AIRCRAFT LANDING GEAR SYSTEMS PRACTICE TEST (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

VISIT US ONLINE FOR THE FULL VERSION STUDY GUIDE

https://aircraftlandinggearsystems.examzify.com

Copyright © 2026 by Examzify - A Kaluba Technologies Inc. product.

ALL RIGHTS RESERVED.

No part of this book may be reproduced or transferred in any form or by any means, graphic, electronic, or mechanical, including photocopying, recording, web distribution, taping, or by any information storage retrieval system, without the written permission of the author.

Notice: Examzify makes every reasonable effort to obtain accurate, complete, and timely information about this product from reliable sources.

SAMPLE

Table of Contents

Copyright 1

Table of Contents 2

Introduction 3

How to Use This Guide 4

Questions 5

Answers 8

Explanations 10

Next Steps 15

SAMPLE

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.

SAMPLE

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!

SAMPLE

Questions

SAMPLE

1. Which mode restriction helps prevent accidental gear retraction during flight?

A. Flight mode restricts gear movement to avoid retraction during flight

B. Ground mode locks wheel brakes

C. Flight mode disables steering

D. Ground mode vents hydraulic pressure

2. Why is proper tire inflation critical for landing gear performance?

A. It ensures even load distribution.

B. It improves fuel efficiency in cruise.

C. It reduces the need for braking capacity.

D. It eliminates tire wear completely.

3. Which safety measure helps prevent the aircraft from moving during landing gear maintenance?

A. Wheel chocks

B. De-energize hydraulics

C. Follow lockout/tagout procedures

D. Wear PPE

4. Is there a limit on the number of times an aircraft tire can be retreaded?

A. Is not

B. Is

C. Has a limit

D. Requires approval

5. What visual cue in the cockpit confirms the landing gear is down and locked?

A. A blue cabin alert light.

B. A red nose gear warning light.

C. A white strobe on the gear door.

D. A green down-and-locked indication and corresponding gear-position switches or indicators.

SAMPLE

6. What role does valve timing play in coordinating multiple main gear actuators?

A. It regulates hydraulic temperature in the system.

B. It changes the pilot's manual control input for extension.

C. It helps balance movement by coordinating actuator timing.

D. It provides electrical signaling for gear position.

7. Most small general-aviation aircraft are equipped with_____ brakes.

A. Single-disc

B. Dual-disc

C. Triple-disc

D. Hydraulic diaphragm

8. All retractable landing gear systems must have some means of _____ the gear if the primary method fails.

A. Lowering

B. Raising

C. Locking

D. Stowing

9. What is the function of wheel speed sensors in the landing gear/braking system?

A. They provide wheel speeds to anti-skid and autobrake systems and can feed data for gear status indications.

B. They measure airspeed to adjust landing gear retraction.

C. They detect gear position for landing gear doors only.

D. They supply hydraulic pressure to wheel brakes.

10. Aircraft bearings should not be cleaned with steam.

A. Should not

B. Should be cleaned with steam

C. Should be cleaned with water

D. No cleaning restrictions

SAMPLE

Answers

SAMPLE

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

SAMPLE

Explanations

SAMPLE

1. Which mode restriction helps prevent accidental gear retraction during flight?

A. Flight mode restricts gear movement to avoid retraction during flight

B. Ground mode locks wheel brakes

C. Flight mode disables steering

D. Ground mode vents hydraulic pressure

Mode-based safety interlocks control when gear can move. In flight, the system enforces a restriction that blocks gear retraction, so a retract command can't be executed accidentally while airborne. This keeps the gear from changing position during critical flight conditions and ensures retraction only happens in the safe, proper phase (typically when the aircraft is on the ground and the system permits it). The other options don't address gear movement during flight: locking wheel brakes is a braking function, disabling steering affects steering, and venting hydraulic pressure in ground mode isn't about preventing gear retraction in flight.

