

CESSNA 172 SYSTEMS PRACTICE TEST (SAMPLE)

STUDY GUIDE



**SAMPLE STUDY GUIDE
WITH LIMITED QUESTIONS**

**VISIT US ONLINE FOR
THE FULL VERSION STUDY GUIDE**

<https://cessna172systems.examzify.com>



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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. What are the primary flight controls in a Cessna 172?**
 - A. Ailerons, Rudder, Elevator
 - B. Flaps, Spoilers, Rudder
 - C. Elevator, Ailerons, Trim
 - D. Rudder, Flaps, Elevator
- 2. What component in the L2A designation is responsible for fuel injection?**
 - A. Magnetos
 - B. Fuel Pump
 - C. Vacuum Pump
 - D. Fuel Flow Oil Filter
- 3. What is the main function of the Cessna 172's vacuum system?**
 - A. To operate the landing gear
 - B. To provide cabin pressure
 - C. To operate the gyroscopic instruments
 - D. To control fuel flow
- 4. Which system provides navigation capability in a Cessna 172?**
 - A. Fuel management system
 - B. Electrical system
 - C. Avionics system
 - D. Hydraulic system
- 5. How often should oil be changed in a Cessna 172?**
 - A. Every 25 flight hours
 - B. Every 50 flight hours or as recommended in the maintenance manual
 - C. Every 100 flight hours
 - D. Only when the oil is visibly dirty
- 6. What is the function of the transponder in a Cessna 172?**
 - A. To measure fuel flow
 - B. To transmit the aircraft's position to air traffic control
 - C. To calculate airspeed
 - D. To adjust altitude automatically

7. What does the rudder control on a Cessna 172?

- A. Pitch
- B. Roll
- C. Yaw
- D. Speed

8. During what phase of flight would you retract flaps?

- A. Takeoff
- B. Landing
- C. Go-around
- D. Cruise

9. What condition does the fuel control unit help prevent?

- A. Fuel starvation
- B. Overheating
- C. Vapor locks
- D. Fuel contamination

10. Which gyroscopic instrument is NOT found in a Cessna 172?

- A. Attitude indicator
- B. Heading indicator
- C. Turn coordinator
- D. Speed indicator

Answers

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

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Explanations

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1. What are the primary flight controls in a Cessna 172?

A. Ailerons, Rudder, Elevator

B. Flaps, Spoilers, Rudder

C. Elevator, Ailerons, Trim

D. Rudder, Flaps, Elevator

The primary flight controls in a Cessna 172 consist of ailerons, rudder, and elevator. These controls are essential for maneuvering the aircraft during flight. Ailerons, located on the outer trailing edges of each wing, control the roll of the aircraft. By deflecting one aileron upward and the other downward, the pilot can tilt the airplane left or right, which is critical for turning. The rudder is situated on the vertical stabilizer of the tail and controls yaw, allowing the aircraft to rotate around its vertical axis. This control is particularly important during coordinated turns and managing adverse yaw that may occur from aileron deflection. The elevator is mounted on the horizontal stabilizer and is responsible for pitch control. By moving the elevator up or down, the pilot can raise or lower the nose of the aircraft, allowing for climbs, descents, and level flight. Together, these primary flight controls enable the pilot to effectively manage the aircraft's orientation and altitude during various flight maneuvers. Other options involve secondary controls or components that do not play a role in direct flight control.

2. What component in the L2A designation is responsible for fuel injection?

A. Magnetos

B. Fuel Pump

C. Vacuum Pump

D. Fuel Flow Oil Filter

The fuel pump is a crucial component in the L2A designation responsible for fuel injection in the Cessna 172. This system ensures that fuel is delivered under pressure to the engine's fuel injectors, allowing for optimal atomization and combustion of the fuel-air mixture. Proper functioning of the fuel pump is vital for the engine's performance, as it maintains the flow of fuel needed for the engine to operate efficiently and reliably. In contrast, magnetos are involved in providing the spark necessary for ignition, but they do not contribute directly to fuel injection. The vacuum pump is responsible for creating suction for instruments and systems relying on vacuum pressure, such as the attitude indicator, rather than fuel delivery. The fuel flow oil filter, while important for maintaining fuel quality and protecting the engine from contaminants, does not play a role in the injection of fuel itself. Therefore, the fuel pump's role in ensuring a consistent and adequate fuel supply to the injectors makes it the correct answer regarding the fuel injection system in the L2A designation.

