Skywest CRJ Cockpit Qualification (CQ) Practice Test (Sample)

Study Guide

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Questions

1. **In which systems would you find the flight control computers?**
   - **A. The cabin pressurization and air conditioning systems**
   - **B. The aileron, elevator, and rudder control systems**
   - **C. The autopilot and navigation systems**
   - **D. The fuel management and engine control systems**

2. **What is the APU maximum altitude for bleed air use in the CRJ 200?**
   - **A. 10,000 feet**
   - **B. 15,000 feet**
   - **C. 20,000 feet**
   - **D. 25,000 feet**

3. **When should the wing anti-ice be on for taxi in the CRJ 200?**
   - **A. When OAT is less than or equal to 5°C**
   - **B. When OAT is higher than 5°C**
   - **C. Always during taxi**
   - **D. Only when snow is present**

4. **What should the PF do if the EFB securing device breaks?**
   - **A. Use the remaining securing device**
   - **B. Stop flying and return to base**
   - **C. Continue the flight without any device**
   - **D. Inform maintenance staff immediately**

5. **What is the crosswind limitation for takeoff in the CRJ 900?**
   - **A. 30 knots**
   - **B. 32 knots**
   - **C. 35 knots**
   - **D. 40 knots**

6. **What action should be taken immediately after initiating a go-around in the CRJ?**
   - A. Retreat to initial approach altitude
   - B. Transfer control back to the first officer
   - C. Engage full power and climb
   - D. Stabilize speed before climbing

7. **What is the role of the Captain during a CRJ flight?**
   - A. To file the flight plan and conduct pre-flight inspections
   - B. To lead the crew, make final decisions, and ensure safety
   - C. To handle all communications with passengers
   - D. To calculate fuel loads and weight distributions

8. **What type of alerts does the CRJ stall warning system provide?**
   - A. Visual cues only for safety measures
   - B. No alerts unless in stalls
   - C. Noise alerts and visual indicators when stall margins reduce
   - D. Textual warnings within cockpit displays

9. **How long must you wait after energizing the EICAS before starting the APU?**
   - A. 15 seconds
   - B. 30 seconds
   - C. 45 seconds
   - D. 60 seconds

10. **What describes the procedure for a go-around in the CRJ?**
   - A. Full speed reduction and landing gear extension
   - B. Full power application, positive rate of climb, and gear retraction
   - C. Immediate descent and approach stabilization
   - D. Manual override of autopilot and landing gear deployment

Answers

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

Explanations

1. **In which systems would you find the flight control computers?**

   A. The cabin pressurization and air conditioning systems

   B. The aileron, elevator, and rudder control systems

   C. The autopilot and navigation systems

   D. The fuel management and engine control systems

The flight control computers are integral components of the aircraft's primary control systems, specifically responsible for managing the ailerons, elevators, and rudder. These components are crucial for controlling the aircraft's attitude and direction during flight. The flight control computers receive input from the pilots through the control yoke or side-stick and from various sensors throughout the aircraft, processing this information to ensure stable flight and adherence to the desired flight path. This involves making real-time adjustments to the flight control surfaces, which are essential for maneuvering and maintaining control. While other systems listed play significant roles in the overall operation of the aircraft, they do not directly involve the flight control computers. The cabin pressurization and air conditioning systems are focused on passenger comfort and safety; the autopilot and navigation systems assist in flying the aircraft but are not primarily responsible for direct control of flight surfaces; and the fuel management and engine control systems pertain to the propulsion and efficiency of the aircraft rather than the flight direction itself. Thus, the correct identification of flight control computers being found with the aileron, elevator, and rudder control systems stands strong.

2. **What is the APU maximum altitude for bleed air use in the CRJ 200?**

   A. 10,000 feet

   B. 15,000 feet

   C. 20,000 feet

   D. 25,000 feet

The maximum altitude for bleed air use from the Auxiliary Power Unit (APU) in the CRJ 200 is set at 15,000 feet. This altitude limitation is primarily due to the performance characteristics of the APU and the design of the aircraft's systems. At altitudes above 15,000 feet, the APU may not provide sufficient bleed air pressure or flow to effectively support the environmental control systems or engine starting procedures. This operational parameter ensures that the APU delivers adequate air supply when needed, maintaining safety and operational efficiency. As the aircraft ascends, changes in atmospheric pressure and temperature can significantly affect the performance of the APU, which is why manufacturers specify maximum operational altitudes for various uses. Understanding these limitations is crucial for pilots and crew to ensure they adhere to the operational guidelines for safe aircraft management.

