T-38 TREATISE SHOOTER 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.

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 is the required spacing between aircraft on final?

A. 3000′ spacing

B. 6000′ spacing

C. 4500′ spacing

D. 8000′ spacing

2. What is the Flight Lead responsible for?

A. Safe and effective conduct of mission

B. Maintaining radio discipline

C. Navigating and re-sequencing

D. Fuel management only

3. In Extended Trail, what power settings are used by Offender and Defender?

A. Offender: 550 deg C EGT; Defender: 600 deg C EGT

B. Offender: 600 deg C EGT; Defender: 550 deg C EGT

C. Offender: 650 deg C; Defender: 550 deg C EGT

D. Offender: 600 deg C; Defender: 500 deg C

4. For an instrument climb, power settings between ___% and ___% rpm will provide comfortable climb rates at 300 kts for intermediate level-offs.

A. 75-80%

B. 85-90%

C. 90-95%

D. 95-100%

5. Which sensors on the EED require AC power?

A. Oil pressure, fuel flow, fuel quantity

B. Oil pressure, fuel temperature, engine RPM

C. Air data, fuel quantity, oil temperature

D. Hydraulic pressure, fuel flow, oil quantity

6. If HUD fuel reading differs from EED, how many pounds difference is allowed before EED is considered correct?

A. 0 pounds

B. 5 pounds

C. 20 pounds

D. 50 pounds

7. Who holds the ultimate responsibility for the flight in a standard flight leadership structure?

A. The Wingman

B. Admin Lead

C. Flight Lead

D. Nav Lead

8. Can you taxi the T-38 single-engine? Can you exit the runway single-engine if you have downside hydraulics or the landing gear is pinned (barring no greater emergency)?

A. Yes, yes

B. No, yes

C. Yes, no

D. No, no

9. If an EED overtemperature occurs, EED brightness is reduced by ____% (Day Mode Only) and 'EED HOT' is displayed in the EED message window.

A. 25% and EED HOT

B. 75% and EED HOT

C. 50% and EED HOT

D. 50% and EED COLD

10. With gear down and full flaps, at low altitudes below 220 KCAS, what is the approximate fuel burn per minute and per nautical mile?

A. 60 lbs/min. 10-15 lbs/NM

B. 40 lbs/min. 5-8 lbs/NM

C. 80 lbs/min. 20-25 lbs/NM

D. 50 lbs/min. 8-12 lbs/NM

Answers

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

Explanations

1. What is the required spacing between aircraft on final?

A. 3000' spacing

B. 6000' spacing

C. 4500' spacing

D. 8000' spacing

Spacing on final is about keeping enough separation between aircraft as they close in on the runway so the trailing pilot can safely manage energy, maintain the proper flight path, and have time to react to any lead maneuver or go-around. Six thousand feet provides a buffer for wake turbulence and gives the trailing aircraft room to establish and maintain a stabilized approach without crowding the lead. Smaller spacing, like three thousand feet, increases the risk of wake interference and insufficient room to adjust if the lead slows, changes pitch, or goes around. Larger spacing, such as eight thousand feet, is not typically required and reduces traffic throughput without added safety in this context.

2. What is the Flight Lead responsible for?

A. Safe and effective conduct of mission

B. Maintaining radio discipline

C. Navigating and re-sequencing

D. Fuel management only

The main idea is that the Flight Lead has the overall responsibility for guiding the mission to a safe and successful conclusion. This means setting the plan, maintaining situational awareness, assigning tasks, keeping formation integrity, avoiding conflicts with other airspace or aircraft, and making timely decisions to keep the flight on track. Radio discipline, navigation, and fuel considerations are all essential tools and parts of executing the mission, but they support the overarching duty rather than define it. The Flight Lead is the one responsible for the safe and effective conduct of the mission as a whole.

3. In Extended Trail, what power settings are used by Offender and Defender?

A. Offender: 550 deg C EGT; Defender: 600 deg C EGT

B. Offender: 600 deg C EGT; Defender: 550 deg C EGT

C. Offender: 650 deg C; Defender: 550 deg C EGT

D. Offender: 600 deg C; Defender: 500 deg C

Extended Trail centers on energy management between the follower and leader. In this drill the Offender holds MIL-level thrust at 600 deg C EGT to preserve energy and keep the pursuit challenging, while the Defender flies at 550 deg C EGT to stay in contact without letting energy bleed away too quickly. This pairing creates a realistic dynamic: the Offender maintains the energy advantage, and the Defender must work to close the gap or stay in position within safe limits. Other options mix up the values or use out-of-range levels, which would alter the drill's balance. For example, using a higher power than standard would give the Defender an unfair edge or push the engine beyond typical MIL limits, while using a much lower setting would make it hard to maintain trailing contact. The 600 C for the Offender and 550 C for the Defender reflect the standard Extended Trail configuration.

4. For an instrument climb, power settings between ___% and ___% rpm will provide comfortable climb rates at 300 kts for intermediate level-offs.

A. 75-80%

B. 85-90%

C. 90-95%

D. 95-100%

When climbing in instruments at a high cruise speed, you want enough thrust to produce a steady, comfortable rate of climb without making the aircraft hard to control or causing the speed to run away. The window around 90% to 95% rpm hits that balance. It gives you enough excess power to maintain a gentle climb at 300 knots while still being easy to hold through level-offs and small throttle adjustments. Setting too low power, like 75%–80%, often won't yield a meaningful positive rate at this speed, so level-offs become difficult and you may stall or lose the ability to maintain the climb. Pushing up into 95%–100% gives near-max thrust, which can produce a faster climb but reduces fine control during level-offs and increases engine strain and the risk of overspeed or overshoot if you're not careful. So the 90%–95% range provides the most controllable, comfortable climb performance at 300 knots for intermediate level-offs.

