Skywest ERJ Cockpit Qualification (CQ) and Knowledge Validation (KV) Practice Exam (Sample)

Study Guide

BY EXAMZIFY

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 should be done if a pitch trim runaway occurs during flight?**
   - A. Immediately initiate emergency landing
   - B. Press and hold the AP/TRIM disc button
   - C. Reduce power to idle
   - D. Disconnect the autopilot

2. **What role does the cockpit crew play during critical phases of flight?**
   - A. They can relax and not monitor the systems closely
   - B. They are responsible for active control and close monitoring of the aircraft systems
   - C. They should focus on passenger comfort primarily
   - D. Intermittent monitoring is sufficient during these times

3. **What is a holding pattern used for in aviation?**
   - A. To manage fuel consumption during extended flights
   - B. To follow a predetermined flight path for traffic management
   - C. To allow pilots to monitor flight parameters
   - D. To execute emergency landings safely

4. **What is the procedure during an APU fault indicated by the EICAS?**
   - A. Repair the APU on site
   - B. Log the fault in the maintenance report
   - C. Continue the flight
   - D. Turn off the APU and report

5. **What does "FMS" stand for and what is its purpose?**
   - A. Flight Mechanics System; for aircraft handling
   - B. Flight Management System; it helps in flight planning and navigation
   - C. Flight Monitor System; managing fuel consumption
   - D. Flight Maintenance System; for regular checks

6. During descent in light rain, what is the maximum wiper speed allowed?

A. 200 knots

B. 250 knots

C. 180 knots

D. 300 knots

7. In response to a roll trim runaway, which button should be pressed and held?

A. RUDDER TRIM Button

B. AP/TRIM Disc button

C. CONTROL COLUMN Button

D. ELEVATOR TRIM Button

8. What is the primary difference between VFR and IFR flight rules?

A. VFR requires instruments; IFR does not

B. VFR relies on visual references; IFR relies on instrument navigation

C. VFR is used for emergency flights; IFR is used for normal operations

D. VFR is preferred for night flying; IFR is not

9. At what temperature do icing conditions exist in flight when in visible moisture?

A. Above 0°C

B. 10°C and below

C. 5°C

D. 0°C

10. What is one common cause of an engine power loss?

A. Excessive speed during takeoff

B. Fuel starvation or mechanical failure

C. Overheating of engine components

D. Failure of electrical systems

Answers

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

Explanations

1. What should be done if a pitch trim runaway occurs during flight?

A. Immediately initiate emergency landing

B. Press and hold the AP/TRIM disc button

C. Reduce power to idle

D. Disconnect the autopilot

During a pitch trim runaway, it is crucial to quickly and effectively manage the situation to maintain control of the aircraft. Pressing and holding the AP/TRIM disc button is the correct action because this button is specifically designed to disengage the electrical trim system. By doing this, you effectively stop any further trim actuation and regain control over the pitch of the aircraft. This action is part of the correct procedures outlined for a pitch trim runaway and allows the pilots to stabilize the aircraft by manually controlling the pitch without interference from the automatic systems. It is essential, especially in a scenario where maintaining a controlled flight path is critical to avoid a dangerous situation. In contrast, initiating an emergency landing immediately may not address the root cause of the problem and can lead to unnecessary escalation of the situation. Reducing power to idle does not directly address the trim runaway issue and could lead to other complications. Disconnecting the autopilot, while it may be a consideration, does not directly mitigate a trim runaway scenario as effectively as using the trim disc button. Thus, the correct action is to press and hold the AP/TRIM disc button to regain control.

2. What role does the cockpit crew play during critical phases of flight?

A. They can relax and not monitor the systems closely

B. They are responsible for active control and close monitoring of the aircraft systems

C. They should focus on passenger comfort primarily

D. Intermittent monitoring is sufficient during these times

During critical phases of flight, the cockpit crew has a vital responsibility to maintain active control of the aircraft and closely monitor all systems. Critical phases include takeoff, approach, and landing, where the safety of the flight is paramount and any anomalies or unexpected occurrences need to be addressed immediately. In these phases, the crew must be fully engaged in operating the aircraft, understanding that their actions directly influence safety and the overall success of the flight. This entails not just physical control inputs but also diligent monitoring of avionics, systems performance, and communication with air traffic control, ensuring that the aircraft is operating effectively and safely. The ideology is based on a proactive rather than reactive approach, emphasizing the importance of constant vigilance during these crucial times. Engaging in the roles outlined helps mitigates risks associated with these complex phases of flight, leading to safer operations. This context underlines why maintaining a continuous, active level of monitoring and control is essential for cockpit crews during critical flight stages.

