

NAVY AT(O) – AVIATION ELECTRONICS TECHNICIAN (ORDINANCE) SECOND CLASS ADVANCEMENT PRACTICE EXAM (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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THE FULL VERSION STUDY GUIDE

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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. Can programs stored in ROM be modified?**
 - A. Yes, they can be easily changed
 - B. No, they cannot be changed
 - C. Only with special permissions
 - D. Yes, but only using advanced tools
- 2. Which of the following is not a part of a fiber optic data link?**
 - A. Transmitter
 - B. Optical fiber
 - C. Receiver
 - D. Modulator
- 3. What is the total number of articles in the Code of Conduct?**
 - A. Four
 - B. Five
 - C. Six
 - D. Seven
- 4. At what intervals must enlisted personnel receive explanations of certain UCMJ articles as stated in Article 137?**
 - A. At entrance and every six months during active duty
 - B. At entrance and every reenlistment
 - C. At entrance, at six months, and every reenlistment
 - D. At entrance or no later than 6 days after, then every 12 months
- 5. In which type of memory are instructions and programs typically stored permanently inside the computer?**
 - A. Random Access Memory (RAM)
 - B. Read-only memory (ROM)
 - C. Cache memory
 - D. Flash memory

- 6. What are the three sources that contain the basic disciplinary laws for the U.S. Navy?**
- A. U.S. Navy Regulations, Standard Organization and Regulations, Uniform Code of Military Justice
 - B. U.S. Navy Regulations, Navy Manual, Uniform Code of Military Justice
 - C. Standard Organization, Uniform Code of Military Justice, Navy Instructions
 - D. Navy Instructions, Naval Directives, U.S. Navy Regulations
- 7. When are side boys paraded?**
- A. During emergencies
 - B. For scheduled official visits
 - C. On holiday celebrations
 - D. For training exercises
- 8. What is the first step to take when receiving a discrepancy?**
- A. Document the discrepancy
 - B. Determine if the equipment in question is actually faulty
 - C. Perform a visual inspection
 - D. Request a replacement
- 9. Which type of losses are common in two-wire and coaxial lines, but are reduced in waveguides?**
- A. Capacitance losses
 - B. Resistive losses
 - C. Copper (I^2R) losses
 - D. Inductive losses
- 10. Which method of producing voltage involves the movement of friction?**
- A. Chemical action
 - B. Light
 - C. Friction
 - D. Heat

Answers

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

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Explanations

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1. Can programs stored in ROM be modified?

- A. Yes, they can be easily changed
- B. No, they cannot be changed**
- C. Only with special permissions
- D. Yes, but only using advanced tools

Programs stored in ROM (Read-Only Memory) are designed to be permanent storage solutions. This characteristic is fundamental to how ROM functions. Once data is written to ROM during the manufacturing process, it typically cannot be altered or erased under normal operating conditions. This lack of mutability is what differentiates it from other types of memory, like RAM (Random Access Memory), which allows data to be easily modified. ROM is often utilized for firmware, which is essential for booting and controlling hardware devices because it provides the necessary instructions without risk of alteration, ensuring the stability and reliability of the system. While there are special types of ROM, such as EEPROM (Electrically Erasable Programmable Read-Only Memory) and Flash memory, which allow for data to be rewritten, standard ROM does not support modification after its initial installation. This permanence is crucial in many electronic systems to prevent accidental changes that could impact functionality or security, which is why the statement that programs in ROM cannot be changed is correct.

2. Which of the following is not a part of a fiber optic data link?

- A. Transmitter
- B. Optical fiber
- C. Receiver
- D. Modulator**

The correct choice highlights that a modulator is not typically considered a part of a fiber optic data link. A fiber optic data link primarily consists of a transmitter, optical fiber, and receiver. The transmitter converts electrical signals into optical signals, which are then sent through the optical fiber. The optical fiber acts as the medium, transmitting these light signals over distances with minimal loss. Finally, the receiver converts the optical signals back into electrical signals for interpretation and use within the receiving system. While modulators can indeed play a role in signal processing and can be associated with some advanced fiber optic systems, they are not standard components of the basic fiber optic data link structure. Thus, identifying a modulator as not part of the core components of a typical fiber optic data link is accurate.

