

AVIONICS ELECTRICAL TECHNICIAN FIRST CLASS (AET1) SWE 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

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- 1. For all engine starts on MH-60 and MH-65, how many people shall be in the cockpit?**
 - A. 0
 - B. 2
 - C. 1
 - D. 3
- 2. What gauge wire is specified for the personnel ground device?**
 - A. #18 standard copper insulated wire
 - B. #22 standard copper insulated wire
 - C. #16 standard copper insulated wire
 - D. #20 standard copper insulated wire
- 3. Proposed changes to aircraft software shall be submitted to ACCB.**
 - A. OEM
 - B. ACCB
 - C. FAA
 - D. NAVAIR
- 4. What is the ALC's mission?**
 - A. To provide flight training
 - B. To perform research and development
 - C. To provide depot level maintenance, engineering, supply and information services to support Coast Guard Missions
 - D. To manage aviation safety programs
- 5. Which type material covers aeronautical support equipment costing more than \$250 but less than \$3500, with initial provisioning by ALC but no subsequent replacement?**
 - A. Type 1
 - B. Type 2
 - C. Type 5
 - D. Type 6

- 6. Introduction of Fuel System Icing Inhibitor will lower the JP-5 flash point by 4 degrees Fahrenheit and will also inhibit what?**
- A. Growth of bacteria
 - B. Corrosion in fuel lines
 - C. Formation of varnish
 - D. Water contamination
- 7. Aeronautical material for which ALC has serviceable support responsibility, with a unit price of \$250 or more, procured from a commercial source, flight critical, and reparable is which type material?**
- A. Type 1
 - B. Type 3
 - C. Type 2
 - D. Type 4
- 8. Generally who is desirable and should be used for water recovery of Coast Guard helicopters?**
- A. Commercial or other military service resources
 - B. Local towing companies
 - C. Private divers
 - D. Coast Guard boats
- 9. Grounding requirements for portable electronic test equipment are specified by which code?**
- A. National Electrical Safety Code
 - B. National Electrical Code
 - C. International Safety Code
 - D. American Safety Standard
- 10. During fueling or spill, electric cargo trucks must maintain at least how many feet from aircraft?**
- A. 10 feet
 - B. 50 feet
 - C. 30 feet
 - D. 20 feet

Answers

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

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Explanations

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1. For all engine starts on MH-60 and MH-65, how many people shall be in the cockpit?

- A. 0
- B. 2
- C. 1**
- D. 3

During engine start, the person at the controls is responsible for managing the start and watching engine parameters closely. For MH-60 and MH-65, only one person shall be in the cockpit during the start. This keeps the start sequence simple, ensures clear responsibility for monitoring N1/N2, ITT, rotor speed, and fuel flow, and reduces the risk of conflicting inputs or distractions during this critical phase. If a second crew member is needed for other tasks, they can assist from the cabin or outside once the engines are stable and the start is complete. Having the cockpit occupied by a single crewmember focuses attention and actions where they're most needed, which is essential for a safe, controlled start.

2. What gauge wire is specified for the personnel ground device?

- A. #18 standard copper insulated wire
- B. #22 standard copper insulated wire
- C. #16 standard copper insulated wire
- D. #20 standard copper insulated wire**

When working on avionics, you want a ground path that safely removes static charge from you quickly without making the ground cord bulky or hard to handle. A 20 AWG copper insulated wire hits that balance: it's small and flexible enough to use as a personnel ground device, yet it has enough conductivity to provide a reliable, low-impedance path for static discharge and any incidental current, meeting typical safety expectations in a maintenance environment. Using a thicker wire like 16 or 18 would add unnecessary bulk, while a thinner option like 22 would have higher resistance and could slow discharge or fail to meet the specified safety requirements. So 20 AWG is the standard that best fits both practicality and the needed grounding performance.

3. Proposed changes to aircraft software shall be submitted to ACCB.

- A. OEM
- B. ACCB**
- C. FAA
- D. NAVAIR

Introducing proposed software changes to the ACCB ensures they pass through the official certification and configuration-control process before being implemented on Navy aircraft. The ACCB reviews the modification for compatibility with the current software baseline, safety implications, required testing, and proper documentation, and then approves or rejects the change for fleet use. This centralized authority maintains airworthiness and fleet interoperability. The OEM develops the software, but navy internal changes go through ACCB rather than the FAA, which handles civilian airworthiness; NAVAIR oversees programs and requirements but the formal submission for approval sits with ACCB.

4. What is the ALC's mission?

- A. To provide flight training
- B. To perform research and development
- C. To provide depot level maintenance, engineering, supply and information services to support Coast Guard Missions**
- D. To manage aviation safety programs

The Aviation Logistics Center functions as the central logistics and sustainment hub for Coast Guard aviation. Its mission is to keep aircraft mission-ready by providing depot-level maintenance (the major overhauls and repairs done at centralized facilities), engineering support (technical data, engineering changes, and system troubleshooting), supply (parts, materials, and spares), and information services (maintenance and logistics data, tracking, and IT systems) to support Coast Guard missions. This combination directly supports readiness and availability of the aircraft across the fleet, which is what keeps operations running when they're needed. Flight training is handled by training commands, not the ALC. Research and development is conducted by dedicated labs and R&D programs, not the ALC's logistics role. Managing aviation safety programs is typically the responsibility of safety offices and related command structures, not the ALC's depot, engineering, and supply focus.

