Avionics Electrical Technician First Class (AET1) SWE Practice Test (Sample)

Study Guide

Everything you need from our exam experts!

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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. When are fuel samples storage not required?

A. Ferry flights

B. International flights

C. Domestic flights

D. Training flights

2. Special metal foil lined packages , conductive foam , conductive plastic packages , or special shorting sockets / connectors may be used for what ?

A. Heat dissipation

B. Ensure proper shorting

C. Moisture protection

D. Color coding

3. All uninstalled serial-number tracked components must be accompanied by a current copy of which report?

A. Significant Component History Report (SCHR)

B. ASR

C. MORPT

D. CG-22

4. Identify the field commonly located at the back to capture notes.

A. Remarks

B. Repair Status

C. Warranty

D. Shipping Method

5. Who shall establish and maintain preventive maintenance programs to ensure that SE will meet projected service life requirements?

A. Commanding officer

B. Maintenance officer

C. Operations officer

D. Logistics officer

6. A TCTO master file will be maintained at each unit through what?

A. NAVMACS

B. TMAPS

C. SPECTRA

D. OMNIS

7. Fuel spills not over 10 feet in any dimension or not over 50 square feet in area and not of a continuing nature. Ramp personnel shall?

A. Inert the spill immediately

B. Stand by until the aircraft is dispatched

C. Post a fireguard upwind with foam-type or halon-type extinguisher until area is purged

D. Notify supervisor

8. Engine run-up areas are designated in accordance with what?

A. Airport procedures

B. FAA regulations

C. Manufacturer's manual

D. Local weather

9. What should anyone in the spill area do when a large spill occurs?

A. Leave at once

B. Stay and monitor

C. Return after clearance

D. Move to upwind side

10. What methods are approved for dust control in Coast Guard ALC procedures?

A. Damp mop

B. Damp wiping

C. Vacuuming with an approved HEPA filter vacuum

D. All of the above

Answers

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

Explanations

1. When are fuel samples storage not required?

A. Ferry flights

B. International flights

C. Domestic flights

D. Training flights

Fuel sampling is a quality control practice used to verify fuel integrity and to trace contamination back to a source if a problem arises. In typical revenue operations, especially international or domestic flights and training flights, there are multiple fueling events, different lots or suppliers, and formal documentation requirements that keep a sample on hand for a set period. Ferry flights are simply a move from one base to another with minimal fueling activity and usually a single fuel lot from a known supplier. Because there's no ongoing revenue service or complex fueling chain to document, retaining a fuel sample isn't required for that one leg.

2. Special metal foil lined packages , conductive foam , conductive plastic packages , or special shorting sockets / connectors may be used for what ?

A. Heat dissipation

B. Ensure proper shorting

C. Moisture protection

D. Color coding

These packaging methods are used to keep electrostatic-sensitive components at a defined electrical potential during handling, storage, and testing. By using metal foil liners, conductive foam, conductive plastic, or shorting sockets/connectors, a safe, known reference is established for the device's leads, typically tying them to ground or to a common potential. This drains static electricity and prevents floating pins from picking up charges that could cause ESD damage or latch-up, and it also ensures that when the device is plugged into test equipment, the pins are properly shorted as required for safe and accurate testing. Other options aren't the primary purpose here—heat dissipation would rely on different heat-management methods, moisture protection uses barrier materials and desiccants, and color coding is about identification.

3. All uninstalled serial-number tracked components must be accompanied by a current copy of which report?

A. Significant Component History Report (SCHR)

B. ASR

C. MORPT

D. CG-22

For any serial-number tracked component that isn't installed, you must have a current copy of the Significant Component History Report. This document captures the component's life history—inspections, repairs, modifications, replacements, and service time—so maintenance personnel can verify its eligibility for reuse and confirm it has been maintained within required intervals. Having the SCHR on hand ensures proper traceability and airworthiness when the part is reinstalled or transferred. The other reports listed don't serve this specific purpose of documenting the complete life history and current status of significant components.

4. Identify the field commonly located at the back to capture notes.

A. Remarks

B. Repair Status

C. Warranty

D. Shipping Method

Capturing notes is handled by a free-form Remarks field placed toward the back of a form. This location keeps the main, structured data clean and scannable while still giving technicians a dedicated space to add narrative information. Remarks is where you can jot down observations, troubleshooting steps, special instructions, or clarifications that don't fit into other specific fields. In avionics maintenance records, that extra context is crucial for understanding decisions and actions later on. The other fields are meant for fixed data: repair status indicates the current stage of work, warranty holds policy details, and shipping method covers logistics—none are intended for free-form notes.

