BEECHJET 400A COMPUTER TRAINING SYSTEMS (CTSYS) PRACTICE TEST (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.

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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!

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Questions

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1. The function of the altitude pressure regulator is to limit cabin altitude to what value range?

A. To regulate cockpit pressure

B. To regulate outflow valve position

C. To limit cabin altitude to 12,500 +/- 1,500 feet

D. To maintain cabin temperature

2. The high compressor section of the JT15D engine consists of which component?

A. Two single-stage axial compressors

B. One single-stage centrifugal compressor

C. Three-stage axial compressor

D. Two-stage centrifugal compressor

3. An adjustable gust lock immobilizes the elevators when attached to the what?

A. Rudder pedals

B. Instrument panel

C. Structure beneath the forward instrument panel

D. Pilot's control wheel

4. During an inadvertent overspeed, which phrase may be used to establish crew communication?

A. Let the Big Dog Run

B. Standby

C. Check complete

D. All clear

5. Under icing conditions indicated by the ICING annunciator or airframe ice accumulation, the anti-ice system should be used at ram air temperatures of:

A. Any temperature

B. 10 °C or less

C. -40 °C

D. 20 °C or less

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6. The white light above the wing deice switch illuminates when the wing temperature sensor senses approximately what temperature?

A. 32 degrees F

B. 212 degrees F

C. 0 degrees F

D. Approximately 140 degrees F

7. To start the right engine, the crew should first perform which action?

A. Select the engine select switch to the R position.

B. Move thrust lever to IDLE

C. Place ignition switch to STBY

D. Set HMU to idle

8. Which statement about Synthetic Type II replenishment is true?

A. A maximum of four quarts per engine in 200 hour period

B. A maximum of two quarts per engine in any 400 hour period

C. No replenishment allowed

D. Only mineral oil may be used.

9. If the right load bus loses power and No.1 inverter has also failed, from which source does No.2 inverter receive power?

A. RH load bus

B. Emergency bus

C. Battery

D. External power

10. If the LH engine fire ON light illuminates and the fire bell audible warning sounds, the pilot should first do what?

A. Move the LH thrust lever to IDLE

B. Move the LH thrust lever to CUTOFF

C. Push the LH engine fire button

D. Push the fire bottle

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Answers

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

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Explanations

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1. The function of the altitude pressure regulator is to limit cabin altitude to what value range?

A. To regulate cockpit pressure

B. To regulate outflow valve position

C. To limit cabin altitude to 12,500 +/- 1,500 feet

D. To maintain cabin temperature

The altitude pressure regulator sets the cabin pressure ceiling in the pressurization system. It senses the cabin and outside pressure and trims bleed air and the outflow valve to keep the cabin altitude from rising above the chosen limit. In the Beechjet 400A, that limit is about 12,500 feet with a tolerance of roughly plus/minus 1,500 feet, so the cabin altitude should stay around 11,000 to 14,000 feet. That's why this function is described as limiting cabin altitude to that value range. Other options point to different systems or roles—cockpit pressure regulation, outflow valve positioning as the regulator's primary job, or cabin temperature control—which are not the primary purpose of the altitude regulator.

2. The high compressor section of the JT15D engine consists of which component?

A. Two single-stage axial compressors

B. One single-stage centrifugal compressor

C. Three-stage axial compressor

D. Two-stage centrifugal compressor

The high compressor section in the JT15D is a single-stage centrifugal compressor. In this engine, the low-pressure side uses axial stages, while the high-pressure portion uses one centrifugal impeller to produce the required pressure rise in a compact, lightweight package. The centrifugal flow design accelerates air through the impeller and then uses a diffuser and volute to convert that velocity into pressure before the air enters the combustor. This arrangement provides the needed pressure rise with fewer moving parts and a smaller diameter than multiple axial stages. The other options describe axial multi-stage or two-stage centrifugal configurations that don't match the JT15D's high pressure section design.

3. An adjustable gust lock immobilizes the elevators when attached to the what?

A. Rudder pedals

B. Instrument panel

C. Structure beneath the forward instrument panel

D. Pilot's control wheel

Gust locks prevent movement of the flight controls, and on this aircraft the adjustable gust lock is designed to secure the pilot's control wheel. Locking the wheel stops deflection of the control linkage that moves the elevator, so the elevator remains fixed in gusty conditions or on the ground. The rudder pedals control the rudder, and attaching a gust lock to the instrument panel or the structure beneath the forward instrument panel wouldn't immobilize the elevator. Therefore, the gust lock immobilizes the elevators when attached to the pilot's control wheel.

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4. During an inadvertent overspeed, which phrase may be used to establish crew communication?

