

EMBRAER REGIONAL JET (ERJ) SYSTEMS PRACTICE TEST (SAMPLE)

STUDY GUIDE



**SAMPLE STUDY GUIDE
WITH LIMITED QUESTIONS**

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THE FULL VERSION STUDY GUIDE**

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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. Under which condition will the ATTCS engage?**
 - A. Flaps > 15 degrees
 - B. Thrust levers in TOGA and N1 split > 15%
 - C. Flight below 1000 AGL
 - D. Landing gear down
- 2. What defines when GA thrust is set automatically on EICAS?**
 - A. When the company flight manual is followed
 - B. Gear up and no flaps
 - C. When TOGA is pressed from CRZ, CON, or CLB
 - D. Flaps retracted and N1 exceeds 90%
- 3. Describe the emergency oxygen system in the ERJ-145.**
 - A. Provides supplemental oxygen to pilots only
 - B. Provides supplemental oxygen during cruise flight
 - C. Provides supplemental oxygen to passengers in case of cabin depressurization
 - D. Operates automatically without crew input
- 4. Under what condition will GA thrust be automatically set on the EICAS?**
 - A. Gear up
 - B. Flaps > 0 and gear down
 - C. When above 1000 AGL
 - D. When at cruise speed
- 5. What automatically sets CRZ thrust on the EICAS?**
 - A. At any altitude
 - B. Within 10 knots of selected speed
 - C. At preselected altitude for 90 seconds
 - D. When descending to cruise
- 6. What is the function of the pitch trim system in the ERJ?**
 - A. To control engine power
 - B. To assist in stabilizing the aircraft's pitch attitude
 - C. To increase fuel efficiency
 - D. To enhance landing approaches

7. Which flaps are used for a go-around?

- A. Flaps 1/2
- B. Flaps 4/5
- C. Flaps 2/4
- D. Flaps FULL

8. How are cabin lights controlled in the ERJ-145?

- A. Automatically by the onboard computer
- B. Through manual switches at each seat
- C. By the flight crew using the overhead panel
- D. Via a mobile application

9. What triggers the automatic engagement of the AC fuel pump 1 or 2?

- A. APU operation only
- B. Crossfeeding of fuel
- C. Ejector pump failure
- D. Engine shutdown only

10. What happens to TAT heaters when the airspeed drops below 45 knots while landing?

- A. They become inactive
- B. They automatically turn off
- C. They stay active
- D. They malfunction

Answers

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

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Explanations

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1. Under which condition will the ATTCS engage?

- A. Flaps > 15 degrees
- B. Thrust levers in TOGA and N1 split > 15%**
- C. Flight below 1000 AGL
- D. Landing gear down

The correct condition for the engagement of the Automatic Takeoff Thrust Control System (ATTCS) is when the thrust levers are in TOGA (Takeoff/Go-Around) and the N1 split exceeds 15%. This condition ensures that the system can provide maximum thrust to the operating engine if one engine experiences a failure during takeoff. When thrust levers are set to the TOGA position, the system is primed to provide the necessary thrust for takeoff, while the requirement for the N1 split to be greater than 15% signifies that there is a significant difference in thrust between the engines, which indicates a possible asymmetrical thrust situation. This activation is critical in maintaining safe operation and performance during takeoff under abnormal conditions. The other options presented are relevant to the aircraft's operating conditions but do not directly relate to the conditions necessary for the engagement of the ATTCS. For instance, while specific flap settings, landing gear position, or altitude may have significance in broader operational contexts, they do not dictate the activation of the ATTCS. Therefore, the specific combination of thrust lever position and N1 split is what triggers the system's engagement, ensuring that pilots have the necessary thrust management support during critical phases of flight.

