

IT COMMUNICATIONS PROGRESS TEST 1 PRACTICE (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

VISIT US ONLINE FOR
THE FULL VERSION STUDY GUIDE

<https://itcommsprogress1.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	15

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.

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

SAMPLE

- 1. The pier connectivity transit link provides 24-hour data, voice, and video communications using T1 lines when ships are in port.**
 - A. False
 - B. Not specified
 - C. Only data
 - D. True

- 2. Which set of factors is commonly cited as influencing radio wave propagation?**
 - A. Weather conditions, geographic location, and time of day
 - B. Battery life, antenna height, and color
 - C. Frequency band, modulation, and signal-to-noise ratio
 - D. Data rate, codec, and bandwidth

- 3. NAT can affect peer-to-peer connections by causing which issue?**
 - A. NAT improves end-to-end transparency.
 - B. End-to-end connectivity can be difficult because private addresses are hidden behind a single public IP.
 - C. NAT eliminates the need for firewalls.
 - D. NAT guarantees peer-to-peer connections.

- 4. One strategy to mitigate IPv4 address scarcity in an enterprise is to**
 - A. Deploy IPv6 in a dual-stack environment to expand addressing and reduce NAT reliance.
 - B. Rely entirely on NAT for IPv6.
 - C. Disable IPv4 in all devices.
 - D. Switch to IPv6-only with no dual-stack.

- 5. Reflection of radio waves occurs when waves bounce off a surface due to what?**
 - A. The surface is flat
 - B. A boundary between media with different impedances
 - C. The waves are of high frequency
 - D. The transmitter power is high

6. What does the term 'Propagation' mean?

- A. The way radio waves move
- B. The energy source
- C. The frequency
- D. The amplitude

7. What is one efficiency advantage of SATCOM transit links?

- A. Increased latency
- B. Data can be multiplexed to use bandwidth efficiently
- C. Decreased reliability
- D. Limited to one channel

8. In practice, how should IPv6 be deployed to address address scarcity while preserving IPv4 functionality?

- A. IPv6-only deployment with no IPv4.
- B. Rely solely on IPv6 with DNS64/NAT64.
- C. Use IPv4 only for internal networks.
- D. In a dual-stack environment that runs IPv4 and IPv6 concurrently.

9. Shore Facilities provide _____ in support of End-to-end communications.

- A. Access to the internet and off ship email
- B. Voice recording services
- C. Navigation charts
- D. Crew hotel access

10. CT3 Harmon is working in radio and just formatted a TS e-mail. The email will travel through the SCI enclave, and then be transmitted off ship. Select the graphic showing the emails path through the network architecture of a ship.

- A. antenna; rf equipment; ADNS
- B. workstation; sever switch; sci router; line device; ADNS; crypto device; RF equipment; antenna
- C. ISNS; CENTRIXS; SCI
- D. workstation; sever switch; sci router; line device; ADNS; crypto device; RF equipment; antenna

Answers

SAMPLE

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

SAMPLE

Explanations

SAMPLE

1. The pier connectivity transit link provides 24-hour data, voice, and video communications using T1 lines when ships are in port.

- A. False
- B. Not specified
- C. Only data

D. True

This question focuses on a port-based communications link that runs continuously and handles multiple media. The statement says the pier connectivity transit link provides 24-hour data, voice, and video communications using T1 lines when ships are in port. A T1 line is a reliable digital circuit capable of carrying several channels of traffic, which means it can support data, voice, and video simultaneously. The emphasis on 24-hour availability means the service is continuous, and the condition "when ships are in port" specifies the operational context. Since all three media are explicitly mentioned and the time frame is around the clock for ships in port, the description is consistent and True. The other options would misread the scope or availability of the service.

