T-6B Systems 2 Practice Test (Sample)

Study Guide

Everything you need from our exam experts!

Table of Contents

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. Which switch must be set to ON to allow external power in the aircraft?

A. Generator

B. Auxiliary battery

C. Battery

D. Avionics master

2. What does the term "free turbine" mean in the context of the aircraft's engine?

A. Air flow from the compressor does not drive the power turbine, as they are physically connected

B. Air flow from the compressor drives the power turbine, as they are not physically connected

C. This is where the free air temperature is measured

D. Air flow from the lower air inlet cowling drives the power turbine

3. What does the propeller governor primarily regulate?

A. propeller speed

B. fuel flow

C. engine RPM

D. engine temperature

4. What is the result if the fuel filter is completely clogged?

A. Fuel will overflow

B. Fuel will bypass the filter

C. The engine will flame out

D. The engine will continue operating normally

5. In the event of an out of limits torque indication, the EICAS display will warn the pilot of all of the following methods, EXCEPT _____.

A. A change in color of the torque reading

B. Flashing MASTER CAUT switchlight

C. An aural tone

D. Flashing MASTER WARN switchlight

6. What is the main purpose of the oil system in the T-6B?

A. to cool the engine

B. to seal combustion chambers

C. to lubricate engine components

D. to power accessories

7. What action occurs when fuel level in a tank falls below the set threshold?

A. The fuel pump shuts down

B. The low fuel light is activated

C. The engine automatically shuts down

D. The fuel lines are vented

8. Which type of warning message indicates low fuel pressure?

A. Caution message

B. Warning message

C. Advisory message

D. Critical message

9. The generator output provides how many volts DC and how many amps?

A. 24; 300

B. 24; 1000

C. 28; 300

D. 28; 10000

10. What indicates a problem in the cockpit differential pressure?

A. Red CKPT PX warning

B. Green CKPT PX light

C. Yellow system warning

D. Blue altitude indicator

Answers

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

Explanations

1. Which switch must be set to ON to allow external power in the aircraft?

A. Generator

B. Auxiliary battery

C. Battery

D. Avionics master

The choice of the battery switch being set to ON is crucial for allowing external power into the aircraft because it serves as the primary source of electrical power when the aircraft is on the ground. When the battery switch is activated, it connects the aircraft's electrical systems to the external power source, enabling the flow of power from ground support equipment or external power units. This connection is necessary to power the aircraft's electrical systems for maintenance, pre-flight checks, and other ground operations without relying solely on the onboard generators. Other switches, such as the generator, auxiliary battery, and avionics master, play important roles in the aircraft's power management but are not directly responsible for enabling external power. The generator switch is utilized during flight to manage the generator's output, the auxiliary battery provides back-up power in certain scenarios, and the avionics master controls the power to the avionics systems specifically. However, none of these can replace the need for the battery switch to be ON for external power access.

2. What does the term "free turbine" mean in the context of the aircraft's engine?

A. Air flow from the compressor does not drive the power turbine, as they are physically connected

B. Air flow from the compressor drives the power turbine, as they are not physically connected

C. This is where the free air temperature is measured

D. Air flow from the lower air inlet cowling drives the power turbine

The term "free turbine" refers to a specific configuration in gas turbine engines, particularly where the power turbine is not directly connected to the compressor. In this context, air flow from the compressor does drive the power turbine, but they are not physically linked as they are in some other engine designs, such as a traditional geared turbine engine. This allows the power turbine to operate independently of the compressor's rotational speed, leading to several operational advantages. This design enables the engine to produce power more efficiently across a range of speeds and conditions, as the power turbine can optimize its performance without being constrained by the compressor speed. The independent operation allows for greater flexibility in engine management, particularly during different flight regimes or when the aircraft requires varying amounts of thrust. The other options do not accurately describe the characteristics and function of a free turbine system. For example, claiming that air flow from the compressor drives the power turbine while they are physically connected contradicts the definition of a free turbine. Additionally, options suggesting measurements of free air temperature or airflow from the lower air inlet cowling do not pertain to the mechanical and operational principles of the free turbine concept.