3. When should the wing anti-ice be on for taxi in the CRJ 200?

A. When OAT is less than or equal to 5°C

B. When OAT is higher than 5°C

C. Always during taxi

D. Only when snow is present

The correct answer is based on the operational guidelines for the CRJ 200 regarding the use of wing anti-ice during taxi. The wing anti-ice should be activated when the outside air temperature (OAT) is less than or equal to 5°C to prevent ice from forming on the wings, which can adversely affect the aircraft's performance and handling characteristics during takeoff and flight. At temperatures at or below this threshold, there is a risk of icing conditions, particularly if moisture is present in the air, which can lead to ice accumulation on the wing surfaces. This ice buildup could disrupt the airflow and reduce lift, making it essential to ensure that the wings are clear before takeoff. Taxiing with the wing anti-ice engaged under the specified conditions ensures a safer operational environment and compliance with the aircraft's performance standards. The other choices relate to scenarios where wing anti-ice should not necessarily be activated. When OAT is higher than 5°C, the risk of icing is significantly reduced, and using the system at that point may not be necessary. Keeping it on at all times during taxi could lead to unnecessary wear on the system and increase fuel consumption. Activating it only when snow is present may not account for other icing conditions

4. What should the PF do if the EFB securing device breaks?

A. Use the remaining securing device

B. Stop flying and return to base

C. Continue the flight without any device

D. Inform maintenance staff immediately

If the electronic flight bag (EFB) securing device breaks, the pilot flying (PF) should utilize the remaining securing device available. This choice allows for continued operational safety by securing the EFB in place to prevent it from becoming a distraction or a potential hazard while flying. The EFB is a critical tool for access to charts, operational data, and other flight-related information. By using the remaining device, the pilot can ensure that the EFB remains stable and accessible during the flight. Other options may not prioritize immediate safety and operational integrity as effectively. Returning to base or stopping the flight could be unnecessarily disruptive if a method to secure the EFB is still at hand. Continuing the flight without any securing device poses risks, as it can lead to the EFB moving around in the cockpit, potentially distracting the crew or blocking critical instruments. Informing maintenance staff is also important but is more of a secondary consideration once the immediate need for securing the EFB is addressed. Thus, using the remaining securing device is the most logical and safety-conscious response.

5. What is the crosswind limitation for takeoff in the CRJ 900?

- A. 30 knots
- B. 32 knots
- C. 35 knots
- D. 40 knots

The crosswind limitation for takeoff in the CRJ 900 is indeed 35 knots. This limitation is important because it helps ensure safe aircraft operations in varying weather conditions. Crosswinds during takeoff can affect the aircraft's handling qualities, and exceeding this limitation can lead to difficulties in maintaining control and stability. The specified limit of 35 knots represents the maximum crosswind component that the aircraft is certified to handle during takeoff. It is based on the aircraft's aerodynamic design, flight control capabilities, and performance characteristics. Adhering to this limitation is critical for pilots to maintain safety standards and ensure a successful takeoff under challenging wind conditions. Knowledge of these limits is essential for flight planning and execution, contributing to overall operational safety.

6. What action should be taken immediately after initiating a go-around in the CRJ?

- A. Retreat to initial approach altitude
- B. Transfer control back to the first officer
- C. Engage full power and climb
- D. Stabilize speed before climbing

The most appropriate action to take immediately after initiating a go-around in the CRJ is to engage full power and climb. This action is critical because during a go-around, the aircraft must quickly and efficiently gain altitude to ensure safety and create separation from the runway and any obstacles. Full power is necessary to achieve a positive rate of climb, which is imperative for avoiding a potential mishap if the go-around was initiated due to an unexpected scenario, such as an unstable approach or a conflict on the runway. Engaging power fully allows the aircraft to accelerate and achieve the climb performance necessary while the pilots reconfigure for the climb phase. Properly executing this step sets up the flight for a successful transition to the next phase of flight, typically re-entering the traffic pattern or proceeding to a new approach. In this context, the other options do not address the immediate requirement of gaining altitude effectively in a go-around scenario. While establishing a retreat to the initial approach altitude or stabilizing speed might be important in other phases of flight, they are not the first priority after a go-around is initiated. Transferring control back to the first officer could also be relevant, but the first action must be to ensure the aircraft is in a safe handling configuration with sufficient climb

