

ACADEMIC BLOCK 2 – SYSTEMS 1 (SY190), UPT 2.5 PRACTICE TEST (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

VISIT US ONLINE FOR
THE FULL VERSION STUDY GUIDE

<https://acad2sy90upt25.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.

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

SAMPLE

- 1. What senses duct temperature in the system?**
 - A. Temperature gauges
 - B. Pressure switches
 - C. Temperature switches
 - D. Humidity sensors
- 2. What is the flight control gust lock used for?**
 - A. Increase maneuverability
 - B. Lock the primary flight control surfaces when parked
 - C. Prevent theft
 - D. Facilitate maintenance
- 3. What type of control input takes precedence in a conflicting scenario between the front and rear cockpits?**
 - A. The front cockpit controls
 - B. The rear cockpit controls
 - C. Both controls equally
 - D. No priority is established
- 4. If you pull the CFS handle in the front cockpit, which will activate?**
 - A. Both CFS units
 - B. Only the rear CFS
 - C. Only the front CFS
 - D. The ejection seat
- 5. Which system is typically associated with monitoring the aircraft's performance and ensuring safety?**
 - A. Propeller control system
 - B. Flight management system
 - C. Fuel management system
 - D. Environmental control system

- 6. Where is the landing light located on the aircraft?**
- A. Aft of the right main landing gear strut
 - B. Aft and inboard of the left main landing gear strut
 - C. Aft and outboard of the left main landing gear strut
 - D. In front of the cockpit
- 7. What do the numbers on top of each circuit breaker represent?**
- A. Time before they fail
 - B. Maximum current load in amps
 - C. Voltage ratings
 - D. Physical size of the breaker
- 8. What is the function of the PIRD?**
- A. Retracts shoulder harness during ejection
 - B. Launches the parachute
 - C. Activates emergency oxygen
 - D. Controls ejection seat orientation
- 9. What is the primary function of the reduction gearbox in an aircraft?**
- A. To enhance the engine's overall power output
 - B. To reduce engine output from 30,000 RPM to 2,000 RPM
 - C. To increase propeller speed for better efficiency
 - D. To stabilize engine RPM during flight
- 10. What type of air does the blower in each cockpit evaporator module pull through the evaporator coils?**
- A. Ambient cockpit
 - B. Recycled cabin air
 - C. External engine air
 - D. Heated cabin air

Answers

SAMPLE

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

SAMPLE

Explanations

SAMPLE

1. What senses duct temperature in the system?

- A. Temperature gauges
- B. Pressure switches
- C. Temperature switches**
- D. Humidity sensors

Temperature switches are crucial components in a system designed to sense duct temperature. Unlike gauges, which typically provide a continuous readouts, temperature switches are specifically designed to trigger an action when a specific temperature threshold is reached. This can ensure that the system responds appropriately to temperature changes, activating heating or cooling mechanisms as needed to maintain a desired environment. Temperature switches often have set points that determine at what temperature the switch will toggle on or off, making them integral to maintaining optimal conditions within a ductwork system. While temperature gauges can provide important information, they do not directly control the system's operation based on temperature readings, which is a key function of temperature switches. In contrast, pressure switches and humidity sensors serve different roles within a system. Pressure switches respond to changes in air pressure, and humidity sensors monitor moisture levels, neither of which directly pertains to the measurement and control of temperature within duct systems. Therefore, the focus on temperature switches as the primary sensory mechanism for duct temperature is validated by their operational functions and pivotal role in ensuring system efficiency.

2. What is the flight control gust lock used for?

- A. Increase maneuverability
- B. Lock the primary flight control surfaces when parked**
- C. Prevent theft
- D. Facilitate maintenance

The flight control gust lock serves a critical function in aviation by locking the primary flight control surfaces—such as ailerons, elevators, and rudders—when the aircraft is parked. This locking mechanism is essential for preventing unwanted movement of the flight controls due to wind gusts or other external forces while the aircraft is stationary. Unsecured flight controls can lead to damage or malfunctions, as they may become displaced by gusty winds, which could complicate or hinder the aircraft's readiness for flight. Setting the gust lock ensures that the aircraft remains safe and its components intact while not in operation. It is a necessary precaution that enhances the overall safety and maintenance posture of the aircraft during ground operations. Other choices, while they might touch upon relevant operational issues, do not specifically pertain to the primary purpose of the gust lock system.

3. What type of control input takes precedence in a conflicting scenario between the front and rear cockpits?

- A. The front cockpit controls
- B. The rear cockpit controls**
- C. Both controls equally
- D. No priority is established

In a scenario where there is a conflict between control inputs from the front and rear cockpits, the controls from the rear cockpit take precedence. This design choice is often made to ensure that the instructor or supervising pilot (typically located in the rear cockpit) has the final authority to manage the aircraft's operations, especially in training environments. This prioritization is crucial for safety and effective training, allowing the instructor to intervene in situations where the student pilot in the front cockpit may lack the necessary experience or situational awareness. Therefore, in the event of conflicting commands, the actions from the rear cockpit will override those from the front cockpit, thereby maintaining control and preventing potential mishaps. This system helps to ensure that the instructor can take necessary corrective actions without delay, reinforcing an overarching safety protocol in flight training.

4. If you pull the CFS handle in the front cockpit, which will activate?

- A. Both CFS units
- B. Only the rear CFS
- C. Only the front CFS**
- D. The ejection seat

When the CFS handle in the front cockpit is pulled, it activates only the front CFS unit. This design allows the cockpit crew member to control the CFS system effectively, ensuring that they can manage the situation without inadvertently activating the rear unit, which could be crucial in an emergency scenario. The CFS system is typically designed to allow independent activation based on the aircraft's cockpit layout and safety protocols. Understanding how the system is structured helps pilots and crew members respond appropriately during emergencies and maintain operational safety. The specific activation of just the front CFS reflects the system's functionality to give pilots targeted control over the aircraft's safety mechanisms.