3. What does the propeller governor primarily regulate?

A. propeller speed

B. fuel flow

C. engine RPM

D. engine temperature

The propeller governor primarily regulates propeller speed to ensure optimal performance and efficiency during flight. It automatically adjusts the blade pitch of the propeller based on the engine demand and flight conditions, maintaining the desired RPM of the propeller. This regulation is crucial for various stages of flight, including takeoff, climb, cruise, and landing, as it allows the pilot to maintain the appropriate thrust while minimizing drag and optimizing fuel efficiency. In contrast, fuel flow is managed by the fuel control system rather than the propeller governor. Similarly, engine RPM is primarily influenced by the engine control system and the throttle settings. Engine temperature is monitored by various sensors and systems, but it is not directly regulated by the propeller governor, which focuses specifically on managing propeller performance rather than overall engine parameters.

4. What is the result if the fuel filter is completely clogged?

A. Fuel will overflow

B. Fuel will bypass the filter

C. The engine will flame out

D. The engine will continue operating normally

If the fuel filter is completely clogged, the most likely result is that the engine will flame out. A fuel filter's primary function is to remove impurities and debris from the fuel before it reaches the engine. When this filter becomes completely blocked, it can prevent fuel from reaching the engine altogether. An engine requires a constant supply of fuel to maintain combustion; if this supply is interrupted, the engine will lose power and may completely shut down, leading to a flameout. This situation can critically impact the engine's performance, especially in flight. In a T-6B or similar aircraft, a flameout emphasizes the importance of maintaining fuel system integrity and monitoring fuel filters regularly to ensure they are not clogged. Other options depict scenarios that are either unlikely or not correct; for example, an overflowing fuel situation would occur if there's an issue upstream that overpressurizes the fuel system, and bypassing the filter would not happen as a result of total blockage. Continuing to operate normally contradicts the very purpose of fuel delivery; if fuel is blocked, combustion cannot be sustained.

5. In the event of an out of limits torque indication, the EICAS display will warn the pilot of all of the following methods, EXCEPT _____.

A. A change in color of the torque reading

B. Flashing MASTER CAUT switchlight

C. An aural tone

D. Flashing MASTER WARN switchlight

The reason the correct answer is that the EICAS (Engine Indication and Crew Alerting System) display does not utilize a flashing MASTER CAUT switchlight to indicate out of limits torque is that the MASTER CAUT switchlight is designed to signal cautionary messages, which typically involve non-immediate threats or issues that require attention but may not necessitate immediate action. In the case of out of limits torque indications, the system prioritizes more urgent alerts. The other methods listed, such as a change in color of the torque reading, an aural tone, and a flashing MASTER WARN switchlight, are all indicative of a more serious or immediate condition requiring the pilot's attention. The change in color serves as a visual alarm that the parameters have exceeded acceptable limits, the aural tone provides an audible warning that alerts the pilot to the anomaly, and the flashing MASTER WARN switchlight is designed for critical emergencies, demanding prompt recognition and action. Thus, the absence of a flashing MASTER CAUT switchlight for this particular situation aligns with the intended function of these warning systems, focusing on immediate threats with more pronounced alerts.

6. What is the main purpose of the oil system in the T-6B?

A. to cool the engine

B. to seal combustion chambers

C. to lubricate engine components

D. to power accessories

The primary function of the oil system in the T-6B is to lubricate engine components. Proper lubrication is essential for reducing friction and wear between moving parts within the engine, which helps to ensure its efficient operation and longevity. The oil creates a protective film on the engine components, allowing them to move smoothly against each other, which minimizes heat generation and prevents damage. While cooling the engine is also important for its performance, that is not the main purpose of the oil system; instead, the cooling is typically managed through a separate cooling system. Sealing combustion chambers is primarily achieved through components such as gaskets and piston rings, rather than the oil itself. Powering accessories is a function accomplished by the generator and battery systems, rather than through the oil lubrication system. Thus, the oil system is fundamentally designed to facilitate lubrication, making it vital for the safe and effective operation of the engine.