3. What is a holding pattern used for in aviation?

A. To manage fuel consumption during extended flights

B. To follow a predetermined flight path for traffic management

C. To allow pilots to monitor flight parameters

D. To execute emergency landings safely

A holding pattern is a specific maneuver that pilots use to maintain a specified flight path in the airspace, particularly in situations where they need to wait for clearance to land or to sequence with other traffic. The primary purpose of a holding pattern is traffic management. When aircraft are required to enter a holding pattern, they typically do so to manage air traffic flow around busy airports, allowing them to remain safely in the air while waiting for their turn to land or proceed with their flight. In this context, the holding pattern's design — typically involving a series of standardized legs and turns — ensures that aircraft maintain a safe distance from one another and helps air traffic controllers manage these aircraft efficiently. Holding patterns are critical in maintaining situational awareness and safety during potentially congested airspace. While other options may describe various operational aspects of flight, they do not accurately reflect the primary use of holding patterns. Managing fuel consumption, monitoring flight parameters, and emergency procedures are important aspects of flying but are not the central function of a holding pattern.

4. What is the procedure during an APU fault indicated by the EICAS?

A. Repair the APU on site

B. Log the fault in the maintenance report

C. Continue the flight

D. Turn off the APU and report

The procedure during an APU (Auxiliary Power Unit) fault indicated by the EICAS (Engine Indication and Crew Alerting System) involves turning off the APU and reporting the situation. This action is appropriate as it ensures the safety of the aircraft and its systems. When a fault is indicated, there is a risk that the APU could malfunction further, potentially leading to additional complications such as fire, loss of power, or other operational issues. By shutting down the APU, the crew can mitigate these risks and avoid any potential hazards that may arise from operating a faulty unit. Following the shutdown, it's essential to report the APU fault to maintenance personnel so that a thorough inspection and necessary repairs can be performed before the aircraft is used again. This procedure demonstrates a focus on safety and adherence to standard operating procedures, which is vital in aviation operations. The other options generally do not address appropriate responses to APU faults in a safety-oriented manner. They could lead to improper handling of the situation, which is why those actions are not the correct procedures.

5. What does "FMS" stand for and what is its purpose?

A. Flight Mechanics System; for aircraft handling

B. Flight Management System; it helps in flight planning and navigation

C. Flight Monitor System; managing fuel consumption

D. Flight Maintenance System; for regular checks

The term "FMS" stands for Flight Management System. Its primary purpose is to assist pilots in flight planning and navigation during a flight. The FMS integrates various functions, such as route planning, lateral and vertical navigation, performance management, and fuel calculations, into one cohesive system. This allows for a streamlined approach to managing all aspects of the flight, enhancing overall operational efficiency and safety. In detail, the Flight Management System automates many tasks that would traditionally be managed manually by pilots or navigators, reducing workload and allowing for more focus on other critical tasks. It processes flight data and provides essential information for en route decision-making. Its extensive capabilities include managing the flight profile, optimizing fuel consumption, and adapting to changes in waypoints or flight plans based on real-time conditions. Other choices either focus on incorrect definitions of FMS or describe systems that do not encompass its broad functionalities, emphasizing various aspects of flight operations that fall outside the purview of the FMS role in navigation and flight management.

6. During descent in light rain, what is the maximum wiper speed allowed?

A. 200 knots

B. 250 knots

C. 180 knots

D. 300 knots

The maximum wiper speed allowed during descent in light rain is 250 knots. This speed limit is specified to ensure that the windshield wipers can effectively clear rain and maintain visibility for the pilots without damaging the wiper blades or the aircraft's windshield. The wipers are designed to operate efficiently at this speed under light rain conditions, helping to ensure safety during descent when pilots must maintain a clear view of their surroundings. Operating above this speed could compromise the effectiveness of the wipers and potentially lead to reduced visibility and safety hazards during the descent phase of flight.