2. What defines when GA thrust is set automatically on EICAS?

- A. When the company flight manual is followed
- B. Gear up and no flaps
- C. When TOGA is pressed from CRZ, CON, or CLB**
- D. Flaps retracted and N1 exceeds 90%

Setting GA (Go-Around) thrust is an important aspect of aircraft operations, particularly during critical phases of flight such as takeoff and landing. The correct choice indicates that GA thrust is automatically set when TOGA (Takeoff/Go-Around) is activated while the aircraft is in a cruise (CRZ), climb (CLB), or continuous (CON) power setting. Understand that "TOGA" is a setting used when a pilot needs maximum thrust to respond to an unexpected situation, such as go-around maneuvers when landing or needing to gain altitude quickly. In this scenario, whenever TOGA is engaged from flight profiles where the engines might not be operating at maximum thrust, GA thrust will be activated automatically, ensuring an adequate power response without any additional pilot input needed. This functionality enhances safety by enabling immediate thrust adjustments as needed based on the aircraft's state. The other choices do not address the automatic setting of GA thrust in the same way. For example, simply having gear up and no flaps or the condition of N1 exceeding certain values does not trigger GA thrust unless explicitly combined with TOGA activation. Thus, the definition of the automatic setting hinges specifically around the operation of pressing the TOGA switch in designated flight modes.

3. Describe the emergency oxygen system in the ERJ-145.

- A. Provides supplemental oxygen to pilots only
- B. Provides supplemental oxygen during cruise flight
- C. Provides supplemental oxygen to passengers in case of cabin depressurization**
- D. Operates automatically without crew input

The emergency oxygen system in the ERJ-145 is designed primarily for passenger safety in case of cabin depressurization. This system automatically provides supplemental oxygen to passengers, ensuring that they have adequate oxygen during an emergency situation when the cabin altitude becomes uncomfortably high or oxygen levels are insufficient. It is crucial for maintaining passenger safety and comfort, allowing them to breathe normally until the aircraft descends to a safer altitude where supplemental oxygen is not required. While other options may touch on aspects of the oxygen system, none accurately capture its primary function regarding passenger safety during depressurization events. The system is designed to activate without crew input only in specific scenarios, but the key feature is its provision of oxygen to the passengers, which is vital for their survival and well-being in emergencies.

4. Under what condition will GA thrust be automatically set on the EICAS?

- A. Gear up
- B. Flaps > 0 and gear down**
- C. When above 1000 AGL
- D. When at cruise speed

The condition for GA (Go-Around) thrust to be automatically set on the EICAS (Engine Indication and Crew Alerting System) is when the flaps are greater than 0 and the landing gear is down. This scenario typically indicates that the aircraft is in a landing configuration, making it crucial for the system to apply a go-around thrust if needed. The activation of GA thrust in this configuration provides the necessary power and performance for the aircraft to safely climb away from the runway in the event of a go-around. In landing scenarios, the flaps are deployed to enhance lift at lower speeds, and the landing gear is down to facilitate landing. Should the need arise to perform a go-around, having GA thrust already set ensures a prompt and efficient response from the aircraft systems, thereby improving safety and operational effectiveness during landing operations.

5. What automatically sets CRZ thrust on the EICAS?

- A. At any altitude
- B. Within 10 knots of selected speed
- C. At preselected altitude for 90 seconds**
- D. When descending to cruise

The correct response is that CRZ thrust is automatically set on the Engine Indication and Crew Alerting System (EICAS) when the aircraft reaches its preselected altitude, provided this occurs for at least 90 seconds. During this time, the system assesses that the aircraft is stabilizing at the target flight level, enabling the engines to transition to cruise thrust settings efficiently. This transition helps optimize fuel consumption and engine performance while maintaining the intended airspeed and altitude, which is crucial during the cruise phase of flight. The other options do not accurately reflect the conditions under which CRZ thrust is activated. For instance, CRZ thrust is not set simply at any altitude or merely based on proximity to a selected speed, as this does not ensure the aircraft has stabilized. Furthermore, CRZ thrust is not activated just because the aircraft descends to cruise; stabilization at a specific altitude for a designated time is essential for the proper deployment of cruise thrust settings.