5. Which sensors on the EED require AC power?

A. Oil pressure, fuel flow, fuel quantity

B. Oil pressure, fuel temperature, engine RPM

C. Air data, fuel quantity, oil temperature

D. Hydraulic pressure, fuel flow, oil quantity

In the EED, some sensor transducers are designed to be excited by alternating current. That AC excitation is used because it suits certain sensing methods (like capacitive or inductive types) and it helps with signal conditioning, noise rejection, and multiplexing within the display system. The sensors that rely on AC excitation are the ones that convert a physical quantity into a signal by those transduction methods, so they require AC power to operate correctly. The oil pressure, fuel flow, and fuel quantity sensors are the ones that use AC-powered transducers in this setup. Their sensing elements are such that AC excitation is used to generate or process the signal that the EED reads, whether through inductive, capacitive, or AC-pulsed signaling techniques. That's why they're listed as requiring AC power. Other sensors in the system—such as those tied to air data or engine speed, temperature, or hydraulic pressure—typically use DC excitation or produce DC outputs within the EED architecture, so they don't require AC power in this context.

6. If HUD fuel reading differs from EED, how many pounds difference is allowed before EED is considered correct?

A. 0 pounds

B. 5 pounds

C. 20 pounds

D. 50 pounds

The key idea is that the primary fuel quantity readout (EED) is the value you rely on for decision-making, while the HUD reading is a secondary display that can diverge a bit due to sensor placement, lag, or display smoothing. A small difference between HUD and EED is allowed because these readings aren't perfectly synchronized, and minor offsets are expected from calibration and density effects. The acceptable margin is twenty pounds; within this range you treat the EED value as the correct one for planning and in-flight decisions. If the discrepancy exceeds twenty pounds, you should re-check or verify the fuel quantity through other means rather than relying on the HUD. Smaller tolerances like zero or five pounds aren't consistent with typical cockpit instrumentation allowances, and a much larger tolerance like fifty pounds would risk misjudging remaining endurance.

7. Who holds the ultimate responsibility for the flight in a standard flight leadership structure?

A. The Wingman

B. Admin Lead

C. Flight Lead

D. Nav Lead

In a standard flight leadership structure, the Flight Lead holds ultimate responsibility for the flight. This person is accountable for safety and mission success, sets the flight plan and tempo, and has the final authority on actions during training or in-flight contingencies. Sub-leads like the Nav Lead or Admin Lead handle their specific areas but report to the Flight Lead and do not override their decisions. The Wingman follows the Flight Lead's direction, maintaining proper spacing and readiness, while the Flight Lead weighs input from the sub-leads and makes the final call. If conditions change, it's the Flight Lead who decides the best course of action and communicates it to the team.

8. Can you taxi the T-38 single-engine? Can you exit the runway single-engine if you have downside hydraulics or the landing gear is pinned (barring no greater emergency)?

A. Yes, yes

B. No, yes

C. Yes, no

D. No, no

On the ground, a T-38 relies on hydraulic-assisted control and balanced thrust for stable directional control. When you have only one engine producing thrust, the remaining engine creates a strong yaw moment that is very hard to counter at taxi speeds with the rudder and nosewheel steering. That asymmetric thrust makes safe taxiing on a single engine unsafe, so moving the airplane with one engine is not approved. If you have a downside hydraulic fault or the landing gear is pinned, your ability to control the airplane is reduced in certain ways, but the priority shifts to getting the airplane safely off the active runway. In those situations, you can still use your available power to steer and exit the runway to a safe area; once clear of the runway, you can secure the aircraft. If there's any greater emergency, you would follow the appropriate higher-priority procedures.

9. If an EED overtemperature occurs, EED brightness is reduced by ____% (Day Mode Only) and 'EED HOT' is displayed in the EED message window.

A. 25% and EED HOT

B. 75% and EED HOT

C. 50% and EED HOT

D. 50% and EED COLD

When the EED overheats, the system protects itself by dimming the display and signaling the condition. In Day Mode, the brightness is cut to 50% so the screen remains legible without generating extra heat, while the EED HOT message is shown in the EED message window to clearly alert you that the display is overheated. This combination—50% brightness and the EED HOT indicator—is the defined response for an EED overtemperature in Day Mode. The other options don't fit because they either use a different dimming percentage or the wrong alert text (EED COLD would not be shown when the EED is hot). Remember, this behavior is specified for Day Mode; the important part here is the HOT alert paired with half brightness.

10. With gear down and full flaps, at low altitudes below 220 KCAS, what is the approximate fuel burn per minute and per nautical mile?

A. 60 lbs/min. 10-15 lbs/NM

B. 40 lbs/min. 5-8 lbs/NM

C. 80 lbs/min. 20-25 lbs/NM

D. 50 lbs/min. 8-12 lbs/NM

On approach, with gear down and full flaps, the airplane sits in a high-drag, low-speed regime. In this configuration the engines still provide enough thrust to hold the slower approach speed, so the total fuel flow is relatively steady and falls in a range around sixty pounds per minute for both engines combined. At speeds under 220 KCAS, you cover about 3.5 nautical miles each minute, so the fuel burned per nautical mile ends up in the teen-pounds-per-NM range. The choice that lists roughly 60 pounds per minute and about 10-15 pounds per nautical mile best matches that expected relationship and rounding used in the treatise.

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://t38treatiseshooter.examzify.com

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