1C8X3 VOLUMES 1-4 PRACTICE TEST (SAMPLE)

STUDY GUIDE

SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

VISIT US ONLINE FOR THE FULL VERSION STUDY GUIDE

https://1c8x3vol1to4.examzify.com

Copyright © 2026 by Examzify - A Kaluba Technologies Inc. product.

ALL RIGHTS RESERVED.

No part of this book may be reproduced or transferred in any form or by any means, graphic, electronic, or mechanical, including photocopying, recording, web distribution, taping, or by any information storage retrieval system, without the written permission of the author.

Notice: Examzify makes every reasonable effort to obtain accurate, complete, and timely information about this product from reliable sources.

SAMPLE

Table of Contents

Copyright 1

Table of Contents 2

Introduction 3

How to Use This Guide 4

Questions 5

Answers 8

Explanations 10

Next Steps 16

SAMPLE

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.

SAMPLE

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!

SAMPLE

Questions

SAMPLE

1. **What amount of current flow through the human body can cause shock that may cause you to go into cardiac arrest?**

   A. 50 milliamperes or more.

   B. 40 milliamperes or less.

   C. 50 volts or more.

   D. 40 volts or less.

2. **Which AN/TPX-42A Secondary Surveillance Radar (SSR) interrogation mode is continuously operable?**

   A. Mode 1

   B. Mode 2

   C. Mode 3/A

   D. Mode C

3. **What frequency modification is used in the AN/TPS-75 to help with target detection?**

   A. Transmitted adjustments

   B. Side lobe frequency changes

   C. Stable local oscillator frequency

   D. Signal coherence

4. **Internet Protocol Version 6 (IPv6) addresses are how much larger than Internet Protocol Version 4 (IPv4) addresses?**

   A. Twice as large

   B. Six times larger

   C. Four times larger

   D. Three times larger

5. **What is the main difference between the Indicator Control C-8625/T (A-Box) and the Indicator Control C-10501/T (C-Box)?**

   A. Used with a fixed radar configuration

   B. Allows decreased target load for optimization

   C. Allows setting of barometric switches by the chief controller

   D. Allows the chief controller to override a range error

SAMPLE

6. How is the AN/TPS-75 Aircraft Control and Warning System antenna aligned to the north?

A. Magnetically

B. Mechanically

C. Electronically

D. Automatically in daily initialization

7. What element aids in confirming the accuracy of data within the STARS?

A. Real time quality control (RTQC).

B. Optional service providers.

C. Secondary radar data.

D. Historical data analysis.

8. What is the range in nautical miles of the air traffic control radar beacon set (ATCRBS) in the AN/TPN-24 ASR?

A. 60

B. 100

C. 160

D. 200

9. What does a knot in a lanyard do to its overall strength?

A. Increases strength by 25%.

B. Increases strength by 50%.

C. Reduces strength by 50%.

D. Has no effect.

10. If the magnetic field strength is too high on the magnetron, the magnetron will?

A. Oscillate erratically

B. Oscillate too high

C. Oscillate too low

D. Not oscillate

SAMPLE

Answers

SAMPLE

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

SAMPLE

Explanations

SAMPLE

1. What amount of current flow through the human body can cause shock that may cause you to go into cardiac arrest?

A. 50 milliamperes or more.

B. 40 milliamperes or less.

C. 50 volts or more.

D. 40 volts or less.

The correct amount of current that can cause shock severe enough to potentially lead to cardiac arrest is around 50 milliamperes or more. At this level of current, the electrical energy can interfere with the normal rhythm of the heart, which may result in ventricular fibrillation, a condition where the heart's electrical activity becomes chaotic and it can no longer pump blood effectively. Currents in the range of 50 milliamperes reach a threshold where the risk of serious injury or fatal outcomes, such as cardiac arrest, increases significantly. Lower levels of current, such as those less than 50 milliamperes, typically do not pose the same high risk for fatal cardiac responses and are generally considered less dangerous. Voltage levels, while important in understanding how electricity can cause harm, do not directly correlate with the health impact; rather, it is the current (the flow of electric charge) that is a more critical factor in assessing the risk of electrical shock.

