Landing Gear and Brakes Practice Test (Sample)

Study Guide

Everything you need from our exam experts!

Table of Contents

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. 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.

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. 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. What items should be checked on the landing gear tires during a preflight inspection?

A. Tread wear, cuts, bulges, sidewall damage, proper inflation pressure, valve stem condition, and wheel bead seating.

B. Color of the tire.

C. Brake pad material.

D. Tire pressure measurement only.

2. How do you know that the parking brake is set?

A. An ON light illuminates on the EMER/PRKG BRAKE light

B. A green gauge shows PARK on the flight deck

C. The brake pedal becomes firm

D. The landing gear indicator shows PARK

3. The Main Landing Gear (MLG) is held in the up and locked position by which component?

A. A mechanical uplock

B. An electric latch

C. A hydraulic lock

D. A pneumatic pin

4. What checks are performed during a post-maintenance gear cycle test?

A. Verify full range of motion, door operation, uplock engagement, proper indication statuses, absence of leaks, and audible/minor abnormal noises.

B. Only verify that the gear doors close.

C. Check the temperature of the brake fluid.

D. Verify wheel nut torque only.

5. What is the difference between disc brakes and drum brakes in typical aircraft usage?

A. Drum brakes provide higher heat capacity.

B. Disc brakes lose heat capacity.

C. Disc brakes with calipers are common on modern jets for higher heat capacity and better performance; drum brakes are less common on large aircraft but used on some light aircraft.

D. Disc brakes and drum brakes are identical in function.

6. Where is the red guarded steering switch located?

A. On the forward ramp panel

B. On the cockpit floor

C. On the nose landing gear strut

D. In the overhead panel

7. What conditions must be met for the autobrakes to engage during a rejected takeoff?

A. Thrust Levers IDLE or REV, wheelspeed above 60 kt, and brake pedals not pressed

B. Thrust Levers at MAX, wheelspeed below 10 kt

C. Thrust Levers IDLE, wheelspeed above 100 kt, and brake pedals pressed

D. Thrust Levers at MID, wheelspeed below 20 kt

8. Which action disengages the rudder pedal steering?

A. Activation of the nosewheel steering

B. Releasing the steering wheel

C. Applying rudder pedal rapidly

D. Turning off power to the hydraulic system

9. In a Brake by Wire system, which component sends brake requests to the Brake Control Module?

A. Pedal position transducers

B. Hydraulic pressure sensors

C. Wheel speed sensors

D. Master cylinder

10. Under what wheel-speed condition does anti-skid operate to reduce brake pressure?

A. Below 10 knots

B. Above 50 knots

C. At 0 knots

D. Between 10 and 50 knots

Answers

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

Explanations

1. What items should be checked on the landing gear tires during a preflight inspection?

A. Tread wear, cuts, bulges, sidewall damage, proper inflation pressure, valve stem condition, and wheel bead seating.

B. Color of the tire.

C. Brake pad material.

D. Tire pressure measurement only.

During a preflight, the goal is to confirm the tire's condition and its ability to hold air under load, so you inspect both wear/damage signs and the inflation setup. The best choice covers all the critical checks: tread wear, cuts, bulges, and sidewall damage to catch any ongoing or potential failures; proper inflation pressure to ensure the tire can carry the load without overheating or blowing out; valve stem condition to detect leaks or cracks; and wheel bead seating to ensure the tire is properly sealed to the wheel and won't lose air or move during operation. This combination addresses both visible damage and attachment integrity, which are essential for safe operation. Color of the tire doesn't indicate safety or condition, brake pad material is unrelated to the tire itself, and checking tire pressure alone misses visible damage and bead seating issues.

