

# Aviation Machinist's Mate (AD) Advancement Practice Exam (Sample)

## Study Guide



**Everything you need from our exam experts!**

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**SAMPLE**

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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 type of life raft is designed to ensure safety during inflation?**
  - A. 10-man life raft**
  - B. 20-man life raft**
  - C. 5-man life raft**
  - D. Inflatable life raft**
- 2. Which maintenance task is essential before conducting a functional check of an aircraft?**
  - A. Refueling**
  - B. Pre-flight inspection**
  - C. Structural repair**
  - D. Landing gear adjustment**
- 3. Which environmental factor is NOT included in the definition of heat stress?**
  - A. Humidity**
  - B. Air temperature**
  - C. Altitude**
  - D. Airflow**
- 4. Who sponsors and directs the Naval Aviation Maintenance Program?**
  - A. Seymour Johnson AFB**
  - B. CNO**
  - C. NAVFAC**
  - D. NAVAIR**
- 5. What is the minimum percentage of divisional safety petty officers required to attend the Safety Programs Afloat (SPA) course?**
  - A. 25%**
  - B. 35%**
  - C. 50%**
  - D. 75%**

- 6. Which day of the week are Side Boys not paraded?**
- A. Friday**
  - B. Saturday**
  - C. Sunday**
  - D. Monday**
- 7. What term describes the distance between the propeller leading and trailing edges?**
- A. Blade pitch**
  - B. Blade span**
  - C. Blade chord**
  - D. Blade area**
- 8. What tool is primarily used for gripping and turning nuts and bolts?**
- A. Wrench**
  - B. Screwdriver**
  - C. Hammer**
  - D. Pry bar**
- 9. What class of fires is associated with electrically energized equipment?**
- A. Class A**
  - B. Class B**
  - C. Class C**
  - D. Class D**
- 10. What is the purpose of maintaining Threshold Limit Values (TLVs) in the workplace?**
- A. To inform workers of potential physical hazards**
  - B. To ensure safe exposure limits to hazardous substances**
  - C. To regulate equipment usage times**
  - D. To monitor temperature and humidity levels**



## **Answers**

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

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## **Explanations**

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**1. What type of life raft is designed to ensure safety during inflation?**

- A. 10-man life raft**
- B. 20-man life raft**
- C. 5-man life raft**
- D. Inflatable life raft**

The best option that ensures safety during inflation is the inflatable life raft. Inflatable life rafts are specifically designed with features that promote safe and effective inflation. They typically come equipped with built-in inflation mechanisms that utilize compressed gas or manual inflation methods which allow for rapid deployment. This design minimizes risks associated with the inflation process, such as the potential for the raft to tip over or not inflate properly. Furthermore, inflatable life rafts are often tested to meet specific safety standards, ensuring that they can withstand the rigors of marine environments once deployed. Their buoyancy and stability in the water further contribute to safety during and after inflation, making them a reliable choice in emergencies. While the number of individuals the raft can accommodate (like 10-man, 20-man, or 5-man) is important for determining capacity, the core aspect of safety during inflation is primarily related to the design and function of inflatable life rafts, which aim to provide a secure and stable platform for survival at sea.

**2. Which maintenance task is essential before conducting a functional check of an aircraft?**

- A. Refueling**
- B. Pre-flight inspection**
- C. Structural repair**
- D. Landing gear adjustment**

The essential maintenance task before conducting a functional check of an aircraft is the pre-flight inspection. This inspection is critical because it ensures that all systems and components of the aircraft are in proper working order before the aircraft is operated. It includes checking safety items, fluid levels, aircraft systems, and a visual inspection for any visible damage or discrepancies. A thorough pre-flight inspection helps to identify any potential issues that could affect the aircraft's performance and safety during the functional check and subsequent flight operations. By confirming that all components are functioning correctly and that there are no safety hazards, the technician helps to ensure both the efficacy of the functional checks and the safety of the aircraft and crew. While refueling, structural repairs, and landing gear adjustments are important aspects of aircraft maintenance, they do not directly correlate to the immediate verification of the aircraft's operational readiness necessary before conducting functional checks.

**3. Which environmental factor is NOT included in the definition of heat stress?**

- A. Humidity**
- B. Air temperature**
- C. Altitude**
- D. Airflow**

The concept of heat stress is primarily concerned with the effects of environmental conditions on the body's ability to regulate temperature. Factors like humidity, air temperature, and airflow are directly related to how heat is managed by the human body. High humidity can prevent sweat from evaporating, which is a key cooling mechanism. Air temperature determines the degree of heat exposure, while airflow helps facilitate cooling by increasing evaporation rates. Altitude, on the other hand, does not directly influence heat stress in the same way. While altitude can affect oxygen levels and have various physiological impacts, it is not a primary factor in the thermal regulation process or how the body copes with heat. Thus, it does not fit in the typical definition of heat stress as it pertains to the body's thermal environment.

**4. Who sponsors and directs the Naval Aviation Maintenance Program?**

- A. Seymour Johnson AFB**
- B. CNO**
- C. NAVFAC**
- D. NAVAIR**

The Chief of Naval Operations (CNO) is the entity responsible for sponsoring and directing the Naval Aviation Maintenance Program. The CNO's role includes overseeing the readiness and effectiveness of the Navy's aviation forces, which encompasses the maintenance and support of aircraft. This position provides policy direction and ensures that maintenance practices align with operational requirements. In this context, the CNO plays a crucial role in establishing the framework and guidelines for maintenance procedures, ensuring that all naval aviation assets are maintained in optimal condition to support missions. The CNO also coordinates with various other commands and organizations to implement maintenance policies and best practices throughout the Navy. Other choices, while they may be involved in some aspects of aviation or maintenance, do not have the overarching responsibility for the entire Naval Aviation Maintenance Program as does the CNO.

