ASE Suspension and Steering (A4) Practice Test (Sample)

Study Guide

Everything you need from our exam experts!

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Introduction

Preparing for a certification exam can feel overwhelming, but with the right tools, it becomes an opportunity to build confidence, sharpen your skills, and move one step closer to your goals. At Examzify, we believe that effective exam preparation isn't just about memorization, it's about understanding the material, identifying knowledge gaps, and building the test-taking strategies that lead to success.

This guide was designed to help you do exactly that.

Whether you're preparing for a licensing exam, professional certification, or entry-level qualification, this book offers structured practice to reinforce key concepts. You'll find a wide range of multiple-choice questions, each followed by clear explanations to help you understand not just the right answer, but why it's correct.

The content in this guide is based on real-world exam objectives and aligned with the types of questions and topics commonly found on official tests. It's ideal for learners who want to:

- **Practice answering questions under realistic conditions,**
- **Improve accuracy and speed,**
- **Review explanations to strengthen weak areas, and**
- **Approach the exam with greater confidence.**

We recommend using this book not as a stand-alone study tool, but alongside other resources like flashcards, textbooks, or hands-on training. For best results, we recommend working through each question, reflecting on the explanation provided, and revisiting the topics that challenge you most.

Remember: successful test preparation isn't about getting every question right the first time, it's about learning from your mistakes and improving over time. Stay focused, trust the process, and know that every page you turn brings you closer to success.

Let's begin.

How to Use This Guide

This guide is designed to help you study more effectively and approach your exam with confidence. Whether you're reviewing for the first time or doing a final refresh, here’s how to get the most out of your Examzify study guide:

1. Start with a Diagnostic Review

Skim through the questions to get a sense of what you know and what you need to focus on. Don’t worry about getting everything right, your goal is to identify knowledge gaps early.

2. Study in Short, Focused Sessions

Break your study time into manageable blocks (e.g. 30 – 45 minutes). Review a handful of questions, reflect on the explanations, and take breaks to retain information better.

3. Learn from the Explanations

After answering a question, always read the explanation, even if you got it right. It reinforces key points, corrects misunderstandings, and teaches subtle distinctions between similar answers.

4. Track Your Progress

Use bookmarks or notes (if reading digitally) to mark difficult questions. Revisit these regularly and track improvements over time.

5. Simulate the Real Exam

Once you're comfortable, try taking a full set of questions without pausing. Set a timer and simulate test-day conditions to build confidence and time management skills.

6. Repeat and Review

Don’t just study once, repetition builds retention. Re-attempt questions after a few days and revisit explanations to reinforce learning.

7. Use Other Tools

Pair this guide with other Examzify tools like flashcards, and digital practice tests to strengthen your preparation across formats.

There’s no single right way to study, but consistent, thoughtful effort always wins. Use this guide flexibly — adapt the tips above to fit your pace and learning style. You've got this!