2. Which set of factors is commonly cited as influencing radio wave propagation?

- A. Weather conditions, geographic location, and time of day**
- B. Battery life, antenna height, and color
- C. Frequency band, modulation, and signal-to-noise ratio
- D. Data rate, codec, and bandwidth

The main concept here is how the environment and timing affect how radio waves travel. Weather conditions, geographic location, and time of day are classic environmental factors that change propagation paths and conditions. Weather can alter atmospheric density, humidity, and precipitation, causing attenuation or refraction of signals. Geographic location matters because terrain, buildings, and bodies of water shape the available path—what's visible, what's blocked, and where reflections or multipath can occur. Time of day changes ionospheric and atmospheric behavior; for many frequencies, the ionosphere becomes more or less reflective depending on solar radiation, which can extend or restrict long distance propagation. Those other options mix in aspects of the transmitter or signal itself (like battery life, color, height of the antenna, frequency band, modulation, signal-to-noise ratio, data rate, codec, and bandwidth). While some of these affect how well a signal is received or how much information can be sent, they aren't the environmental factors that govern how radio waves propagate through the medium.

3. NAT can affect peer-to-peer connections by causing which issue?

- A. NAT improves end-to-end transparency.
- B. End-to-end connectivity can be difficult because private addresses are hidden behind a single public IP.**
- C. NAT eliminates the need for firewalls.
- D. NAT guarantees peer-to-peer connections.

NAT sits at the gateway between a private network and the Internet and translates private addresses to a public one, along with port numbers, so many internal hosts can share a single public IP. In peer-to-peer connections, direct reachability is usually required: each peer needs to be reachable at a known address and port. But NAT hides those private addresses behind the public IP, so other peers on the Internet can't initiate connections to them directly. That makes end-to-end connectivity difficult, because the true locations of the peers aren't visible, and inbound connections can be blocked unless port forwarding or traversal techniques are used. This is why the statement describing end-to-end connectivity being hard due to private addresses hidden behind a single public IP is the best fit. NAT doesn't improve transparency, it often reduces it; it doesn't remove the need for firewalls, and it doesn't guarantee that peer-to-peer connections will always succeed.

4. One strategy to mitigate IPv4 address scarcity in an enterprise is to

- A. Deploy IPv6 in a dual-stack environment to expand addressing and reduce NAT reliance.**
- B. Rely entirely on NAT for IPv6.
- C. Disable IPv4 in all devices.
- D. Switch to IPv6-only with no dual-stack.

The main idea here is to use IPv6 alongside IPv4 so you can take advantage of a much larger address space while keeping IPv4 working during the transition. Running a dual-stack environment means devices obtain both an IPv4 address and an IPv6 address. That expands how you assign addresses for new devices and services, which eases pressure on the limited IPv4 pool. With IPv6, devices can be reached directly using globally routable addresses, reducing the need to rely on NAT to stretch IPv4 addresses. This approach supports gradual migration: you continue to support existing IPv4-based systems while you deploy IPv6, avoiding sudden cuts or compatibility problems. It's not about using NAT for IPv6 (that's not standard practice and runs against IPv6 design goals); it's about enabling direct IPv6 connectivity where possible and preserving IPv4 for legacy traffic. The other options would either drop compatibility (IPv6-only with no dual-stack) or strip away IPv4 support too early, or rely on NAT for IPv6, which isn't aligned with how IPv6 is meant to operate.

5. Reflection of radio waves occurs when waves bounce off a surface due to what?

- A. The surface is flat
- B. A boundary between media with different impedances**
- C. The waves are of high frequency
- D. The transmitter power is high

Reflection happens when a radio wave reaches a boundary between two media with different impedances. The boundary conditions for electromagnetic fields require the wave to adjust as it crosses the interface, and a mismatch in impedance causes part of the energy to bounce back instead of transmitting smoothly into the second medium. If the impedances are similar, most energy passes through; with a larger difference, more energy reflects. The surface texture affects whether the reflection is a sharp mirror image or scattered, but the fundamental cause is the impedance difference at the boundary. Frequency or transmitter power don't by themselves create reflection.

6. What does the term 'Propagation' mean?

A. The way radio waves move

B. The energy source

C. The frequency

D. The amplitude

Propagation refers to how radio waves travel from the transmitting antenna to the receiving antenna. It covers the path the signal takes through space and the atmosphere, including line-of-sight travel, ground waves at lower frequencies, and skywave or ionospheric reflection for long distances. It also involves effects like reflection, refraction, diffraction, and absorption that can change how strong the signal is when it arrives. This idea explains why signals can be received over different ranges and under varying conditions, depending on frequency and environment. It isn't about the power source driving the transmitter, nor about the wave's frequency or its amplitude.