3. What is the main function of the Cessna 172's vacuum system?

- A. To operate the landing gear
- B. To provide cabin pressure
- C. To operate the gyroscopic instruments**
- D. To control fuel flow

The main function of the Cessna 172's vacuum system is to operate the gyroscopic instruments. In this aircraft, the vacuum system is essential for driving the attitude indicator and the heading indicator, which rely on gyroscopic principles to provide pilots with accurate information about the aircraft's orientation and direction. These instruments are critical for flight operations, particularly in conditions where visual references may be limited. The vacuum system generates a suction that spins the gyros within these instruments, allowing them to maintain their orientation and provide stable readings. This is a fundamental feature in many aircraft, especially those that may not have advanced electronic flight displays. Other systems in the aircraft, such as landing gear operations, cabin pressure, and fuel flow, are powered by different mechanisms that do not involve the vacuum system, thus confirming that the correct answer is focused on the role of the vacuum system in supporting crucial flight instruments.

4. Which system provides navigation capability in a Cessna 172?

- A. Fuel management system
- B. Electrical system
- C. Avionics system**
- D. Hydraulic system

The avionics system is responsible for providing navigation capability in a Cessna 172. This system encompasses a variety of electronic devices and instruments that assist pilots in navigating and communicating during flight. These devices include GPS units, navigation radios, and other instrumentation that are essential for effective route planning and real-time navigation control. The avionics system plays a crucial role in enhancing situational awareness and safety by allowing pilots to track their position and make informed decisions. This system integrates with various other flight systems, but its primary function is to facilitate navigation through instruments and technology designed specifically for this purpose. Other systems, such as the fuel management system, electrical system, and hydraulic system, serve different functions. The fuel management system deals with the monitoring and distributing of fuel, the electrical system powers the aircraft's electrical components, and the hydraulic system is used for operating the aircraft's control surfaces and landing gear. None of these systems provide navigation capabilities.

5. How often should oil be changed in a Cessna 172?

- A. Every 25 flight hours
- B. Every 50 flight hours or as recommended in the maintenance manual**
- C. Every 100 flight hours
- D. Only when the oil is visibly dirty

The recommended interval for changing the oil in a Cessna 172 is typically every 50 flight hours, or as outlined in the specific maintenance manual for that particular aircraft. This guidance ensures that the engine remains lubricated effectively and that contaminants do not adversely affect engine performance and longevity. Regular oil changes help to remove impurities, such as carbon deposits and metal shavings, which can accumulate over time and lead to engine wear or damage. Following the manufacturer's recommendations is crucial because it accounts for factors like engine operating conditions and oil properties, ensuring optimal performance. While some aircraft might tolerate longer intervals between oil changes, adhering to the 50-hour guideline provides a balance of maintaining good engine health without unnecessary expense or effort. Routine adherence encourages proactive maintenance, contributing to overall flight safety and aircraft reliability.

6. What is the function of the transponder in a Cessna 172?

- A. To measure fuel flow
- B. To transmit the aircraft's position to air traffic control**
- C. To calculate airspeed
- D. To adjust altitude automatically

The transponder in a Cessna 172 serves a crucial function by transmitting the aircraft's position and other information to air traffic control (ATC). This device plays an essential role in maintaining situational awareness for both the pilots and air traffic controllers, especially in congested airspace. By providing a unique code (squawk code) and altitude data, the transponder helps ATC track and identify the aircraft on radar, improving safety and coordination during flights. Other options represent functionalities that are not associated with the transponder. For instance, measuring fuel flow is managed by separate fuel systems, calculating airspeed involves an airspeed indicator that relies on pitot-static systems, and automatic altitude adjustment is typically handled by the aircraft's autopilot and altitude hold systems. Thus, the transponder's primary purpose and function is to ensure effective communication between the aircraft and air traffic control, aiding in navigation and safety throughout the flight.