**5. What is the minimum percentage of divisional safety petty officers required to attend the Safety Programs Afloat (SPA) course?**

- A. 25%
- B. 35%
- C. 50%**
- D. 75%

The minimum percentage of divisional safety petty officers required to attend the Safety Programs Afloat (SPA) course is 50%. This requirement is established to ensure that a sufficient number of personnel are adequately trained in safety protocols and procedures, enabling them to effectively promote and implement safety measures within their divisions. By having at least half of the divisional safety petty officers trained, the command can foster a strong safety culture, ensuring that safety practices are consistently upheld and that appropriate knowledge is available to address potential safety hazards. This level of training helps to maintain a high standard of safety and operational readiness aboard naval vessels.

**6. Which day of the week are Side Boys not paraded?**

- A. Friday
- B. Saturday
- C. Sunday**
- D. Monday

The parading of Side Boys is a ceremonial tradition in naval custom, primarily associated with the arrival and departure of high-ranking officials aboard naval vessels. This tradition is typically not observed on Sundays due to the religious significance of the day, where many service members may participate in worship or related activities, which takes precedence over ceremonial duties. Sundays are considered a day of rest and reverence in naval practice, aligning with broader cultural and religious norms. While Side Boys may be paraded on other days of the week as part of operational and ceremonial duties, exceptions for Sundays are made to respect the religious observances and personal time of personnel. In contrast, the other days of the week such as Friday, Saturday, and Monday do not hold similar restrictions. Therefore, Sunday stands out as the day when Side Boys are not paraded, making it the correct answer to the question.

**7. What term describes the distance between the propeller leading and trailing edges?**

- A. Blade pitch
- B. Blade span
- C. Blade chord**
- D. Blade area

The term that describes the distance between the propeller leading edge and trailing edge is known as the blade chord. The blade chord is essentially the width of the blade at any given point, and it is a crucial aspect of propeller design as it influences lift and drag characteristics during operation. Understanding the blade chord is important for ensuring optimal performance and efficiency of the propeller. The orientation of the leading and trailing edges defines the chord line, which is significant in aerodynamic calculations and overall propeller performance analysis.

**8. What tool is primarily used for gripping and turning nuts and bolts?**

**A. Wrench**

**B. Screwdriver**

**C. Hammer**

**D. Pry bar**

A wrench is the primary tool used for gripping and turning nuts and bolts because it is specifically designed to fit around the head of these fasteners. Wrenches have various designs, such as open-end, box-end, socket, and adjustable, which allow for better leverage and grip on different sizes of nuts and bolts. The design of a wrench enables the user to apply torque effectively, making it easier to tighten or loosen fasteners without slipping off, which can occur with other tools not intended for this purpose. In contrast, a screwdriver is primarily used for driving screws and is not suitable for tensional applications like those required for nuts and bolts. Hammers are for striking objects and are not designed to grip or turn fasteners. A pry bar is meant for levering and prying rather than for handling nuts and bolts, making a wrench the most effective and appropriate tool for this task.

**9. What class of fires is associated with electrically energized equipment?**

**A. Class A**

**B. Class B**

**C. Class C**

**D. Class D**

The classification of fires is based on the type of fuel that is burning. Class C fires are specifically associated with electrically energized equipment. This means that if a fire occurs in any device that is powered by electricity, such as appliances, wiring, or electrical equipment, it falls under this classification. The importance of this distinction lies in the appropriate handling and extinguishing methods for these fires. Class C fires require a fire extinguisher designed for electrical fires, as using water or certain types of extinguishing agents could potentially lead to serious electrical shock hazards or exacerbate the fire. Understanding fire classifications not only helps in identifying the proper extinguishing methods but also reinforces safety protocols when dealing with electrical equipment. This knowledge is essential for individuals working in environments where such equipment is prevalent, like aircraft maintenance areas managed by Aviation Machinist's Mates.

**10. What is the purpose of maintaining Threshold Limit Values (TLVs) in the workplace?**

- A. To inform workers of potential physical hazards**
- B. To ensure safe exposure limits to hazardous substances**
- C. To regulate equipment usage times**
- D. To monitor temperature and humidity levels**

The purpose of maintaining Threshold Limit Values (TLVs) in the workplace is to ensure safe exposure limits to hazardous substances. TLVs are guidelines established by industrial hygienists to indicate the maximum concentration of a substance that workers can be exposed to without adverse health effects. They are designed to protect worker health and safety by providing limits that take into account various factors, such as duration of exposure and routes of entry into the body. By adhering to TLVs, organizations can help minimize the risk of occupational diseases, injuries, or other health issues associated with exposure to harmful substances, ensuring a safer working environment. The adoption of TLVs is part of a comprehensive occupational safety and health program aimed at reducing exposure to hazardous materials.



## 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](mailto:hello@examzify.com).**

**Or visit your dedicated course page for more study tools and resources:**

**<https://adadvancement.examzify.com>**

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