5. Which type material covers aeronautical support equipment costing more than \$250 but less than \$3500, with initial provisioning by ALC but no subsequent replacement?

- A. Type 1
- B. Type 2
- C. Type 5
- D. Type 6**

This question tests how aeronautical support equipment is categorized by cost and provisioning method. For items with a unit cost between \$250 and \$3,500 that are provisioned in the initial fielding package by the Aviation Logistics Center and are not scheduled for routine replacement, the management category used is the one assigned to that lifecycle path. This approach keeps mid-range, non-replenishable ASE available at start without creating ongoing reordering cycles. In practice, items within this price band are issued during initial provisioning and aren't automatically replaced during normal operation, striking a balance between upfront availability and lower long-term stock costs. Other categories cover different price ranges or different replacement/replenishment policies, so they don't fit this specific combination of cost, provisioning, and non-replacement.

6. Introduction of Fuel System Icing Inhibitor will lower the JP-5 flash point by 4 degrees Fahrenheit and will also inhibit what?

- A. Growth of bacteria**
- B. Corrosion in fuel lines
- C. Formation of varnish
- D. Water contamination

Fuel System Icing Inhibitor used with JP-5 provides two benefits: it lowers the point at which fuel vapors can ignite and it has antimicrobial properties that suppress microbial growth in the fuel system. The presence of moisture in tanks can support bacteria and other microorganisms, which form slime and biofilms that clog filters and fuel lines. The additive's components help inhibit those bacteria, making the fuel system cleaner and easier to maintain. While corrosion control, varnish formation, and water management are important in fuel handling, the question highlights the antimicrobial effect provided by FSI, which is why growth of bacteria is the best answer.

7. Aeronautical material for which ALC has serviceable support responsibility, with a unit price of \$250 or more, procured from a commercial source, flight critical, and reparable is which type material?

- A. Type 1
- B. Type 3
- C. Type 2**
- D. Type 4

The item fits Type 2 because it is a repairable, flight-critical aeronautical material that the ALC is responsible for keeping serviceable, and it is procured from a commercial source with a unit price at or above the \$250 threshold. This combination—repairable and flight-critical with centralized ALC support and a commercial supplier—defines Type 2 material, ensuring the ALC maintains the ability to repair and supply ready-to-install units when needed. Items that aren't repairable, or aren't managed by the ALC for serviceable support, or don't meet the price threshold, would fall into the other types.

8. Generally who is desirable and should be used for water recovery of Coast Guard helicopters?

- A. Commercial or other military service resources**
- B. Local towing companies
- C. Private divers
- D. Coast Guard boats

Water recovery of a helicopter in the sea requires assets with heavy-lift capability, aviation salvage procedures, and trained personnel to safely lift and remove the airframe from water. Commercial salvage firms and other military services routinely perform aircraft recoveries, bringing crane barges, lifting rigs, certified divers, and environmental containment measures. They can respond quickly, coordinate with the Coast Guard, and apply established methods to secure and recover the helicopter while minimizing risk to rescuers and the environment. Local towing companies generally don't have the heavy-lift gear or aviation-specific salvage procedures. Private divers may lack the necessary equipment and safety controls for aircraft salvage and could introduce additional risks. Coast Guard boats can handle smaller recoveries and initial scene control, but they typically don't provide the scale of equipment and specialized expertise required for recovering a large helicopter from water.

9. Grounding requirements for portable electronic test equipment are specified by which code?

A. National Electrical Safety Code

B. National Electrical Code

C. International Safety Code

D. American Safety Standard

Grounding for portable electronic test equipment is governed by the National Electrical Code. The NEC sets the safety rules for electrical installations and equipment grounding, including how portable gear should be grounded to create a low-impedance path for fault currents and bond the equipment to its protective grounding conductor. This helps protect personnel from shock and ensures that overcurrent devices trip as intended. The National Electrical Safety Code deals with safety for utility distribution systems in the field, not portable test gear, while the other options are not the standards used for this purpose.

10. During fueling or spill, electric cargo trucks must maintain at least how many feet from aircraft?

A. 10 feet

B. 50 feet

C. 30 feet

D. 20 feet

During fueling or in the event of a spill, the main risk is ignition from jet-fuel vapors, static discharge, or electrical arcing near the aircraft. Keeping a generous safety buffer between the vehicle and the aircraft minimizes the chance that vapors will reach an ignition source and provides space for safe handling and emergency response. The standard minimum distance for electric cargo trucks in these operations is 50 feet. This distance helps ensure that any spilled fuel or vapor does not come into contact with potential ignition sources on the truck or with the aircraft, and it allows responders to work safely if an incident occurs. Shorter distances do not provide enough clearance for vapor drift, spill control, or safe access for emergency actions.

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!

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