2. Why is proper tire inflation critical for landing gear performance?

A. It ensures even load distribution.

B. It improves fuel efficiency in cruise.

C. It reduces the need for braking capacity.

D. It eliminates tire wear completely.

Proper tire inflation ensures even load distribution across the landing gear tires. When the tires are at the correct pressure, the aircraft's weight on touchdown and during rollout is shared by each tire as designed, keeping the contact patches and load paths balanced. If inflation is too low, the tire flexes more, increasing heat and causing uneven wear because some parts of the tire take more load than others; this raises the risk of overheating, tire damage, or blowouts and can distort braking effectiveness. If inflation is too high, the contact patch becomes smaller and load concentrates in the center, reducing grip and leading to uneven wear and reduced braking performance. Maintaining the recommended pressure keeps the tires within their designed load-carrying capability, ensures predictable braking and stability, and protects the tires and gear from damage due to uneven loading.

3. Which safety measure helps prevent the aircraft from moving during landing gear maintenance?

A. Wheel chocks

B. De-energize hydraulics

C. Follow lockout/tagout procedures

D. Wear PPE

Preventing movement during landing gear maintenance relies on a solid physical restraint. Wheel chocks are wedges placed against the wheels to stop them from rolling. When positioned on the ground on both sides of the tire, they create a direct barrier to any tendency of the aircraft to move, even if hydraulic systems or brakes are released or if the gear is being jacked up. That direct, mechanical stop is why wheel chocks are the most effective safety measure for keeping the aircraft stationary during maintenance. The other measures contribute to safety in related ways but don't provide the same guaranteed prevention of movement. De-energizing hydraulics reduces the risk of unintended gear actuation or other hydraulic movements. Lockout/tagout procedures ensure energy sources cannot be re-energized during work, preventing accidental startup of systems. Wearing personal protective equipment protects the technician from hazards encountered during maintenance.

SAMPLE

4. Is there a limit on the number of times an aircraft tire can be retreaded?

A. Is not

B. Is

C. Has a limit

D. Requires approval

Retreadability depends on the tire's condition, not on a fixed count. An aircraft tire can be retreaded as long as, after each retread, it still meets the retread acceptance criteria and the manufacturer's and aviation authority's requirements. There isn't a universal numerical limit on how many times a tire can be retreaded; the decision to retread next is based on inspection results and safety standards. In practice, the process is repeated while the tire remains serviceable, handled by approved facilities and following approved procedures. The other options imply a specific cap, an extra approval step, or are too vague, so they don't capture the standard approach as well as saying there isn't a preset limit.

5. What visual cue in the cockpit confirms the landing gear is down and locked?

A. A blue cabin alert light.

B. A red nose gear warning light.

C. A white strobe on the gear door.

D. A green down-and-locked indication and corresponding gear-position switches or indicators.

The key concept is that a clear cockpit indication confirms both the gear is extended and the latches are locked. The green color used for a down-and-locked indication, combined with the gear-position switches or indicators, provides a direct, unambiguous signal that the gear is fully down and securely locked. This is what pilots rely on during approach and landing to verify the gear status without doubt. A green down-and-locked signal is standard because green is the visual cue for a safe, confirmed condition, and the associated switches or indicators give redundancy and a definite status readout. In contrast, a blue cabin alert light is typically used for non-gear cabin warnings, not the actual gear status. A red nose gear warning light signals an abnormal condition or fault, not a confirmed safe state. A white strobe on the gear door is an exterior lighting feature for visibility and does not convey cockpit gear status.

6. What role does valve timing play in coordinating multiple main gear actuators?

A. It regulates hydraulic temperature in the system.

B. It changes the pilot's manual control input for extension.

C. It helps balance movement by coordinating actuator timing.

D. It provides electrical signaling for gear position.

Valve timing in a hydraulic landing gear system sets how and when fluid is sent to each main gear actuator, so multiple actuators move in concert. When several legs must extend or retract together, coordinated timing keeps their movements balanced, preventing one leg from extending ahead of the others and avoiding misalignment or undue stress on the gear structure. This synchronized control allows smooth, reliable deployment and retraction with proper sequencing of doors and locking mechanisms. The other options describe functions that aren't performed by valve timing: regulating hydraulic temperature, altering pilot input for extension, or providing electrical signals for gear position.