Questions

1. Which of the following would cause toe-out-on-turns to be out of specification?

A. Bent tie rods

B. Bent steering arm

C. Bent lower control arm

D. Bent upper control arm

2. When should tire pressure ideally be checked?

A. On a hot tire

B. After the tire has been driven a minimum of three miles

C. After the tire has been driven a minimum of three minutes

D. On a cold tire

3. The front leaf springs have been replaced on a vehicle. Which of the following operations must also be performed?

A. Vehicle alignment

B. Tire rotation

C. Tire balance

D. Rear spring replacement

4. A vehicle has worn jounce bumpers. Which of the following could be the cause?

A. Leaking shocks

B. Leaking power steering pump

C. Leaking power steering gear

D. Worn strut bearings

5. Where is the most likely location for a steering wheel position sensor in a vehicle with conventional steering?

A. At the base of the steering column

B. Behind the steering wheel

C. On the steering gear box

D. Inside the steering gear box

6. The EPS light is continuously illuminated on the dash. What should the technician do?

A. Replace the EPS system

B. Connect a scan tool and access the trouble code

C. Check the battery voltage

D. Inspect the EPS fluid level

7. What is the most normal end-play specification for tapered roller front-wheel bearings?

A. 0.0001"-0.0005"

B. 0.0010"-0.0050"

C. 0.0100"-0.0500"

D. 0.1000"-0.5000"

8. What is the most likely fix for a shimmy in a four-wheel drive vehicle with oversized tires after hitting a bump?

A. Installation of a steering damper

B. Adjust the caster 2 degrees positive

C. Adjust the caster 2 degrees negative

D. Installation of a power steering cooler

9. What is adjusted to correct a vehicle that pulls to one side while driving?

A. Camber

B. Toe

C. Caster

D. Shock absorbers

10. What can cause steering axis inclination (SAI) to be out of specification?

A. A bent steering arm

B. Incorrect camber settings

C. Incorrect caster settings

D. A bent strut

Answers

1. B
2. D
3. A
4. A
5. B
6. B
7. B
8. A
9. B
10. D

Explanations

1. Which of the following would cause toe-out-on-turns to be out of specification?

A. Bent tie rods

B. Bent steering arm

C. Bent lower control arm

D. Bent upper control arm

Toe-out-on-turns is a critical alignment specification that refers to how the front wheels of a vehicle behave during a turn. Specifically, it describes how the front wheels should angle outward when the vehicle is steered. A bent steering arm can impact the angle at which the wheels turn in relation to each other. When the steering arm is bent, it alters the steering geometry, leading to one wheel possibly turning more or less than the other. This asymmetrical turn can create a situation where the toe-out-on-turns specification is affected, causing the wheels to not align correctly during turns. In contrast, while bent tie rods, lower control arms, and upper control arms can influence the overall alignment and handling of the vehicle, they do not directly affect the specific relationship required for toe-out-on-turns in the same way that a bent steering arm does. Instead, these components generally affect the position of the wheels and how they sit relative to the vehicle's centerline, rather than specifically influencing the turn angles. Thus, the bending of a steering arm is the most likely culprit in leading to a misalignment of toe-out-on-turns, making it the correct choice in this scenario.

2. When should tire pressure ideally be checked?

A. On a hot tire

B. After the tire has been driven a minimum of three miles

C. After the tire has been driven a minimum of three minutes

D. On a cold tire

Tire pressure should ideally be checked on a cold tire because this provides the most accurate reading of the tire's inflation level. A cold tire refers to one that has not been driven for several hours, allowing it to cool down to ambient temperature. Checking tire pressure when the tire is cold avoids the influence of heat generated from driving, which can cause the air inside the tire to expand and give a falsely elevated pressure reading. This practice is vital for ensuring that tires are inflated to the manufacturer's recommended pressure, which is typically indicated on a sticker located on the driver's door jamb or in the owner's manual. Maintaining correct tire pressure is essential for optimal vehicle performance, safety, fuel efficiency, and tire longevity.

3. The front leaf springs have been replaced on a vehicle. Which of the following operations must also be performed?

A. Vehicle alignment

B. Tire rotation

C. Tire balance

D. Rear spring replacement

Replacing the front leaf springs on a vehicle affects the vehicle's suspension geometry. When new springs are installed, they can change the ride height and weight distribution of the front end, which can lead to misalignment of the wheels. Proper alignment ensures that the tires wear evenly and the vehicle handles correctly. Wheel alignment involves adjusting the angles of the wheels to the manufacturer's specifications, which can include camber, caster, and toe adjustments. If the alignment is not checked and corrected after spring replacement, it can result in uneven tire wear, compromised handling, and potential safety hazards. This is why performing a vehicle alignment is a necessary follow-up operation after changing the front leaf springs.

4. A vehicle has worn jounce bumpers. Which of the following could be the cause?

A. Leaking shocks

B. Leaking power steering pump

C. Leaking power steering gear

D. Worn strut bearings

Worn jounce bumpers are often a result of ineffective shock absorbers, which can lead to excessive bottoming out of the suspension. When shocks are leaking, they lose their ability to dampen the energy from bumps and impacts on the road, which can cause the vehicle's suspension to travel further than it normally would. This increased travel can result in the jounce bumpers being compressed more than intended, leading to accelerated wear. The condition of the jounce bumper is directly related to the functioning of the shock absorbers because they work together to control the ride and handling of the vehicle. If the shocks are unable to perform adequately due to leakage, this can lead to a harsher ride and can cause the jounce bumpers to wear out more quickly from frequent contact with the suspension limits. Thus, the situation of worn jounce bumpers being linked to leaking shocks is a sound understanding of how the suspension system operates.

5. Where is the most likely location for a steering wheel position sensor in a vehicle with conventional steering?

A. At the base of the steering column

B. Behind the steering wheel

C. On the steering gear box

D. Inside the steering gear box

The most likely location for a steering wheel position sensor in a vehicle with conventional steering is behind the steering wheel. This sensor is typically integrated into the steering column assembly, allowing it to accurately detect the angle and position of the steering wheel. Positioned in this way, it can effectively relay information to the vehicle's control modules, which is critical for various systems such as electronic stability control and advanced driver assistance systems. The location behind the steering wheel ensures that the sensor has a direct line of sight to the steering wheel's movement, allowing it to provide precise data. This placement also helps protect the sensor from damage, as it's less exposed compared to other parts of the steering system. Additionally, it assists in minimizing wiring complexity and ensuring a more efficient installation process within the vehicle's interior.

6. The EPS light is continuously illuminated on the dash. What should the technician do?

A. Replace the EPS system

B. Connect a scan tool and access the trouble code

C. Check the battery voltage

D. Inspect the EPS fluid level

When the EPS (Electronic Power Steering) light is continuously illuminated on the dashboard, the most appropriate course of action is to connect a scan tool and access the trouble code. This step is critical because the EPS system is equipped with onboard diagnostics that can provide specific trouble codes related to the steering system's performance. These codes can help identify the underlying issue, whether it's related to the power steering control module, sensors, or other components. Using a scan tool allows the technician to retrieve not only the trouble codes but also any additional data that may assist in diagnosing the problem effectively. This systematic approach is essential in automotive repair, ensuring that the technician can address the issue accurately rather than making assumptions. While checking battery voltage, inspecting EPS fluid levels, or even replacing the EPS system might seem reasonable, these steps do not provide the immediate and specific insights that the diagnostic trouble codes can offer. Battery voltage checks and fluid inspections are part of broader maintenance but are not direct diagnostic steps for the illuminated EPS warning light. Replacing the EPS system can be costly and unnecessary without first confirming that the EPS system itself has failed through proper diagnostics.

