocks control damping, not axle location. Sheared center bolts, worn shackle bushings, and broken main leaves all allow axle fore-aft movement on the spring pack. This EXCEPT question tests recognition that shocks don't locate the axle.

18. B — Stabilizer end link fasteners with rubber bushings must be torqued at ride height with the suspension loaded. Torquing on a lift with wheels hanging preloads the bushings in a twisted position, accelerating wear and producing noise. Rubber-bushed suspension fasteners always require ride-height torque to preserve bushing orientation.

19. A — Torsion bar ride height adjustment must always be performed with the vehicle on the ground at curb weight so the suspension is in its normal loaded position. Adjustment on a lift with wheels hanging produces incorrect preload settings. Replacement is only needed if adjustment range is exhausted; swapping bars causes eventual fracture.

20. C — Adaptive dampers must be replaced in pairs on the same axle to maintain matched damping characteristics. Asymmetric damping (one new, one worn) cannot be compensated by the control module and produces unpredictable handling. This is standard practice for all electronically controlled damping systems including MagneRide.

21. A — When rear toe cannot be brought within specification despite full adjustment range, the rear subframe has shifted from its design position. Modern rear subframes require centering procedures using manufacturer-specified pins; once shifted, eccentric adjusters cannot reach spec. Centering the subframe is the correct repair.

22. D — Progressive ride harshness with correct tire pressure and correct ride height points to shock or strut failure — internal damper damage means they can no longer absorb energy smoothly. Bushings produce clunking and squeaks; mounts affect camber; strut mounts don't typically cause progressive ride harshness. Shock/strut replacement is indicated.

23. C — Cracked springs must be replaced immediately, and the opposite spring on the same axle must also be replaced to maintain matched spring rates. Straightening/welding and spring inserts are not manufacturer-approved repair methods. Pair replacement is standard industry practice for springs and avoids asymmetric ride characteristics.

24. B — When subframe replacement produces alignment that cannot be brought within specification, the subframe was not centered during reinstallation. Manufacturer-specified centering pins must be used during torque-down; if skipped, the subframe shifts by millimeters, making alignment uncorrectable through normal cam range.

25. A — Cross-camber of 0.8° is significant enough to produce a clear pull toward the more-positive side (the right, in this case). Individual values within tolerance don't tell the whole story — cross-camber (side-to-side difference) drives pull behavior. The pull is real and caused by camber imbalance, not road crown or toe asymmetry.

26. D — Caster imbalance produces pull toward the LESS-caster side. With left caster at +3.0° and right at +4.5°, the left has less caster, so the vehicle pulls to the left. Caster pull direction is opposite to camber pull direction. Memorize: caster pulls toward the less-caster side; camber pulls toward the more-positive side.

27. B — Excessive toe-out causes the tire to scrub inward as it rolls, producing inside-edge wear with a feathered pattern. Running a hand across the tread feels smooth in one direction and catchy in the other. This distinctive pattern — inside-edge with feathering — specifically identifies toe-out, versus camber (smooth edge wear without feathering).

28. D — Side-to-side SAI difference of 1.7° exceeds the 0.5° typical tolerance — the signature of a bent steering knuckle, usually from impact damage. SAI is built into the knuckle casting and cannot be adjusted; camber may still be within spec because it was adjusted around the damage, but the underlying bent knuckle remains.

29. C — The steering wheel must be physically centered and held in place with a steering wheel holder tool before front toe is set. Without this, the wheel position at the time of toe adjustment becomes the "baked-in" straight-ahead position, which may be off-center from the actual centered position. This produces an off-center wheel.

30. A — Thrust angle near zero (0.03° is essentially zero) confirms the rear toe settings are symmetric and the thrust line matches the geometric centerline. This means the vehicle will track straight without crabbing. Thrust angle is a rear-axle confirmation; it doesn't directly indicate setback, SAS calibration, or front toe values.

31. D — Re-centering the steering wheel during alignment invalidates the SAS's learned zero-point; SAS calibration is mandatory after this. On ADAS-equipped vehicles, the forward camera also typically requires calibration because the lane-keep system depends on accurate vehicle geometry references. Both calibrations are typically required.

32. B — Torsion beam rear suspensions typically have no rear toe adjustment. An out-of-spec reading on one side means the beam or trailing arm is bent — requiring component replacement, not adjustment. This is a classic A4 pattern: when a "fixed" suspension shows out-of-spec readings, the component itself is damaged.

33. A — Wheel runout compensation is the first step on the alignment rack, correcting for offset between the clamping device and the wheel's rotation axis. Without compensation, every measurement is offset by a fraction of a degree. Front toe adjustment, caster sweep, and road test all come after compensation during normal alignment sequence.

34. C — When a MacPherson strut vehicle has no factory camber adjustment and is out of spec, the correct actions are installing aftermarket adjustment hardware (offset bolts, slotted plates) or repairing the underlying cause (bent strut, failed mount). Leaving the reading out of spec, compensating with pressure, or swapping sides are all unacceptable approaches.

35. D — Thrust angle of +0.45° with total rear toe within specification means the left and right rear toe readings are asymmetric — one wheel toes in more than the other. The vehicle will crab because the thrust line no longer matches the geometric centerline. Rear toe must be symmetric, not just within total spec.

36. B — Speed-specific shimmy with confirmed-balanced wheels points to radial or lateral runout — dimensional deviation that balancing cannot correct. Runout must be measured with a dial indicator or road-force balancer. This is the standard diagnostic progression for speed-specific vibration: balance first, then runout.

37. A — After tire rotation, direct TPMS systems need the vehicle-specific relearn procedure to update sensor positions. Without relearn, the module continues reporting sensors at their old positions. Highway drives and battery disconnects don't reliably complete the relearn on all vehicles; sensor replacement is unnecessary when the existing sensors are functional.

38. C — Torque-to-yield axle nuts are single-use fasteners specifically designed to stretch during the first torque cycle. Reusing them cannot produce proper preload. Always install a new TTY nut and complete the full torque specification (including any specified additional rotation). Substituting generic nuts doesn't replicate the designed clamping force.

39. D — Excessive negative camber causes the inside edge of the tire to carry more load than the outside, producing smooth (flat) inside-edge wear. The absence of feathering distinguishes this from toe issues. Distinguishing smooth edge wear (camber) from feathered edge wear (toe) is one of the most tested patterns on ASE A4.

40. B — The letter "H" in a tire sidewall code is the speed rating — the maximum sustained speed the tire is rated for (H = 130 mph). The "P215" is the width, "60" is the aspect ratio, "17" is the wheel diameter in inches, and "96" is the load index. Never replace a tire with one of a lower speed rating.