2. Which AN/TPX-42A Secondary Surveillance Radar (SSR) interrogation mode is continuously operable?

A. Mode 1

B. Mode 2

C. Mode 3/A

D. Mode C

The AN/TPX-42A Secondary Surveillance Radar (SSR) utilizes several interrogation modes, each serving specific purposes in air traffic management and aircraft identification. Mode C is designed to provide altitude information in addition to the aircraft's identity. What makes Mode C particularly notable is its continuous operability feature, which allows it to function without interruption for sustained periods. This means that while interrogating targets, it can consistently receive altitude data, providing real-time information about aircraft's vertical positions in relatively busy airspace. In contrast, other modes such as Mode 1, Mode 2, and Mode 3/A have specific operational limitations or scenarios they are primarily designed for, therefore lacking the same continuous functionality. Mode C's capability to operate continuously is critical for effective air traffic monitoring and safety, especially in environments where altitude awareness is vital for avoiding collisions and maintaining safe separation between aircraft.

SAMPLE

3. What frequency modification is used in the AN/TPS-75 to help with target detection?

A. Transmitted adjustments

B. Side lobe frequency changes

C. Stable local oscillator frequency

D. Signal coherence

The correct answer focuses on the concept of a stable local oscillator frequency, which is crucial for effective target detection in radar systems like the AN/TPS-75. A stable local oscillator frequency helps to maintain consistent and accurate frequency references for the radar's transmitted and received signals. This stability is essential for distinguishing between targets and clutter, as it ensures that the system can effectively process the return signals from targets over a range of distances and speeds. In radar systems, fluctuations in frequency can lead to inaccuracies in range and Doppler measurements, making it challenging to detect and track moving targets or differentiate them from background noise. By utilizing a stable local oscillator frequency, the AN/TPS-75 can produce reliable frequency signals that contribute to improved detection accuracy and performance. While other options may involve modifications or adjustments in radar operation, they do not provide the same foundational benefit of frequency stability that enhances target detection capabilities. By ensuring that the oscillation remains constant and predictable, the radar system can better analyze received echoes and identify potential targets among various other signals in the environment.

4. Internet Protocol Version 6 (IPv6) addresses are how much larger than Internet Protocol Version 4 (IPv4) addresses?

A. Twice as large

B. Six times larger

C. Four times larger

D. Three times larger

The correct answer indicates that Internet Protocol Version 6 (IPv6) addresses are significantly larger than Internet Protocol Version 4 (IPv4) addresses. Specifically, an IPv4 address is 32 bits in length, which allows for 2^32 unique addresses, totaling around 4.3 billion possible addresses. On the other hand, an IPv6 address is 128 bits long, providing 2^128 unique addresses, which vastly exceeds the number of addresses available in IPv4. To determine the comparative size in the context of bits, you can consider the ratio of their lengths. Since 128 bits divided by 32 bits equals 4, this means that IPv6 addresses are indeed four times larger than IPv4 addresses. This increase in size is crucial for accommodating the growing number of devices connected to the internet, ensuring there are enough addresses available to meet future demands. Hence, the assertion that IPv6 addresses are four times larger is supported by the fundamental structure and design of both protocols.

SAMPLE

5. What is the main difference between the Indicator Control C-8625/T (A-Box) and the Indicator Control C-10501/T (C-Box)?

A. Used with a fixed radar configuration

B. Allows decreased target load for optimization

C. Allows setting of barometric switches by the chief controller

D. Allows the chief controller to override a range error

The main difference between the Indicator Control C-8625/T (A-Box) and the Indicator Control C-10501/T (C-Box) is that the C-8625/T is specifically used with a fixed radar configuration. This distinction is important because it emphasizes the operational context in which each control unit is utilized. In practical terms, the fixed radar configuration indicates a setup where the radar system remains stationary or is used in a set location, which often requires specific controls designed to manage that arrangement effectively. The A-Box is tailored for this scenario, enhancing precision and managing the operational parameters of the radar system as it remains in a dedicated position. Understanding this aspect can facilitate better comprehension of how radar systems are managed and the significance of individual controls like the A-Box in maintaining operational efficiency in fixed setups. The other choices refer to functions or capabilities that may not distinctly define the primary operational context of these controls, further clarifying the unique aspect of the A-Box's design and application.

