

# FAA Helicopter Flying Handbook 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. 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

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- 1. Which value is obtained by correcting indicated airspeed for instrument and installation errors?**
  - A. Indicated Airspeed**
  - B. Calibrated Airspeed (CAS)**
  - C. True Airspeed**
  - D. Equivalent Airspeed**
  
- 2. Hovering out of ground effect requires more power due to increased which drag component?**
  - A. Induced Drag Increases**
  - B. Parasite Drag Increases**
  - C. Profile Drag Decreases**
  - D. None**
  
- 3. What is the rearward edge of an airfoil called?**
  - A. Trailing Edge**
  - B. Leading Edge**
  - C. Camber Line**
  - D. Chord Line**
  
- 4. Which phenomenon describes stall near the tip due to dissymmetry of lift?**
  - A. Retreating Blade Stall**
  - B. Advancing Blade Stall**
  - C. Tip Stall**
  - D. Induced Stall**
  
- 5. Which term describes the rotor condition when rotor force has been removed or when the rotor is operating under low or negative G?**
  - A. Unloaded Rotor**
  - B. Loaded Rotor**
  - C. Free Rotor**
  - D. Hovering Rotor**

- 6. Which part of the blade attaches to the blade grip?**
- A. Blade Root**
  - B. Blade Tip**
  - C. Blade Stall**
  - D. Blade Flap**
- 7. What term defines the sum of the basic empty weight and the useful load?**
- A. Gross Weight**
  - B. Payload**
  - C. Maximum Takeoff Weight**
  - D. Basic Empty Weight**
- 8. Which device limits rotor blade flap at low rotor speed or when the rotor is stopped?**
- A. Static Stop**
  - B. Dynamic Stop**
  - C. Rotor Lock**
  - D. Blade Stop**
- 9. The power control on the end of the collective control is called what?**
- A. Twist Grip**
  - B. Throttle**
  - C. Pedals**
  - D. Cyclic Stick**
- 10. What FAA directive is issued to notify concerned parties of an unsafe condition and describe the corrective action?**
- A. Airworthiness Directive**
  - B. Agonic Line**
  - C. Altimeter**
  - D. Angle of Attack**

## Answers

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

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## **Explanations**

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1. Which value is obtained by correcting indicated airspeed for instrument and installation errors?

- A. Indicated Airspeed
- B. Calibrated Airspeed (CAS)**
- C. True Airspeed
- D. Equivalent Airspeed

Calibrated Airspeed is obtained by correcting indicated airspeed for instrument and installation errors. The airspeed indicator reads a value based on dynamic pressure, but that reading can be biased by calibration and mounting errors. Applying the instrument and installation corrections removes those biases, giving a speed that reflects the actual dynamic pressure without instrument faults. True Airspeed and Equivalent Airspeed require additional corrections for air density and compressibility, respectively, beyond just instrument corrections.

2. Hovering out of ground effect requires more power due to increased which drag component?

- A. Induced Drag Increases**
- B. Parasite Drag Increases
- C. Profile Drag Decreases
- D. None

Induced drag is what increases when you hover out of ground effect. When you generate lift, the rotor creates a downward flow of air (downwash). In ground effect, the nearby surface helps straighten and redirect this flow, which lowers the induced velocity and reduces the amount of induced drag, making hovering more efficient. Once you move out of that effect, the ground no longer assists the airflow, so the rotor has to produce the same lift with a stronger downward acceleration of air. That higher induced velocity increases induced drag, so more power is required to hover. Parasite drag is not the main contributor in a hover at low airspeeds, and profile drag doesn't explain the increased power here.

3. What is the rearward edge of an airfoil called?

- A. Trailing Edge**
- B. Leading Edge
- C. Camber Line
- D. Chord Line

The rearward edge is the trailing edge. It's the back end of the airfoil where the upper and lower surfaces come together and the airflow leaves the profile. The other terms describe different parts: the leading edge is the front edge that first meets the air, the camber line is the curve that runs between the upper and lower surfaces and defines the airfoil's curvature, and the chord line is a straight line drawn from the leading edge to the trailing edge used as a reference for measurements like angle of attack.

**4. Which phenomenon describes stall near the tip due to dissymmetry of lift?**

- A. Retreating Blade Stall**
- B. Advancing Blade Stall**
- C. Tip Stall**
- D. Induced Stall**

Dissymmetry of lift in forward flight means the rotor does not produce equal lift on the two halves of the disk—the advancing blade tends to have more lift than the retreating blade. As forward speed increases, the retreating blade's relative wind is slower, and its angle of attack toward the tip can reach the critical point first. That combination makes the tip region of the retreating blade stall, which is the classic retreating blade stall scenario. The other terms don't describe this specific situation: stall on the advancing blade is different and not the typical tip-area effect caused by lift dissymmetry; tip stall without tying it to dissymmetry isn't the same phenomenon; induced stall isn't the rotor-specific term for this condition.