7. What does the rudder control on a Cessna 172?

- A. Pitch
- B. Roll
- C. Yaw**
- D. Speed

The rudder in a Cessna 172 primarily controls yaw, which refers to the horizontal movement of the aircraft's nose left or right around its vertical axis. When the pilot applies pressure to the rudder pedals, the rudder deflects to either side, influencing the direction the aircraft's nose points. This is crucial for coordinated turns, as it helps counteract adverse yaw—where the aircraft's nose moves in the opposite direction of the turn due to differences in wing lift and drag. Yaw control is especially important during various phases of flight, including takeoff, landing, and maneuvering in the air. Effective use of the rudder allows the pilot to maintain proper aircraft control and orientation, contributing to overall flight stability and performance. Understanding this role of the rudder is essential for safe flying and effective handling of the aircraft.

8. During what phase of flight would you retract flaps?

- A. Takeoff
- B. Landing
- C. Go-around**
- D. Cruise

The correct choice is during a go-around, which is a phase of flight in which a pilot decides to abort the landing and gain altitude to prepare for another approach. Retracting the flaps during a go-around is essential for increasing the aircraft's climb performance. The Cessna 172 has the capability to climb more effectively when the flaps are retracted, as it reduces drag and allows the airplane to achieve a higher rate of climb. This is critical because a go-around can occur in response to various factors such as an unstable approach or runway obstructions. In contrast, during takeoff, flaps are typically extended to provide additional lift at lower speeds, and it is not immediately safe to retract them. When landing, flaps are fully extended to ensure proper descent and landing characteristics. In cruise, flaps are also retracted, but the context of the question specifically pertains to the actions taken during the go-around phase, making this the most appropriate scenario for flap retraction. Thus, the go-around is the critical moment when retracting flaps enhances the aircraft's performance and safety.

9. What condition does the fuel control unit help prevent?

- A. Fuel starvation
- B. Overheating
- C. Vapor locks
- D. Fuel contamination

The fuel control unit plays a critical role in managing the flow and delivery of fuel to the engine, ensuring that the engine receives the appropriate amount of fuel under varying conditions of operation. One of the primary functions of the fuel control unit is to prevent fuel starvation, which occurs when the engine does not receive enough fuel to maintain operation. This can lead to reduced engine efficiency, power loss, and potentially engine failure. By regulating fuel flow based on factors such as altitude, air density, and engine demands, the unit helps maintain an optimal fuel-air mixture, preventing situations where the engine might struggle to operate due to insufficient fuel supply. This regulation is vital for safe and efficient aircraft operation, particularly in the variable environments that a Cessna 172 may encounter in flight. The other options, though important in their own right, are not directly managed by the fuel control unit. For example, while overheating can be a concern in engine operation, it is more related to cooling systems and engine management rather than specifically to fuel delivery. Vapor locks can arise from certain conditions in the fuel system but are typically mitigated by proper fuel system design and routing than directly through the fuel control unit. Fuel contamination is generally addressed through filtration and fuel quality checks, rather than

10. Which gyroscopic instrument is NOT found in a Cessna 172?

- A. Attitude indicator
- B. Heading indicator
- C. Turn coordinator
- D. Speed indicator

The speed indicator is not a gyroscopic instrument, which is why it is the correct answer. In a Cessna 172, the speed indicator, or airspeed indicator, is a pitot-static instrument. It measures airspeed based on the difference between the static pressure and the dynamic pressure caused by the aircraft's movement through the air. On the other hand, the attitude indicator, heading indicator, and turn coordinator are all gyroscopic instruments. The attitude indicator uses gyroscopic precession to display the aircraft's orientation relative to the horizon. The heading indicator serves as a directional reference, utilizing a gyroscope to provide accurate heading information. Similarly, the turn coordinator indicates the rate of turn and can also show the coordination of the turn through its gyroscopic function. These instruments are critical for maintaining control and situational awareness during flight, especially in conditions where visibility may be limited. Understanding the functions and categories of these instruments is essential for pilots, as it directly relates to their ability to interpret data crucial for safe flight operations.

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:

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

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