7. What is the most normal end-play specification for tapered roller front-wheel bearings?

A. 0.0001"-0.0005"

B. 0.0010"-0.0050"

C. 0.0100"-0.0500"

D. 0.1000"-0.5000"

The most normal end-play specification for tapered roller front-wheel bearings typically ranges from 0.0010" to 0.0050". This specification is critical for ensuring that the bearings function correctly and efficiently under load. A properly set end-play allows for thermal expansion, maintains proper lubrication, and minimizes the risk of overheating and premature wear. In this range, the end-play is tight enough to prevent excessive movement, which can lead to increased wear and failure, but also provides enough clearance to account for any thermal expansion and allows the bearings to operate smoothly. This balance is essential for the overall performance, handling, and safety of the vehicle. Other options listed either represent too little or too much end-play, which does not align with typical specifications established for quality vehicular performance. The correct answer, therefore, reflects industry standards that ensure effective functionality and longevity of the bearing system in vehicles.

8. What is the most likely fix for a shimmy in a four-wheel drive vehicle with oversized tires after hitting a bump?

A. Installation of a steering damper

B. Adjust the caster 2 degrees positive

C. Adjust the caster 2 degrees negative

D. Installation of a power steering cooler

A shimmy in a four-wheel drive vehicle with oversized tires, especially after hitting a bump, is often due to issues with steering stability and vibrations that can be amplified by the larger tires. The installation of a steering damper is a common fix for this situation because it effectively reduces the oscillation in the steering mechanism that can lead to a shimmy. The steering damper, similar to a shock absorber, helps to absorb the shock from road irregularities and reduces the tendency of the steering to oscillate or "shake" after a bump, particularly when large tires are involved. This allows for a more controlled steering feel and can enhance overall stability in the vehicle's handling, which is crucial when driving off-road or on uneven surfaces. Adjustments in caster, whether positive or negative, can impact the handling and stability of the vehicle but may not directly resolve the issue of shimmying caused by hitting a bump. While caster adjustments can improve straight-line tracking and turn-in response, they typically require more careful setup and might not address immediate symptoms of shimmy caused by tire and wheel forces. Installing a power steering cooler generally pertains to ensuring proper temperature levels in the steering system to reduce the risk of overheating, but it does not address the immediate

9. What is adjusted to correct a vehicle that pulls to one side while driving?

A. Camber

B. Toe

C. Caster

D. Shock absorbers

When a vehicle pulls to one side while driving, the adjustment that is typically made is to the toe alignment. The toe refers to the angle of the wheels in relation to the centerline of the vehicle when viewed from above. If the wheels are misaligned in this respect—either pointing inwards or outwards—this can cause the vehicle to pull toward one side. Adjusting the toe settings can help ensure that both front wheels are aligned in the same direction, which allows for more stable and straight driving. Proper toe alignment minimizes scrubbing of the tires and optimizes steering response and handling characteristics, thereby addressing the pulling issue effectively. While camber and caster also play crucial roles in vehicle alignment, their primary impacts are different. Camber affects the tilt of the wheels when viewed from the front, which influences cornering performance rather than straight-line pulling. Caster involves the angle of the steering axis and plays a role in steering stability and returnability but does not directly correct lateral pull. Shock absorbers, while important for managing ride quality and handling, do not affect wheel alignment and thus do not correct pulling issues.

10. What can cause steering axis inclination (SAI) to be out of specification?

A. A bent steering arm

B. Incorrect camber settings

C. Incorrect caster settings

D. A bent strut

Steering axis inclination (SAI) refers to the angle formed between the steering axis and vertical when viewed from the front of the vehicle. This angle is crucial for proper steering response and vehicle stability. A bent strut can significantly impact SAI. When a strut is bent, it alters the geometry of the suspension and can misalign the steering axis, pushing it out of its specified angle. This misalignment directly affects how the wheel contacts the road and can lead to uneven tire wear, handling issues, and instability, which are all critical to address for safe vehicle operation. While a bent steering arm can also affect alignment, the option specifically relates to SAI being out of specification due to changes in the strut's position affecting the overall alignment geometry more directly. Similarly, incorrect camber and caster settings do not alter SAI on their own as they influence different angles in the suspension system rather than the inclination directly.

Next Steps

Congratulations on reaching the final section of this guide. You've taken a meaningful step toward passing your certification exam and advancing your career.

As you continue preparing, remember that consistent practice, review, and self-reflection are key to success. Make time to revisit difficult topics, simulate exam conditions, and track your progress along the way.

If you need help, have suggestions, or want to share feedback, we'd love to hear from you. Reach out to our team at hello@examzify.com.

Or visit your dedicated course page for more study tools and resources:

https://asesuspensionandsteering-a4.examzify.com

We wish you the very best on your exam journey. You've got this!