7. What is the role of the Captain during a CRJ flight?

- A. To file the flight plan and conduct pre-flight inspections
- B. To lead the crew, make final decisions, and ensure safety
- C. To handle all communications with passengers
- D. To calculate fuel loads and weight distributions

The role of the Captain during a CRJ flight encompasses a range of responsibilities that are crucial for ensuring the safe and efficient operation of the aircraft. The Captain serves as the aircraft commander, leading the crew and making final decisions regarding the flight operations. This includes evaluating various factors such as weather, aircraft performance, and air traffic conditions to ensure safety throughout the flight. Additionally, the Captain is responsible for overseeing the crew's actions and maintaining communication with air traffic control and dispatch. By fulfilling these responsibilities, the Captain ensures that the highest standards of safety and compliance with regulations are adhered to, which is paramount for any flight operation.

8. What type of alerts does the CRJ stall warning system provide?

- A. Visual cues only for safety measures
- B. No alerts unless in stalls
- C. Noise alerts and visual indicators when stall margins reduce
- D. Textual warnings within cockpit displays

The CRJ stall warning system is designed to provide both auditory and visual alerts to inform the pilots of a potential stall condition. When the aircraft approaches stall margins, the system activates a combination of noise alerts—a distinct auditory warning—and visual indicators that illuminate on the flight displays. This multi-faceted approach ensures that the pilots are aware of the increasing risk of stall well before it occurs, enabling them to take corrective action. This capability is essential for safety, as it gives pilots timely feedback about the aircraft's performance and allows for appropriate adjustments to maintain safe flight. The noise alerts serve as an immediate attention grabber, while the visual cues provide further data about the aircraft's attitude and performance relative to stall limitations. The other choices do not accurately reflect the capabilities of the CRJ stall warning system. For example, visual cues only or textual warnings without accompanying sound would not provide the same level of alertness needed in critical situations. Additionally, a lack of alerts until reaching stall conditions would compromise safety by not giving pilots the essential early warnings required to avoid a stall altogether.

9. How long must you wait after energizing the EICAS before starting the APU?

- A. 15 seconds
- B. 30 seconds
- C. 45 seconds
- D. 60 seconds

The correct answer is based on the specific operational procedures established for the CRJ aircraft. After energizing the Engine Indication and Crew Alerting System (EICAS), it is important to allow a minimum of 30 seconds before starting the Auxiliary Power Unit (APU). This waiting period ensures that the EICAS has enough time to complete its initial system checks and diagnostic routines. It allows the crew to have a fully operational EICAS, which provides critical information on the aircraft's systems and alerts, ensuring a safe start of the APU. This procedure contributes to the overall safety and workflow efficiency during ground operations.

10. What describes the procedure for a go-around in the CRJ?

- A. Full speed reduction and landing gear extension
- B. Full power application, positive rate of climb, and gear retraction
- C. Immediate descent and approach stabilization
- D. Manual override of autopilot and landing gear deployment

The procedure for a go-around in the CRJ involves applying full power to ensure that the aircraft can climb away from the approach path safely and efficiently. Once a positive rate of climb is established, the landing gear should be retracted to reduce drag and allow for a more streamlined ascent. This sequence is critical to maintain aircraft safety and performance during a go-around situation, where effective climb capability is essential. The approach focuses on maximizing engine thrust to gain altitude, which allows pilots to transition to a safe flight path for a subsequent landing attempt. Proper gear retraction timing is also important to enhance climb performance and optimize the aircraft's flight profile during the go-around phase. Other options describe actions that are either not appropriate or not part of standard go-around procedures. For instance, a speed reduction and landing gear extension does not support climbing away from the runway effectively, nor does immediate descent align with the intent of a go-around, which is to regain control and altitude for another approach. Manual overrides can sometimes be necessary in different contexts but are not specifically part of the standard go-around procedure in the CRJ.