7. What is one efficiency advantage of SATCOM transit links?

A. Increased latency

B. Data can be multiplexed to use bandwidth efficiently

C. Decreased reliability

D. Limited to one channel

Multiplexing data streams over a SATCOM link lets many signals share the same satellite channel, using the available bandwidth more efficiently. By combining multiple data streams in time, frequency, or code, a single transponder can carry more information, which is essential on satellites where bandwidth is costly and limited. This is why the ability to multiplex improves overall throughput and makes better use of the link's capacity. Latency and reliability aren't improved by multiplexing; satellites inherently introduce delay, and multiplexing doesn't inherently reduce that. Being limited to one channel would contradict the very idea of sharing the link.

8. In practice, how should IPv6 be deployed to address address scarcity while preserving IPv4 functionality?

A. IPv6-only deployment with no IPv4.

B. Rely solely on IPv6 with DNS64/NAT64.

C. Use IPv4 only for internal networks.

D. In a dual-stack environment that runs IPv4 and IPv6 concurrently.

To address address scarcity while keeping IPv4 working, you run IPv4 and IPv6 in parallel across the network—a dual-stack deployment. This approach lets devices and services use IPv6 where available to take advantage of the larger address space, while still using IPv4 for all existing endpoints and applications that haven't moved to IPv6 yet. It supports a gradual, risk-managed transition: core infrastructure, DNS, and services can be prepared for IPv6, endpoints and access networks can be updated step by step, and connectivity remains available on both protocols during the migration. Relying on IPv6-only with translation (DNS64/NAT64) or using IPv4-only internally creates gaps or complexity. NAT64/DNS64 introduces translation gaps for certain applications and protocols, making troubleshooting harder and potentially breaking end-to-end behavior. An IPv6-only design can cut off IPv4 services entirely, causing service outages for legacy systems. A dual-stack strategy avoids these issues by preserving full IPv4 functionality while enabling IPv6 adoption.

9. Shore Facilities provide _____ in support of End-to-end communications.

A. Access to the internet and off ship email

B. Voice recording services

C. Navigation charts

D. Crew hotel access

End-to-end communications rely on linking the ship's own network to external networks through shore facilities. Access to the internet and off-ship email provides the essential bridge for sending and receiving messages, reports, weather updates, and coordination with offices ashore. This capability directly enables the flow of information from ship to land and back, which is what end-to-end communications is all about. Other options don't enable that core channel: voice recording services don't create or carry the communications themselves, navigation charts are for navigation, and crew hotel access isn't related to transmitting or receiving data.

10. CT3 Harmon is working in radio and just formatted a TS e-mail. The email will travel through the SCI enclave, and then be transmitted off ship. Select the graphic showing the emails path through the network architecture of a ship.

A. antenna; rf equipment; ADNS

B. workstation; sever switch; sci router; line device; ADNS; crypto device; RF equipment; antenna

C. ISNS; CENTRIXS; SCI

D. workstation; sever switch; sci router; line device; ADNS; crypto device; RF equipment; antenna

When a secure email travels from a shipboard user to be sent off the ship, it must pass through the local network inside the SCI enclave and then exit via the radio path. The sequence starts at the workstation, which connects to a server switch to reach other devices on the local network. From there, the data moves to the SCI router that handles traffic inside the SCI enclave, keeping sensitive information within that domain. After exiting the local SCI network, the signal goes through a line device to interface with the external data path, then into the ADNS for its digital networking services. The cryptographic device then encrypts the data for secure transmission. Finally, the RF equipment and antenna carry the encrypted signal out through the air to its destination off ship. This specific order reflects how a secure message is processed and routed from the user's workstation through the SCI domain and out to external networks. Graphics missing any of these steps or reversing their order wouldn't accurately represent the actual data flow for an email leaving the ship.

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://itcommsprogress1.examzify.com>

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

SAMPLE