3. What is the total number of articles in the Code of Conduct?

- A. Four
- B. Five
- C. Six**
- D. Seven

The Code of Conduct for members of the United States Armed Forces consists of a total of six articles. This foundational document outlines the ethical and legal standards of behavior that service members are expected to uphold in both wartime and peacetime. Each article addresses specific principles that guide conduct regarding loyalty, duty, respect, and the treatment of others, particularly in the context of captivity. The first article emphasizes the responsibility to serve with honor, the second addresses the loyalty owed to the United States, and subsequent articles cover issues like maintaining the health and morale of fellow service members and the expectations during captivity. Understanding the six articles helps service members embody and exemplify the values of the military, reinforcing their commitment to the nation and each other.

4. At what intervals must enlisted personnel receive explanations of certain UCMJ articles as stated in Article 137?

- A. At entrance and every six months during active duty
- B. At entrance and every reenlistment
- C. At entrance, at six months, and every reenlistment**
- D. At entrance or no later than 6 days after, then every 12 months

The chosen answer indicates that enlisted personnel must receive explanations of certain articles of the Uniform Code of Military Justice (UCMJ) upon entrance into service, again at the six-month mark, and subsequently at each reenlistment. This approach ensures that service members are well informed about the UCMJ's provisions early in their careers and remain aware of these rules throughout their service. The requirement for this training serves multiple purposes, including ensuring that service members understand their rights and responsibilities, which is crucial for maintaining discipline and accountability within the ranks. It emphasizes the importance of the UCMJ in military life and helps prevent violations that could lead to disciplinary action. While some alternatives mention different frequencies of communication about the UCMJ articles, they do not align with the established guideline of periodic education that combines initial training with follow-ups. This method not only addresses the immediate needs upon entry but also reinforces knowledge over time through regular updates, thus enhancing the overall understanding of military law among personnel.

5. In which type of memory are instructions and programs typically stored permanently inside the computer?

- A. Random Access Memory (RAM)
- B. Read-only memory (ROM)**
- C. Cache memory
- D. Flash memory

Read-only memory (ROM) is designed to permanently hold instructions and programs that are essential for the basic functions of a computer. Unlike RAM, which is volatile and loses its data when power is turned off, ROM retains its contents even when the system is powered down. This makes it ideal for storing firmware—the low-level software that interfaces directly with hardware—ensuring that critical startup processes and system checks can occur reliably each time the computer is turned on. ROM is utilized in various forms, such as the BIOS (Basic Input/Output System) in computers, which is essential for initializing hardware and loading the operating system. This persistent storage characteristic of ROM is crucial for ensuring that the system can always access this foundational software, irrespective of the main memory's state. In contrast, while other memory types like cache and flash memory have their uses—cache memory for speeding up access to frequently used data, and flash memory for more flexible and rewritable storage—ROM specifically serves the function of securely and permanently storing vital program instructions.

6. What are the three sources that contain the basic disciplinary laws for the U.S. Navy?

A. U.S. Navy Regulations, Standard Organization and Regulations, Uniform Code of Military Justice

B. U.S. Navy Regulations, Navy Manual, Uniform Code of Military Justice

C. Standard Organization, Uniform Code of Military Justice, Navy Instructions

D. Navy Instructions, Naval Directives, U.S. Navy Regulations

The three sources that contain the basic disciplinary laws for the U.S. Navy are indeed U.S. Navy Regulations, Standard Organization and Regulations, and the Uniform Code of Military Justice (UCMJ). U.S. Navy Regulations provide a comprehensive framework of conduct and operational guidelines for Navy personnel, emphasizing military discipline and accountability. These regulations delineate what is expected in terms of behavior and duties of service members, serving as an essential reference for proper conduct within the Navy. The Standard Organization and Regulations of the U.S. Navy outlines the organizational structure and establishes the principles for command and administrative processes. Understanding this structure is crucial for maintaining order and discipline within the ranks, as it reflects the hierarchy and essential functions of naval operations. The Uniform Code of Military Justice is the foundational system of military law in the United States. It defines the legal standards of conduct for members of the Armed Forces, stipulates offenses that can lead to courts-martial, and ensures that service members are subject to law and due process within the military justice system. Together, these sources form the legal backbone that governs the behavior of naval personnel, ensuring that discipline is maintained, and justice is administered within the fleet. They are integral to understanding military law and the responsibilities of service members