SAMPLE

7. Most small general-aviation aircraft are equipped with_____ brakes.

A. Single-disc

B. Dual-disc

C. Triple-disc

D. Hydraulic diaphragm

Small general-aviation airplanes typically use a single-disc brake on each main wheel. This arrangement provides enough stopping power for normal light-aircraft operations while keeping weight, cost, and maintenance simple. Adding more discs would increase weight and complexity without a proportional benefit for most missions, and heat management becomes more of a concern in larger or higher-performance aircraft. The term hydraulic diaphragm involves a hydraulic component type, not the number of braking discs, so it doesn't describe the brake setup used on most light airplanes.

8. All retractable landing gear systems must have some means of _____ the gear if the primary method fails.

A. Lowering

B. Raising

C. Locking

D. Stowing

Redundancy in gear extension is the key idea. Retractable landing gear must have a backup way to bring the gear down if the primary method (usually hydraulic or electrical) fails, so the aircraft can land safely. This backup mechanism is all about lowering the gear from the up position to the down and locked position, ensuring the wheels are deployed for touchdown. Without a means to lower the gear by another method, a safe landing could be impossible in an electrical or hydraulic failure. Lowering is the best answer because it describes the action of moving the gear into the down position. The other options describe different actions that don't fulfill the requirement: raising would move toward up, locking is about securing the gear once it's in place, and stowing is retraction into the wheel wells.

9. What is the function of wheel speed sensors in the landing gear/braking system?

A. They provide wheel speeds to anti-skid and autobrake systems and can feed data for gear status indications.

B. They measure airspeed to adjust landing gear retraction.

C. They detect gear position for landing gear doors only.

D. They supply hydraulic pressure to wheel brakes.

Wheel speed sensors deliver real-time rotation data for each wheel, which is essential for braking control. The anti-skid system uses these wheel speeds to detect that a wheel is about to skid (rapidly slowing while others keep turning) and immediately modulates brake pressure to prevent wheel lock while maintaining steerability. The autobrake system also relies on wheel speed information to control braking force and achieve a desired deceleration profile during landing or an aborted takeoff. In addition, the wheel speed signals can feed cockpit indicators or gear-status logic to help confirm gear and wheel conditions (such as whether the wheels are rotating after touchdown or provide related status information). They do not measure airspeed (that's done by the air data system), they do not determine gear position for door operation (that uses gear position sensors), and they do not supply hydraulic pressure to brakes (that's handled by the hydraulic braking system and valves).

SAMPLE

10. Aircraft bearings should not be cleaned with steam.

A. Should not

B. Should be cleaned with steam

C. Should be cleaned with water

D. No cleaning restrictions

Steam cleaning is avoided for aircraft bearings because the combination of heat and moisture can cause several problems critical to bearing life. The high temperature of steam can degrade or break down lubricants, alter grease consistency, and even affect bearing fits through uneven expansion. The moisture carried by steam can infiltrate seals and entry paths, promote corrosion of races and balls, and wash away or dilute lubricants that should remain in the bearing clearance. Residual water and contaminants can also be driven into tight spaces, increasing the risk of pitting, scoring, and premature wear. Safer cleaning methods focus on removing oils and contaminants without introducing heat or moisture. Approved solvents or degreasers that don't leave residues, followed by thorough drying with compressed air, are typical approaches before re-lubrication with the correct lubricant. This keeps bearings clean and dry, preserving lubrication, protecting tolerances, and reducing the chance of corrosion or damage.

SAMPLE

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://aircraftlandinggearsystems.examzify.com

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

SAMPLE