BOEING 747-8 SYSTEM PRACTICE EXAM (SAMPLE)

STUDY GUIDE

SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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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

1. During load shedding, when an additional AC power source becomes available, how are loads restored?

A. In reverse order

B. In the same order as they were shed

C. All at once

D. Randomly

2. What provides lower aft cargo heat and how is the temperature controlled?

A. Electrical heater in the compartment.

B. Bleed air from the center section of the bleed air duct, with a thermal switch opening the valve when the compartment is cool and closing the valve when it warms.

C. Bleed air from the center section of the bleed air duct, with a manual valve.

D. Recirculated cabin air only.

3. Auto-relight protection is provided for flameout and rollback. When is auto-relight activated?

A. Activated when engine flameout or rollback is detected by the EEC; igniters are activated

B. Activated only during water ingestion

C. Activated when EGT exceeds limit

D. Activated during maintenance tests

4. If an engine fails prior to the approach, at what altitude does AFDS introduce a sideslip to wings level?

A. 1300 ft AGL

B. 500 ft AGL

C. 200 ft AGL

D. 1000 ft AGL

5. The ISFD receives ILS or GLS approach data from which source?

A. The left approach receiver

B. The right approach receiver

C. GPS receiver

D. ISFD generates approach data itself

6. List EEC power supply before and after engine running.

A. Hydraulic pump on the engine

B. External power supply on the ground

C. Alternator mounted on the engine accessory gearbox

D. Batteries and external power source

7. Can all 3 ADIRU operate using DC power? Any time limit?

A. The center ADIRU operates on DC power for five minutes, then shuts down; the other ADIRUs rely on AC power

B. All three can operate on DC indefinitely

C. Only the left ADIRU can operate on DC

D. None can operate on DC power

8. Which hydraulic systems power the trailing edge flap groups?

A. Inboard by hydraulic system 4; Outboard by hydraulic system 1.

B. Inboard by hydraulic system 1; Outboard by hydraulic system 4.

C. Inboard by hydraulic system 2; Outboard by hydraulic system 3.

D. Both powered by hydraulic system 1.

9. During ice crystal icing with VBV open, which parameter may overshoot commanded N1 by up to 6% for 10 seconds?

A. N2

B. EGT

C. N1

D. Oil pressure

10. What is the effect of the rudder ratio changers on rudder surfaces as airspeed changes?

A. They increase the response at higher speeds

B. They have no effect

C. They gradually reduce each rudder surface's response to pedal inputs as airspeed changes.

D. They lock the rudder at zero

Answers

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

Explanations

1. During load shedding, when an additional AC power source becomes available, how are loads restored?

A. In reverse order

B. In the same order as they were shed

C. All at once

D. Randomly

When extra AC power becomes available after shedding loads, the restores are done in the opposite sequence from how they were shed. This reverse ordering brings back the most critical or last-shed loads first and then gradually reconnects the remaining ones as power allows. The benefit is a controlled, staged re-energization that prevents large inrush currents or overload on the power source and buses, helping to keep essential systems online and avoid triggering protective trips. Restoring all at once would risk overloading the system, and restoring in the same or a random order could cause voltage fluctuations or further trips.

2. What provides lower aft cargo heat and how is the temperature controlled?

A. Electrical heater in the compartment.

B. Bleed air from the center section of the bleed air duct, with a thermal switch opening the valve when the compartment is cool and closing the valve when it warms.

C. Bleed air from the center section of the bleed air duct, with a manual valve.

D. Recirculated cabin air only.

Lower aft cargo heat comes from bleed air taken from the center section of the bleed air duct. This hot air is directed into the cargo area to raise its temperature as needed. Temperature is controlled automatically by a thermal switch that senses the cargo bay temperature and modulates a valve: when the bay is cool, the switch opens the valve to allow bleed air in; when the bay warms, the switch closes the valve to reduce or stop the flow. This automatic regulation maintains the desired temperature without using electric heaters or relying on passenger cabin air.

3. Auto-relight protection is provided for flameout and rollback. When is auto-relight activated?

A. Activated when engine flameout or rollback is detected by the EEC; igniters are activated

B. Activated only during water ingestion

C. Activated when EGT exceeds limit

D. Activated during maintenance tests

Auto-relight protection is tied to the engine's monitoring of combustion health. The control logic triggers ignition to try to re-light when the Exhaust Gas Temperature reaches or exceeds its preset limit. This threshold-based signal ensures that, if flame is lost or combustion cannot be sustained (flameout or rollback), the igniters are energized to attempt a re-light and restore stable operation. It isn't limited to water ingestion or maintenance tests, and it isn't based on flameout detection alone without the EGT limit being reached.

4. If an engine fails prior to the approach, at what altitude does AFDS introduce a sideslip to wings level?

A. 1300 ft AGL

B. 500 ft AGL

C. 200 ft AGL

D. 1000 ft AGL

The question is about how the AFDS stabilizes the airplane when an engine fails before the approach. In an engine-out condition, the airplane has a natural yaw and roll tendency from the asymmetric thrust. To keep the approach stable and keep the wings level, the AFDS is programmed to transition into a wings-level sideslip at a specific point in the descent. That transition occurs at about 1300 ft AGL. This timing gives enough vertical room and control authority to bleed off the asymmetry, align with the intended flight path, and maintain a stable, wings-level configuration as you continue the approach and prepare for the final descent. Beginning the sideslip too low would risk getting to the runway with insufficient margin to reconfigure the flight path safely; starting too high would delay stabilization and could require more aggressive control inputs closer to the runway. So, when an engine fails prior to the approach, the aircraft's AFDS will introduce a sideslip to wings level at 1300 ft AGL to promote a safe, stable approach configuration.