**5. Which term describes the rotor condition when rotor force has been removed or when the rotor is operating under low or negative G?**

- A. Unloaded Rotor**
- B. Loaded Rotor**
- C. Free Rotor**
- D. Hovering Rotor**

Unloaded rotor describes the rotor condition when the rotor is not producing lift to support the aircraft's weight. This happens when rotor force is removed or the aircraft experiences low or negative G, so the rotor isn't required to carry load. In this state, the lift demand on the rotor is essentially zero, unlike a loaded rotor which is bearing the weight, or a hovering rotor which is actively lifting to hold a hover. A free rotor, on the other hand, refers to a rotor that is not driven by the engine and free to coast, which is a different situation. So the term that fits the described condition is unloaded rotor.

**6. Which part of the blade attaches to the blade grip?**

- A. Blade Root**
- B. Blade Tip**
- C. Blade Stall**
- D. Blade Flap**

The part that attaches to the blade grip is the blade root. The root is the section of the blade that sits near the hub and is engineered to mate with the blade grip, transferring the aerodynamic loads from the blade into the rotor head. It provides the secure connection and structural interface that allows the blade to be clamped or bolted to the hub while still permitting the blade to pivot with the hub. The tip is simply the far end of the blade, not involved in attaching to the hub. Blade stall is an aerodynamic condition that can occur on the blade, and blade flap describes how the blade moves about its hinge, not a connection point. Therefore, the blade root is the correct part that attaches to the blade grip.

**7. What term defines the sum of the basic empty weight and the useful load?**

- A. Gross Weight**
- B. Payload**
- C. Maximum Takeoff Weight**
- D. Basic Empty Weight**

The main idea is how total aircraft weight is built from its parts. The gross weight is the total weight of the helicopter at a given moment, and it comes from adding the basic empty weight to the useful load. The basic empty weight is the helicopter's weight with standard equipment and fixed fluids, but without any usable fuel or payload. The useful load is the weight that can be added to the aircraft for flight, which includes the payload (people, baggage, cargo) plus usable fuel. So when you take the basic empty weight and add the useful load, you get the gross weight. This is different from maximum takeoff weight, which is simply the allowable limit, not the actual sum at a given time.

**8. Which device limits rotor blade flap at low rotor speed or when the rotor is stopped?**

- A. Static Stop**
- B. Dynamic Stop**
- C. Rotor Lock**
- D. Blade Stop**

Limiting blade flap at low rotor speed or when the rotor is stopped is accomplished by a static stop. This fixed mechanical stop is built into the rotor hub or blade root to prevent the blade from flapping beyond safe travel when there isn't enough centrifugal force to counteract gravity. It acts as a hard, unmoving barrier during low-speed conditions, protecting the blade and hub during starting, idling, or autorotation entries. In contrast, a dynamic stop engages only when the rotor is turning and speed-related forces come into play to limit flap at higher RPM, helping prevent flutter and overtravel during flight. Rotor lock is a maintenance device used to immobilize the rotor, not a normal flight-limit device. Blade stop isn't the standard term used for this specific low-speed limitation.

**9. The power control on the end of the collective control is called what?**

- A. Twist Grip**
- B. Throttle**
- C. Pedals**
- D. Cyclic Stick**

The twist grip is the power control at the end of the collective. In many light helicopters with a piston engine, engine power is adjusted with a throttle device located right at the end of the collective grip. This lets you change engine RPM and overall power without taking your hand off the collective, which is essential for maintaining rotor speed (NR) during hover, takeoffs, and transitions. As you increase or decrease power with the twist grip, you help keep rotor RPM within the proper range to avoid over- or under-torque conditions. The other controls—cyclic for flight path, pedals for yaw, and the collective for pitch/lift—do not adjust engine power, which is why this end-of-collective control is specifically identified as the twist grip.

**10. What FAA directive is issued to notify concerned parties of an unsafe condition and describe the corrective action?**

**A. Airworthiness Directive**

**B. Agonic Line**

**C. Altimeter**

**D. Angle of Attack**

An Airworthiness Directive is an FAA-issued directive that announces an unsafe condition in an aircraft, engine, propeller, or appliance and prescribes mandatory corrective actions. It ensures all affected operators are informed and required actions are taken to restore safety, typically detailing the unsafe condition, its potential consequences, the models or serial numbers affected, and the specific steps needed—such as inspections, modifications, replacements, or operating restrictions—with defined compliance times. These directives are issued to notify concerned parties, including aircraft owners, operators, and maintenance personnel, and become legally enforceable for all affected equipment. The other terms—an agonic line related to compass variation, an altimeter as an altitude-reading instrument, and angle of attack related to flight dynamics—do not convey a mandatory corrective action to address an unsafe condition.

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## 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](mailto:hello@examzify.com).**

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

**<https://faahelicopterflyinghb.examzify.com>**

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

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