5. Who shall establish and maintain preventive maintenance programs to ensure that SE will meet projected service life requirements?

A. Commanding officer

B. Maintenance officer

C. Operations officer

D. Logistics officer

The main idea is that the person in overall command is responsible for material readiness and maintenance policy, including preventive maintenance programs. The commanding officer sets the policy, allocates resources, and provides the authority to establish and sustain a preventive maintenance program so that equipment and SE meet their projected service life. The maintenance officer then implements and oversees the day-to-day execution of that program, ensuring inspections, scheduling, and tasks are carried out. The operations officer focuses on mission planning and execution, while the logistics officer handles supply and support. They support maintenance, but the authority to establish and maintain the PM program lies with the commanding officer.

6. A TCTO master file will be maintained at each unit through what?

A. NAVMACS

B. TMAPS

C. SPECTRA

D. OMNIS

This tests where you keep and manage the TCTO master file. The unit-level TCTO master file is maintained in the TMAPS system, the automated tool designed specifically for tracking Time Compliance Technical Orders from issue through completion. Using TMAPS at each unit provides immediate visibility for the local maintenance team, allows you to log status updates, due dates, and required actions, and keeps documentation readily available for audits and reporting. Other systems like NAVMACS, SPECTRA, and OMNIS serve different maintenance or information-tracking purposes, so they aren't used for maintaining the TCTO master file.

7. Fuel spills not over 10 feet in any dimension or not over 50 square feet in area and not of a continuing nature. Ramp personnel shall?

A. Inert the spill immediately

B. Stand by until the aircraft is dispatched

C. Post a fireguard upwind with foam-type or halon-type extinguisher until area is purged

D. Notify supervisor

Small, contained fuel spills on the ramp require active protection against ignition and careful vapor control. The best action is to establish a fireguard around the spill upwind and have a foam-type or halon-type extinguisher ready to act until the area is purged. Placing the guard upwind reduces the chance vapors reach people, and the selected extinguishers are effective for hydrocarbon fuels, providing cooling and smothering to prevent ignition. Purging the area ensures remaining vapors dissipate and the risk of rekindling drops. Inerting the spill isn't the standard approach for a small surface spill, waiting for aircraft dispatch delays safety, and simply notifying a supervisor doesn't address the immediate ignition hazard.

8. Engine run-up areas are designated in accordance with what?

A. Airport procedures

B. FAA regulations

C. Manufacturer's manual

D. Local weather

Run-up areas are defined by airport procedures because the airport operator must designate safe, practical locations for high-thrust engine testing, taking into account debris clearance, blast effects, noise, and proximity to other operations. These local procedures specify the exact area and requirements, aligned with the broader safety framework overseen by the FAA. The manufacturer's manual covers how to perform engine tests, not where they may be conducted. Local weather can influence whether a run-up is performed, but it does not determine the designated location.

9. What should anyone in the spill area do when a large spill occurs?

A. Leave at once

B. Stay and monitor

C. Return after clearance

D. Move to upwind side

Immediate evacuation is the best course because large spills can release hazardous vapors and ignite suddenly. Getting away from the spill area quickly minimizes exposure to toxic fumes, skin contact, or fire risk, which can spread or intensify faster than you can react if you stay. Staying to monitor or waiting for a clearance assumes the area is safe, which isn't guaranteed in the moment. Moving to the upwind side might reduce exposure, but it doesn't guarantee safety and still keeps you near the hazard. Leaving at once removes you from danger and is the correct first action.

10. What methods are approved for dust control in Coast Guard ALC procedures?

A. Damp mop

B. Damp wiping

C. Vacuuming with an approved HEPA filter vacuum

D. All of the above

Dust control in Coast Guard ALC procedures centers on preventing dust from becoming airborne by using moisture and effective filtration. Damp mopping adds moisture to the cleaning path, causing dust to be trapped rather than kicked up. Damp wiping uses a damp cloth to physically capture dust from surfaces, reducing resuspension. Vacuuming with an approved HEPA filter vacuum removes and contains fine particles without blowing them back into the air. The procedures authorize all of these approaches, so you can use any of them as appropriate for the task and surface. Together, they cover the main ways to minimize airborne dust during cleaning.

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://aet1swe.examzify.com

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