6. What is the function of the pitch trim system in the ERJ?

- A. To control engine power
- B. To assist in stabilizing the aircraft's pitch attitude**
- C. To increase fuel efficiency
- D. To enhance landing approaches

The pitch trim system in the ERJ is designed to assist in stabilizing the aircraft's pitch attitude. This system allows the pilot to adjust the tailplane's aerodynamic forces without having to maintain constant control wheel pressure. By trimming the pitch, the aircraft can maintain a desired attitude and altitude more easily, reducing pilot workload during flight, particularly during prolonged periods of cruise or when the aircraft is actively maneuvering. It works by adjusting the elevator's position, which directly affects the aircraft's nose-up or nose-down orientation. With the trim set appropriately, the aircraft can fly hands-off at a stable pitch setting, enhancing overall control and comfort for both pilots and passengers. This is particularly important during various phases of flight, such as cruising, where steady flight conditions are crucial for efficiency and safety.

7. Which flaps are used for a go-around?

- A. Flaps 1/2
- B. Flaps 4/5
- C. Flaps 2/4**
- D. Flaps FULL

In the context of the Embraer Regional Jet (ERJ), during a go-around procedure, it is standard to use Flaps 2/4. This configuration allows for sufficient lift while ensuring that the aircraft does not become too slow or unstable. The choice of Flaps 2/4 strikes a balance between lift and drag, enabling an effective climb out when power is added and maintaining control at lower speeds. Using Flaps 2/4 also facilitates a quicker transition back to a clean wing configuration once adequate altitude and speed have been regained, which is essential for a successful go-around. Each flap setting has been designed and validated through testing to ensure optimal aircraft performance during various phases of flight, including the critical go-around maneuver.

8. How are cabin lights controlled in the ERJ-145?

- A. Automatically by the onboard computer
- B. Through manual switches at each seat
- C. By the flight crew using the overhead panel**
- D. Via a mobile application

In the Embraer ERJ-145, cabin lights are controlled primarily by the flight crew using the overhead panel. This system is designed for practicality and safety, allowing the crew to adjust the lighting level for different phases of the flight, such as during boarding, takeoff, or when transitioning to night operations. The overhead panel provides easy access to switches and controls, which enables the crew to make prompt adjustments as needed. This centralized control system ensures that the lighting can be managed effectively, enhancing the experience for passengers and also aiding in safety protocols, such as preparing the cabin for landing. While other options may suggest alternatives for light control, the design prioritizes crew input to maintain operational authority and streamline the management of cabin environments.

9. What triggers the automatic engagement of the AC fuel pump 1 or 2?

- A. APU operation only
- B. Crossfeeding of fuel
- C. Ejector pump failure**
- D. Engine shutdown only

The automatic engagement of AC fuel pump 1 or 2 is primarily triggered by the failure of the ejector pump. The ejector pumps are designed to maintain fuel flow from the tank to the engines by using engine or APU bleed air to create suction. If an ejector pump fails, the system recognizes that it can no longer rely on the ejector's capabilities to transfer fuel effectively. As a result, the fuel system automatically activates the corresponding AC fuel pump to ensure there is a continuous and reliable flow of fuel to the engines, thereby preventing an engine fuel starvation scenario. This mechanism ensures that the aircraft can still operate safely and efficiently even in the event of an ejector pump failure, providing redundancy to the fuel delivery system. In contrast, the other options do not trigger the automatic activation of the AC fuel pumps in the same way. APU operation may use the fuel system but does not specifically necessitate the engagement of the AC pumps. Crossfeeding of fuel is a manual operation intended to balance fuel loads between tanks and does not automatically engage the pumps. Finally, while engine shutdown does create situations where fuel management becomes crucial, it does not inherently engage the AC pumps without a failure of another system like the ejector pump.

10. What happens to TAT heaters when the airspeed drops below 45 knots while landing?

- A. They become inactive**
- B. They automatically turn off
- C. They stay active
- D. They malfunction

When the airspeed drops below 45 knots while landing, the TAT (Total Air Temperature) heaters become inactive. This is a designed safety feature to prevent overheating and potential damage to the sensors as they are unnecessary at lower speeds, where accurate total air temperature readings are less critical for performance and safety. At higher speeds, the heaters are essential for ensuring the accuracy of temperature readings, especially in conditions where icing might occur. When the aircraft slows down to a speed below 45 knots, maintaining heat for the TAT is not required, leading to the heaters being deactivated to conserve energy and reduce wear on the system. This helps in preserving the overall functionality of the sensors and ensuring that they are ready for use when needed at higher speeds.

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://erjsystems.examzify.com>

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

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