A. Let the Big Dog Run

B. Standby

C. Check complete

D. All clear

During an inadvertent overspeed, clear, quick crew communication is essential so everyone understands the action being taken and can respond in a coordinated way. The phrase in question is a distinctive cue that conveys the intent to allow the overspeed condition to continue for a moment while the crew observes the airplane's response and coordinates steps to regain proper configuration. This particular phrase is effective because it is short, memorable, and unambiguous. It signals the crew that you're not halting the overspeed yet, but you are acknowledging it and ready to monitor and manage the situation. Other options either describe a status without conveying any specific action, or are too generic to serve as a rapid, unambiguous cue during a time-critical event. In the context of the CTSys, this call serves as a clear, shared signal to establish communication and focus attention on handling the overspeed safely.

5. Under icing conditions indicated by the ICING annunciator or airframe ice accumulation, the anti-ice system should be used at ram air temperatures of:

A. Any temperature

B. 10 °C or less

C. -40 °C

D. 20 °C or less

When icing conditions are indicated, engage the anti-ice system regardless of ram air temperature. Ice can form on surfaces due to moisture and supercooled droplets even when the air temperature isn't very cold, so waiting for a specific temperature could allow icing to continue. The ICING annunciator signals that ice is forming, and the anti-ice system is meant to prevent further buildup under those conditions. Therefore, the guidance is to use anti-ice at any ram air temperature whenever icing conditions are present.

6. The white light above the wing deice switch illuminates when the wing temperature sensor senses approximately what temperature?

A. 32 degrees F

B. 212 degrees F

C. 0 degrees F

D. Approximately 140 degrees F

The indicator is tied to the wing's temperature sensor and serves as a readiness check for the wing anti-ice system. When the wing skin reaches roughly 140°F (about 60°C), the white light above the deice switch comes on to show that the heating elements have brought the leading edge up to a temperature high enough to effectively prevent ice buildup and allow continued anti-ice protection. This temperature is chosen because it's well above freezing and ensures ice won't re-form, while avoiding unnecessary overheating of the wing. The other temperatures listed aren't used as the threshold for this indicator. They don't represent the specific heat level needed for reliable ice protection, whereas 140°F is the operational target for this system.

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7. To start the right engine, the crew should first perform which action?

A. Select the engine select switch to the R position.

B. Move thrust lever to IDLE

C. Place ignition switch to STBY

D. Set HMU to idle

Starting a specific engine requires designating which engine will be started. On the Beechjet 400A, you must set the engine select switch to the right to arm and route the start sequence to that engine. This action enables the start system to deliver fuel and provide ignition to the chosen engine, so the engine can spool up and light off. Without selecting the engine, the start circuitry isn't directed to the right side, and no start will occur. After the engine is selected, the next steps—such as moving the thrust lever to IDLE to control the engine during start and ensuring ignition is available—are performed, but they rely on having the correct engine already chosen for the start. The other actions listed aren't the initiating step for starting the right engine because they don't establish which engine the start sequence should service.

8. Which statement about Synthetic Type II replenishment is true?

A. A maximum of four quarts per engine in 200 hour period

B. A maximum of two quarts per engine in any 400 hour period

C. No replenishment allowed

D. Only mineral oil may be used.

The key idea here is that Synthetic Type II engine oil has a defined replenishment limit for the Beechjet 400A: you may add up to two quarts per engine within any 400-hour period. This cap helps keep the oil level within specification without overfilling, and aligns with typical oil consumption ranges so the system remains balanced and reliable. If more than two quarts are needed within that window, it usually signals abnormal oil loss or a leak and should prompt investigation rather than continuing to top up. Remember, this question refers to Synthetic Type II oil replenishment, so using mineral oil for replenishment would not be appropriate.

9. If the right load bus loses power and No.1 inverter has also failed, from which source does No.2 inverter receive power?

A. RH load bus

B. Emergency bus

C. Battery

D. External power

The question tests how backup power is routed to keep essential systems alive when normal power paths fail. In the Beechjet 400A, the Emergency Bus is designed to provide power to critical equipment and to feed the No.2 inverter when normal feeds are lost. If the right load bus drops out and No.1 inverter is also failed, the No.2 inverter can draw its DC supply from the Emergency Bus, allowing it to still generate AC power for the essential loads. External power or the battery aren't the active sources for No.2 inverter in this fault scenario; the emergency bus is the intended source to maintain essential operation.

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10. If the LH engine fire ON light illuminates and the fire bell audible warning sounds, the pilot should first do what?

A. Move the LH thrust lever to IDLE

B. Move the LH thrust lever to CUTOFF

C. Push the LH engine fire button

D. Push the fire bottle

When an engine fire warning occurs, the first priority is to starve the fire by reducing fuel to the affected engine and slowing it down. Moving the left thrust lever to IDLE accomplishes this quickly, cutting fuel flow and bringing the engine RPM down to a safe level so the fire is less likely to grow and the airplane remains controllable. After the engine is at IDLE, the next steps would be to isolate the engine and discharge the extinguishing agent as required (typically by pressing the engine fire button and then deploying the bottle). Pushing the fire bottle or selecting CUTOFF before reducing thrust isn't the preferred first action because initiating fuel isolation and extinguishment while the engine is still at high thrust can be less effective and riskier.

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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://beechjet400actsys.examzify.com

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

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