6. How is the AN/TPS-75 Aircraft Control and Warning System antenna aligned to the north?

A. Magnetically

B. Mechanically

C. Electronically

D. Automatically in daily initialization

The AN/TPS-75 Aircraft Control and Warning System antenna is aligned to the north electronically, which allows for precise and efficient operation. Electronic alignment utilizes sensors and calibration methods to detect the current orientation of the antenna and adjust it in real-time. This technique enhances the accuracy of target tracking and system performance, as it can account for any movements or shifts in the antenna's position. Magnetic or mechanical methods could introduce variability or inaccuracies depending on environmental conditions or physical mechanics, which is why electronic alignment is preferred in modern radar systems. Though there may be some automatic processes in initialization, the core method of alignment specifically relies on electronic means to ensure optimal functionality.

SAMPLE

7. What element aids in confirming the accuracy of data within the STARS?

A. Real time quality control (RTQC).

B. Optional service providers.

C. Secondary radar data.

D. Historical data analysis.

Real-time quality control (RTQC) is crucial in confirming the accuracy of data within STARS (System of Systems Operational Data Management). This process involves the continuous monitoring and validation of data as it is being collected and processed. By implementing RTQC, discrepancies and errors can be identified and corrected instantly, ensuring that the information is reliable and up-to-date. The importance of RTQC lies in its ability to maintain data integrity. In environments where timely and accurate information is vital, such as aviation management, having immediate oversight through RTQC helps in making informed decisions and improving overall operational efficiency. While optional service providers, secondary radar data, and historical data analysis play their roles within the broader system, they do not directly focus on the real-time assessment of accuracy in the same way that RTQC does. Optional service providers may offer additional resources, secondary radar data provides situational awareness, and historical data analysis can help in trend identification, but none specifically ensure real-time data accuracy as effectively as RTQC.

8. What is the range in nautical miles of the air traffic control radar beacon set (ATCRBS) in the AN/TPN-24 ASR?

A. 60

B. 100

C. 160

D. 200

The air traffic control radar beacon set (ATCRBS) in the AN/TPN-24 ASR is designed to provide accurate surveillance and identification of air traffic within a significant range. The correct range of the ATCRBS is 200 nautical miles. This capability allows air traffic controllers to monitor and manage aircraft positions effectively over vast areas, which is essential for maintaining safety in busy airspace. The system utilizes ground-based radar to detect aircraft transponders, facilitating the identification and tracking of multiple aircraft simultaneously. The 200 nautical mile range ensures comprehensive coverage that can assist in coordinating approach and departure operations at airports, as well as managing flight paths in the air traffic control system. Understanding the correct range is crucial for those involved in air traffic control and operations, allowing them to better plan for coverage and effectively utilize the available technology to maintain safe and efficient air traffic management.

9. What does a knot in a lanyard do to its overall strength?

A. Increases strength by 25%.

B. Increases strength by 50%.

C. Reduces strength by 50%.

D. Has no effect.

A knot in a lanyard reduces its overall strength due to the way the fibers are compressed and altered when the knot is formed. When a knot is tied, it creates pressure points and bends in the material, which can lead to a decrease in the effective load-bearing capacity. Specific knots can cause the fibers to pull against each other in ways that create friction and stress, potentially leading to failure. This is particularly significant in materials like rope or cord where the integrity of the fibers is crucial for maintaining strength. Various studies and safety guidelines indicate that the strength can be significantly compromised, often estimated as a reduction of around 50% for many common knots. Therefore, while knots are essential for securing items, their impact on overall strength must be considered carefully in applications requiring high reliability.

SAMPLE

10. If the magnetic field strength is too high on the magnetron, the magnetron will?

A. Oscillate erratically

B. Oscillate too high

C. Oscillate too low

D. Not oscillate

When the magnetic field strength in a magnetron exceeds the optimal levels, it affects the electron behavior that is essential for microwave generation. Specifically, a magnetic field that is too strong can inhibit the movement of electrons within the device. In a magnetron, electrons are emitted from a cathode and are influenced by both electric and magnetic fields. The balance between these fields is crucial for the magnetron's normal oscillation. When the magnetic field is excessively strong, it can cause the electrons to become trapped, preventing them from completing their intended path to generate microwave radiation. As a result, the magnetron may fail to oscillate altogether, stopping the microwave production. This is why if the magnetic field strength is too high, the magnetron will not oscillate. The proper functioning of a magnetron is highly dependent on the correct strength of the magnetic field, ensuring that the electrons move in a controlled way to produce the desired microwave frequency.

SAMPLE

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://1c8x3vol1to4.examzify.com

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

SAMPLE