5. The ISFD receives ILS or GLS approach data from which source?

A. The left approach receiver

B. The right approach receiver

C. GPS receiver

D. ISFD generates approach data itself

Approach data for the ISFD comes from the left approach receiver. This channel decodes the localizer and glideslope signals (and handles GLS data when applicable) and supplies the ISFD with the approach course, deviation, and glide-path information it needs to display approach cues. The right approach receiver acts as a backup or serves other systems, but the ISFD's primary source for ILS/GLS data is the left receiver. The ISFD does not generate this data itself; it relies on the approach receiver network for the information.

6. List EEC power supply before and after engine running.

A. Hydraulic pump on the engine

B. External power supply on the ground

C. Alternator mounted on the engine accessory gearbox

D. Batteries and external power source

The essential idea is that the Engine Electronic Control (EEC) needs a reliable electrical power source, and the engine's own generator is designed to provide that once the engine is turning. On the 747-8, the alternator is mounted on the engine accessory gearbox, and when the engine is running it drives this generator to supply the EEC with stable 28V DC power. This is why the engine-driven alternator is the primary power source for the EEC after start—the generator is directly driven by the engine and stays in step with engine speed, delivering the power the EEC needs to manage fuel control and other engine functions. Before the engine runs, the engine-driven alternator isn't turning, so power to the EEC must come from any available alternative sources such as external ground power or the aircraft batteries. The hydraulic pump isn't used to power the EEC, as it provides hydraulic pressure, not electrical power. External power or batteries are used for prestart or standby situations, but once the engine is running, the engine's accessory-gearbox alternator takes over as the primary supply.

7. Can all 3 ADIRU operate using DC power? Any time limit?

A. The center ADIRU operates on DC power for five minutes, then shuts down; the other ADIRUs rely on AC power

B. All three can operate on DC indefinitely

C. Only the left ADIRU can operate on DC

D. None can operate on DC power

When ADIRUs are powered, they normally run from the aircraft's AC electrical system, providing attitude and air data to the flight deck. In a power-loss scenario, there is a DC power option, but it's limited. The center ADIRU can operate on DC power for a short time—five minutes—after which it shuts down. The other two ADIRUs do not run on DC for any duration; they require AC power to function. This arrangement gives you a temporary attitude reference from the center unit during a power transition, enough time to manage the power loss and re-establish normal AC power or switch to other sources, without letting DC operation continue indefinitely and risking sensor drift.

8. Which hydraulic systems power the trailing edge flap groups?

A. Inboard by hydraulic system 4; Outboard by hydraulic system 1.

B. Inboard by hydraulic system 1; Outboard by hydraulic system 4.

C. Inboard by hydraulic system 2; Outboard by hydraulic system 3.

D. Both powered by hydraulic system 1.

The trailing edge flap groups are designed to be powered by separate hydraulic sources to provide redundancy and proper load handling. On the 747-8, the inboard trailing edge flap groups are powered by hydraulic system 1, while the outboard groups are powered by hydraulic system 4. This split means that a failure in one hydraulic system won't disable both flap groups, allowing the crew to still operate the flaps using the other system. It also matches the aircraft's hydraulic routing and actuator distribution, giving each flap group its own dedicated supply and making fault isolation easier. If the flaps were fed from the same system or split differently, a single-system failure could affect more surfaces or overload the remaining system, reducing safe, reliable operation.

9. During ice crystal icing with VBV open, which parameter may overshoot commanded N1 by up to 6% for 10 seconds?

A. N2

B. EGT

C. N1

D. Oil pressure

In this scenario the N1 spool speed is the one most likely to exhibit a brief overshoot. When ice crystal icing occurs with the variable bleed valve open, the air path and compressor flow become momentarily distorted, and the engine control loop responds to maintain the commanded N1 by adjusting fuel delivery. The dynamic interaction between the FADEC/N1 control and the altered flow during icing can cause a short-lived surge in fan speed before the system settles back to the target. That transient overshoot can be up to about 6% for around 10 seconds and is a characteristic of how the N1 loop reacts to icing-related flow changes. N2, EGT, and oil pressure are governed by different dynamics (spool inertia, temperature limits, and lubrication system response, respectively) and are not expected to overshoot the commanded N1 in this icing condition.

10. What is the effect of the rudder ratio changers on rudder surfaces as airspeed changes?

A. They increase the response at higher speeds

B. They have no effect

C. They gradually reduce each rudder surface's response to pedal inputs as airspeed changes.

D. They lock the rudder at zero

Rudder ratio changers control how much rudder movement you get from pedal input, and they adjust this relationship as airspeed changes. At low speeds, you want more rudder authority to help with yaw control when the aircraft is easy to disturb. As airspeed rises, the ratio changers reduce the effectiveness of each rudder surface so that the same pedal input causes less deflection. This gradual reduction keeps yaw control workable without overreacting to pedal inputs or imposing large side forces and loads on the tail at high speeds. So the correct idea is that they progressively lessen each rudder surface's response to pedal inputs as airspeed changes.

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://boeing7478sys.examzify.com

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