5. Which system is typically associated with monitoring the aircraft's performance and ensuring safety?

- A. Propeller control system
- B. Flight management system**
- C. Fuel management system
- D. Environmental control system

The flight management system is crucial for monitoring the aircraft's performance and ensuring safety during all phases of flight. It integrates various functions such as navigation, performance calculations, and guidance to optimize the flight path. This system continuously evaluates data from multiple sensors and systems onboard, enabling pilots to make informed decisions that enhance safety and operational efficiency. It assists in managing the aircraft's trajectory, ensuring compliance with air traffic control, and optimizing fuel usage, all critical for safe flight operations. While the other systems play important roles within the aircraft—such as managing fuel efficiency, controlling environmental conditions for passenger comfort, or overseeing propeller performance—they do not primarily focus on the comprehensive oversight of the aircraft's overall performance during flight. This distinction makes the flight management system the most appropriate choice for the question regarding monitoring performance and ensuring safety.

6. Where is the landing light located on the aircraft?

- A. Aft of the right main landing gear strut
- B. Aft and inboard of the left main landing gear strut**
- C. Aft and outboard of the left main landing gear strut
- D. In front of the cockpit

The landing light is strategically positioned aft and inboard of the left main landing gear strut on most aircraft designs. This location allows for optimal illumination of the runway environment during takeoff and landing, enhancing visibility for pilots in low-light conditions. Positioning the landing light in this area minimizes the risk of damage from debris that could be kicked up by the landing gear. Furthermore, being located inboard helps manage aerodynamic efficiency and maintains the aircraft's structural integrity. Understanding the specific placement of the landing light is crucial for pilots and ground crews, as it influences pre-flight checks and operational procedures. Accurate knowledge of these locations is essential for ensuring that lights are functioning properly before flight operations begin, contributing to the overall safety of the aircraft during critical phases of flight.

7. What do the numbers on top of each circuit breaker represent?

- A. Time before they fail
- B. Maximum current load in amps**
- C. Voltage ratings
- D. Physical size of the breaker

The numbers on top of each circuit breaker indicate the maximum current load that the breaker can safely handle, typically measured in amps. This rating is crucial for ensuring that the circuit functions correctly and safely. Each circuit breaker is designed to protect electrical circuits from overloads and short circuits by trip-switching when the current exceeds this specified load. By knowing the amp rating, users can determine whether the breaker is suitable for the particular application and whether it will adequately protect the wiring and connected devices from potential damage. Understanding this ensures that the electrical system remains safe, as using a breaker with a rating too low for the current can lead to nuisance tripping, while a breaker rated too high may not adequately protect the circuit from overloads. The other options do not pertain to the purpose of the rating on circuit breakers; for example, time before they fail or voltage ratings are not represented numerically in the same way, and the physical size of the breaker is not related to its amp load rating.

8. What is the function of the PIRD?

- A. Retracts shoulder harness during ejection**
- B. Launches the parachute
- C. Activates emergency oxygen
- D. Controls ejection seat orientation

The function of the PIRD (Pilot Initiated Retraction Device) is to facilitate the retraction of the shoulder harness during an ejection. This is an important safety feature designed to ensure that the pilot is not held back by the harness while exiting the aircraft rapidly, allowing for a clean ejection. By retracting the shoulder harness, the PIRD reduces the risk of injury and ensures a smoother separation from the aircraft, enabling the pilot to deploy their parachute or maneuver as needed in a critical situation. While launching the parachute, activating emergency oxygen, and controlling ejection seat orientation are important processes during an ejection, they are handled by different systems and devices within the aircraft, not the PIRD. This delineation of responsibilities is crucial for understanding the intricate design of ejection systems and ensuring pilot safety.

9. What is the primary function of the reduction gearbox in an aircraft?

- A. To enhance the engine's overall power output
- B. To reduce engine output from 30,000 RPM to 2,000 RPM**
- C. To increase propeller speed for better efficiency
- D. To stabilize engine RPM during flight

The primary function of the reduction gearbox in an aircraft is to reduce the high rotational speed of the engine to a lower, more manageable speed suitable for the propeller. In many aircraft, engines may operate at extremely high RPMs, sometimes around 30,000 RPM or higher, while propellers are designed to function effectively at much lower speeds, typically around 2,000 RPM. The reduction gearbox facilitates this essential conversion of speed, ensuring the propeller operates within its optimal range for efficient thrust generation and performance. This function not only allows for the safe operation of the aircraft components but also ensures that the power generated by the engine is effectively transmitted to the propeller without causing damage or inefficiency.

10. What type of air does the blower in each cockpit evaporator module pull through the evaporator coils?

- A. Ambient cockpit**
- B. Recycled cabin air
- C. External engine air
- D. Heated cabin air

The blower in each cockpit evaporator module pulls through the evaporator coils ambient cockpit air. This is critical as it allows the system to effectively cool and dehumidify the air that is within the cockpit. By drawing in ambient cockpit air, the evaporator coils can remove heat and moisture from this air, leading to a more comfortable environment for both the pilots and passengers. Using ambient air specifically helps maintain appropriate temperatures and humidity levels, which is essential in the confined space of an aircraft cockpit. If recycled cabin air were used, it might be less effective in cooling because the air would already be warmer and potentially more humid. Therefore, the decision to utilize ambient cockpit air ensures that the system can operate efficiently and maintain optimal conditions.

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://acad2sy90upt25.examzify.com>

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

SAMPLE