2. How do you know that the parking brake is set?

A. An ON light illuminates on the EMER/PRKG BRAKE light

B. A green gauge shows PARK on the flight deck

C. The brake pedal becomes firm

D. The landing gear indicator shows PARK

When the parking brake is set, a dedicated warning light comes ON—the EMER/PRKG BRAKE indicator. This specific light is built to give an immediate, unambiguous cue that the parking brake is applied, regardless of what else is happening in the hydraulic system or how the pedals feel. It's the most reliable indicator because it's intentionally designed to signal brake status directly. Relying on a green gauge showing PARK isn't as dependable because that type of readout isn't a universal or standardized signal for parking brake status across different aircraft. The landing gear indicator showing PARK doesn't reflect brake status at all—it tells you about gear position, not whether the brakes are engaged. A brake pedal feeling firm can occur for various reasons and isn't a consistent indicator of the parking brake state, so it's not a reliable cue on its own.

3. The Main Landing Gear (MLG) is held in the up and locked position by which component?

A. A mechanical uplock

B. An electric latch

C. A hydraulic lock

D. A pneumatic pin

The main idea is that the MLG is secured in the stowed position by a mechanical uplock. As the gear retracts, a spring-loaded latch on the uplock engages a strike on the gear leg, physically locking the leg and preventing it from dropping back down under load. This mechanical connection provides a robust, fail-safe hold that doesn't depend on hydraulic pressure or electrical power, which is crucial for keeping the gear safely retracted in flight. When the gear is commanded to extend, the release mechanism disengages the uplock so the hydraulic actuators can lower the gear. Electric latches and hydraulic locks aren't the primary means of keeping the gear up in most systems, and pneumatic pins aren't the typical method for locking the MLG in the up position.

4. What checks are performed during a post-maintenance gear cycle test?

A. Verify full range of motion, door operation, uplock engagement, proper indication statuses, absence of leaks, and audible/minor abnormal noises.

B. Only verify that the gear doors close.

C. Check the temperature of the brake fluid.

D. Verify wheel nut torque only.

A post-maintenance gear cycle test checks that the landing gear system operates correctly through its full extend/retract cycle and that all related safety and indication features are functioning. This means confirming the gear can move through its full range without binding, interference, or unexpected resistance, and that the doors open and close in sync with the gear position. It also verifies that the uplock engages properly so the gear stays securely in the retracted position, and that the cockpit and any ground indicators accurately reflect the gear's actual state. Another essential part is looking for any hydraulic leaks or fluid loss in the gear system, plus listening for abnormal noises that could signal mechanical or hydraulic issues. Choosing this all-encompassing check is why the answer is best: it covers mechanical movement, door operation, proper locking, correct indication of gear status, presence of leaks, and potential abnormal sounds. Verifying only one aspect, like doors, or something unrelated like brake fluid temperature or wheel nut torque, would miss critical failures that could compromise gear extension/retraction or retraction locking.

5. What is the difference between disc brakes and drum brakes in typical aircraft usage?

A. Drum brakes provide higher heat capacity.

B. Disc brakes lose heat capacity.

C. Disc brakes with calipers are common on modern jets for higher heat capacity and better performance; drum brakes are less common on large aircraft but used on some light aircraft.

D. Disc brakes and drum brakes are identical in function.

The main idea here is how brake design affects heat management and where each type is used in aircraft. Disc brakes, with a rotor and calipers, expose a large, thin surface area to airflow. This lets heat escape more efficiently, so they can absorb more braking energy and maintain performance during repeated stops without fading. That high heat capacity and reliable performance are especially important for modern jets that require strong, repeatable braking at high speeds and loads. Drums brake systems enclose the braking surfaces inside a drum and use shoes pressing outward against the interior. Heat builds up inside the enclosed drum, and cooling is limited, which makes fade more likely during heavy or repeated braking. Because of this, drum brakes are less common on large aircraft but are still seen on some light aircraft where the braking demands are lower and the simpler, cheaper drum design can be advantageous. So the best answer states that disc brakes with calipers are common on modern jets for higher heat capacity and better performance, while drum brakes are less common on large aircraft but used on some light aircraft. The idea that disc brakes lose heat capacity or that both types are identical in function isn't accurate.