7. When are side boys paraded?

A. During emergencies

B. For scheduled official visits

C. On holiday celebrations

D. For training exercises

Side boys are paraded during scheduled official visits to honor dignitaries and senior officials. This traditional naval custom reflects respect and protocol, underlining the importance of the visitor, whether they are a high-ranking officer or an official guest. It is a ceremonial practice where sailors stand at attention on either side of the vessel or entrance area, saluting as the guests arrive and depart. In this context, other scenarios, such as emergencies, holiday celebrations, or training exercises, do not typically warrant the formality of a side boys parade. While emergencies require rapid response and do not align with the ceremonial aspects of side boys, holiday celebrations may have their own forms of recognition but do not involve side boys. Similarly, training exercises focus on operational readiness and skill development, lacking the ceremonial significance tied to official visits.

8. What is the first step to take when receiving a discrepancy?

- A. Document the discrepancy
- B. Determine if the equipment in question is actually faulty**
- C. Perform a visual inspection
- D. Request a replacement

When receiving a discrepancy, the first step is to determine if the equipment in question is actually faulty. This step is crucial because it helps in assessing whether the reported issue is a genuine problem or possibly a misunderstanding regarding equipment operation or conditions that could lead to a perceived fault. This initial determination guides subsequent actions and ensures that resources are allocated properly. If an equipment is not faulty, then the issue could stem from user error, improper operation, or other factors that do not require extensive troubleshooting or resources. Ensuring that the equipment is indeed defective before proceeding to document, inspect, or request replacements can prevent unnecessary downtime and help maintain efficient operational readiness. In contrast, documenting the discrepancy or performing a visual inspection might come after confirming an actual fault, and requesting a replacement could lead to unnecessary actions if the equipment is functioning correctly. Therefore, establishing the validity of the reported issue is the foundational step in the problem-solving process.

9. Which type of losses are common in two-wire and coaxial lines, but are reduced in waveguides?

- A. Capacitance losses
- B. Resistive losses
- C. Copper (I^2R) losses**
- D. Inductive losses

In two-wire and coaxial lines, Copper (I^2R) losses are prevalent due to the resistance of the conductors through which electrical current flows. These losses manifest as heat, which occurs when current passes through a conductor and encounters resistance, causing a reduction in signal strength and efficiency over longer distances. Waveguides, on the other hand, are designed to transmit electromagnetic waves with minimal loss. They operate under the principle of guiding waves along certain paths and do not have the same electrical resistance issues as traditional conductors. Because waveguides rely more on the transmission of electromagnetic waves rather than current flow through a material, the resistive losses associated with the conductor material are significantly reduced. This difference in operating principle and physical structure accounts for the decrease in resistive losses within waveguides compared to two-wire and coaxial systems. In waveguides, energy is transferred by means of the electric and magnetic fields rather than by the physical flow of electrons, making them more efficient for high-frequency applications.

10. Which method of producing voltage involves the movement of friction?

- A. Chemical action
- B. Light
- C. Friction**
- D. Heat

The method of producing voltage through the movement of friction is known as the triboelectric effect, which is precisely what friction generates. In this process, when two different materials come into contact and are then separated, electrons are transferred from one material to the other due to their differing tendencies to hold onto electrons. This transfer creates a voltage difference between the two materials. This principle is often demonstrated with common materials, such as rubbing a balloon on your hair. The friction causes the balloon to gain electrons, resulting in a negative charge, while your hair loses electrons and becomes positively charged. This is a direct illustration of how mechanical energy from friction is converted into electrical energy in the form of an electric charge. This understanding of voltage generation through friction is crucial in various applications, including electrostatic devices and sensors.

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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://navyato2advancement.examzify.com>

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

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