7. In response to a roll trim runaway, which button should be pressed and held?

A. RUDDER TRIM Button

B. AP/TRIM Disc button

C. CONTROL COLUMN Button

D. ELEVATOR TRIM Button

In the event of a roll trim runaway, the appropriate action is to press and hold the AP/TRIM Disc button. This button serves a critical role in managing the autopilot and trim systems. When engaged, it disconnects the autopilot and cancels any unwanted trim inputs that may be contributing to the roll trim issue. By doing this, it allows the pilot to regain control of the aircraft and stabilize it in the desired flight attitude. The function of the AP/TRIM Disc button is specifically designed to address situations like a trim runaway scenario, enabling the pilot to exert manual control over the aircraft's roll behavior. This is essential for safety and maintaining flight control, as trim runaways can lead to unintended and hazardous aircraft movements. Other buttons, such as the RUDDER TRIM, CONTROL COLUMN, and ELEVATOR TRIM buttons, do not specifically address the trim runaway condition in the context of roll control. Instead, they serve to adjust other aspects of the flight control surfaces or trim systems, making them less relevant for directly counteracting a roll trim runaway.

8. What is the primary difference between VFR and IFR flight rules?

A. VFR requires instruments; IFR does not

B. VFR relies on visual references; IFR relies on instrument navigation

C. VFR is used for emergency flights; IFR is used for normal operations

D. VFR is preferred for night flying; IFR is not

The primary difference between VFR (Visual Flight Rules) and IFR (Instrument Flight Rules) lies in their reliance on navigation techniques and the conditions under which they are used. VFR specifically requires pilots to navigate and control the aircraft primarily by visual references to the ground and scenery. This means that pilots flying under VFR are expected to see and avoid other aircraft and obstacles based on what they can observe visually. Conversely, IFR is designed for conditions where visual references may be limited, such as in poor weather or nighttime flying. Under IFR, pilots navigate by using flight instruments and are required to operate under air traffic control instructions. This establishes a structured environment where pilots can rely on their instruments to control the aircraft and navigate through conditions that might otherwise inhibit visual navigation. Thus, the distinction fundamentally rests on the method of navigation, with VFR being visually based and IFR being instrument-based.

9. At what temperature do icing conditions exist in flight when in visible moisture?

A. Above 0°C

B. 10°C and below

C. 5°C

D. 0°C

Icing conditions in flight, particularly when visible moisture is present, are typically observed in temperatures at or below 10°C. At these temperatures, the possibility of liquid water existing in clouds or precipitation increases, which can lead to ice accumulation on aircraft surfaces, especially on wings and control surfaces where airflow disruption can occur. When temperatures are at or below 10°C, the conditions are conducive for icing, and specific aircraft icing reports often note that even in temperatures above freezing, if moisture is present (like in clouds or rain), there is still a risk of ice forming if the aircraft is operating in the right conditions. As the aircraft temperature drops to 0°C or lower, the risk of icing becomes even more significant. Conversely, temperatures above 10°C typically do not present a risk for icing, as any moisture present is likely to be in a liquid state without the conditions for accumulating ice. Hence, the correct choice reflects the recognized guidelines for pilots concerning icing risks during flight operations.

10. What is one common cause of an engine power loss?

A. Excessive speed during takeoff

B. Fuel starvation or mechanical failure

C. Overheating of engine components

D. Failure of electrical systems

Fuel starvation or mechanical failure is a common cause of engine power loss because it directly disrupts the engine's ability to generate thrust. Fuel starvation occurs when there is an interruption in the fuel supply, which can be caused by various factors such as a clogged fuel line, a malfunctioning fuel pump, or running the tanks dry. Without a consistent and adequate fuel supply, the engine cannot maintain operational performance, leading to a decrease in power output or total loss of power. Mechanical failure also plays a significant role in engine power loss. This can encompass a wide range of issues, including internal component failures such as a broken piston, a malfunctioning compressor, or problems with the engine's gearbox. Any of these failures can impair the engine's efficiency and functionality, resulting in reduced or lost power. In contrast, excessive speed during takeoff, overheating of engine components, and failure of electrical systems can contribute to various operational issues, but they are less commonly associated with immediate engine power loss compared to fuel starvation or mechanical failure. Each of these situations can certainly lead to problems, but the direct link to power loss is more prevalent with fuel-related issues and mechanical integrity.

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://skywesterjcqkv.examzify.com

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