6. Where is the red guarded steering switch located?

A. On the forward ramp panel

B. On the cockpit floor

C. On the nose landing gear strut

D. In the overhead panel

The test is about where a safety-controlled steering interlock switch is placed for ground operations. The red guarded switch is located on the forward ramp panel because that's where ground crew interact with the aircraft during pushback, tow, and boarding. Its guard feature requires a deliberate action to operate, preventing accidental steering activation while people are around the aircraft or during loading and unloading. Placing this switch in the cockpit floor or overhead panel would be out of reach for ramp personnel and could allow unintended steering inputs, while putting it on the nose gear strut isn't practical or safe. The forward ramp panel location is the practical, accessible, and protected spot for this safety control.

7. What conditions must be met for the autobrakes to engage during a rejected takeoff?

A. Thrust Levers IDLE or REV, wheelspeed above 60 kt, and brake pedals not pressed

B. Thrust Levers at MAX, wheelspeed below 10 kt

C. Thrust Levers IDLE, wheelspeed above 100 kt, and brake pedals pressed

D. Thrust Levers at MID, wheelspeed below 20 kt

Autobrakes are intended to take over braking automatically when a takeoff is rejected, to bring the airplane to a controlled stop. For this to happen, the engines must be in a state where they aren't contributing forward thrust, the aircraft must be moving fast enough to allow effective braking, and the crew must not be manually applying the brakes. Specifically, the thrust levers need to be at IDLE or in reverse so there's no thrust fighting the brakes, the wheels must be turning faster than about 60 knots so the system can sense and control the deceleration, and the brake pedals must not be pressed, otherwise manual braking overrides or disables the autobrake. That combination exactly matches the conditions described, making it the correct answer.

8. Which action disengages the rudder pedal steering?

A. Activation of the nosewheel steering

B. Releasing the steering wheel

C. Applying rudder pedal rapidly

D. Turning off power to the hydraulic system

On the ground, nosewheel steering is often controlled separately from the rudder pedals. When nosewheel steering is activated, the steering system switches control away from the rudder pedals to the nosewheel steering mechanism. This prevents conflicting inputs and ensures the nosewheel follows the tiller or wheel command instead of the rudder pedals. So activating the nosewheel steering disengages the rudder pedal steering by design, allowing steering to be driven by the nosewheel system. Releasing the steering wheel doesn't switch modes, and rapidly applying the rudder pedals changes yaw but doesn't disable the pedal steering. Turning off power to the hydraulic system could affect steering capability, but the specific disengagement mechanism described is the activation of nosewheel steering.

9. In a Brake by Wire system, which component sends brake requests to the Brake Control Module?

A. Pedal position transducers

B. Hydraulic pressure sensors

C. Wheel speed sensors

D. Master cylinder

Brake-by-wire uses an electronic signal to request braking rather than a direct mechanical link. The pedal position transducer measures how far the pedal is pressed and sends that information to the Brake Control Module. The BCM then interprets this input as the driver's braking intent and commands the hydraulic brake actuators to apply the appropriate braking force. Hydraulic pressure sensors and wheel speed sensors provide data for control and safety, but they do not initiate the brake request themselves. In this system, the master cylinder isn't the source of the brake request; braking is driven by the BCM's commands derived from the pedal position signal.

10. Under what wheel-speed condition does anti-skid operate to reduce brake pressure?

A. Below 10 knots

B. Above 50 knots

C. At 0 knots

D. Between 10 and 50 knots

Anti-skid braking relies on wheel-speed sensors to prevent tire skid by modulating brake pressure when the wheel is about to lose traction. The risk of a skid is highest when wheels are turning slowly, because a small amount of braking force can stop a wheel from revolving while the aircraft is still moving. In that low-speed regime, the system automatically reduces brake pressure to let the wheel regain rotation and then can reapply braking as needed. This low-wheel-speed condition—around when the wheel speed falls below about 10 knots—is when anti-skid actively intervenes to prevent lockup.

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://landinggearbrakes.examzify.com

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