7. What action occurs when fuel level in a tank falls below the set threshold?

A. The fuel pump shuts down

B. The low fuel light is activated

C. The engine automatically shuts down

D. The fuel lines are vented

When the fuel level in a tank falls below a predetermined set threshold, the low fuel light is activated. This system serves as an important warning mechanism to inform the pilot that the fuel level has dropped to a point where it could impact the operation of the aircraft. The activation of the low fuel light provides an early alert, allowing the pilot to take necessary action, such as preparing for landing or refueling before the situation becomes critical. In contrast, shutting down the fuel pump or the engine automatically, or venting the fuel lines, are not standard responses to a low fuel condition. Each of those scenarios addresses different operational issues or failure modes rather than simply indicating a low fuel state. The primary function of the low fuel light is to provide a simple and effective warning system for the pilot's situational awareness rather than initiating immediate shutdown procedures.

8. Which type of warning message indicates low fuel pressure?

A. Caution message

B. Warning message

C. Advisory message

D. Critical message

A warning message is designated to indicate conditions that require immediate attention to ensure safety and proper functioning of the aircraft systems. In this case, low fuel pressure is a critical condition that can lead to engine performance issues or a total engine failure if not addressed swiftly. The purpose of a warning message is to alert the pilot to a potentially serious situation that requires prompt action. Therefore, when low fuel pressure occurs, a warning message is activated to prompt the pilot to take the necessary precautions, such as checking fuel levels, switching fuel systems, or preparing for a possible emergency landing. Caution messages, on the other hand, alert the pilot to systems or conditions that require attention but do not necessarily indicate an immediate threat. Advisory messages provide supplemental information that may be useful but does not require immediate pilot action. Critical messages can vary but often refer to situations that are extremely hazardous. Overall, the classification of the low fuel pressure message as a warning is rooted in its significance to flight safety and the need for timely response from the pilot.

9. The generator output provides how many volts DC and how many amps?

A. 24; 300

B. 24; 1000

C. 28; 300

D. 28; 10000

The generator output in the T-6B is designed to supply 28 volts DC with a capacity of 300 amps. Understanding this specification is crucial as it indicates the electrical power system's capability to support onboard systems and components. The 28-volt output is standard for many aviation equipment, providing the necessary voltage needed for various electronic devices on an aircraft. This voltage is essential for maintaining the proper functionality of avionics, lighting, and other electrical systems. The current capacity of 300 amps refers to the maximum amount of electrical current the generator can produce, accommodating the demands of multiple systems operating simultaneously. This output ensures that the aircraft can maintain operational readiness with sufficient power available for all necessary systems during various phases of flight. The values of 24 volts and higher amperage choices, although they might seem reasonable, do not match the T-6B's specified generator output parameters. This clarity supports the critical understanding of the aircraft's electrical system in practical applications, maintenance, and operation.

10. What indicates a problem in the cockpit differential pressure?

A. Red CKPT PX warning

B. Green CKPT PX light

C. Yellow system warning

D. Blue altitude indicator

The presence of a red CKPT PX warning light in the cockpit effectively indicates a problem with the differential pressure. This warning is crucial as it is designed to alert pilots to a potential issue with cabin altitude pressure or seal integrity, which can compromise safety if not addressed. When the red CKPT PX warning light illuminates, it signifies that the cockpit pressure has fallen outside of the acceptable limits, requiring immediate attention from the crew. This is especially critical in flight, where unregulated pressure can lead to hypoxia or other physiological issues for the pilots. The other options are indicative of normal operation or lesser issues: a green CKPT PX light generally signifies that the system is operating within the normal parameters, while a yellow system warning may hint at a cautionary issue that does not require immediate action. A blue altitude indicator reflects the current altitude and does not pertain to pressure issues directly. Therefore, the red CKPT PX warning light's specific association with differential pressure problems makes it the correct choice in this context.

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://t6bsys2.examzify.com

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