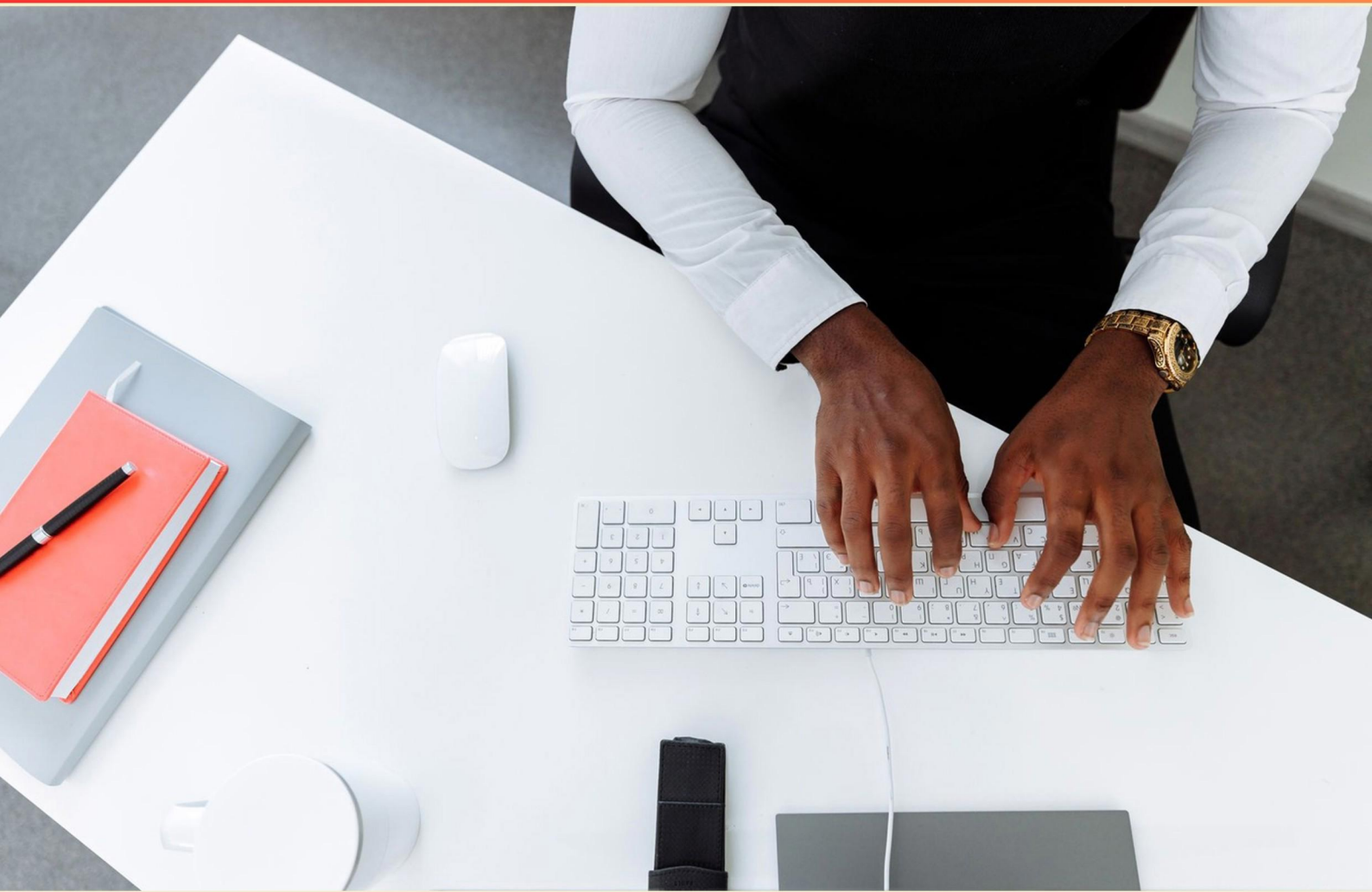


COMPUTER BASICS DEVICES, DATA, STORAGE, AND INTERNET CONCEPTS PRACTICE TEST (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

VISIT US ONLINE FOR
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. What is the difference between lossless and lossy audio compression?**
 - A. Lossless reduces file size more than lossy
 - B. Lossless preserves all audio data, lossy discards some data to reduce file size
 - C. Lossless uses lossy algorithms
 - D. Lossless only works on text
- 2. During the boot process, which component loads the operating system after hardware initialization?**
 - A. POST
 - B. BIOS/UEFI
 - C. The kernel loads the OS
 - D. A bootloader loads the OS after hardware initialization
- 3. What is a type of optical disc able to store large amounts of data, especially high-resolution?**
 - A. USB Drive
 - B. RAM
 - C. DVD
 - D. Cloud Storage
- 4. Which of the following indicates a secure website?**
 - A. HTTPS with a valid certificate, padlock icon, and valid domain
 - B. HTTP without encryption
 - C. FTP with insecure login
 - D. Any URL with a query string
- 5. In web browsing, what are the roles of the browser cache and cookies?**
 - A. Cache speeds up printing.
 - B. Cookies block ads.
 - C. Cache stores recently loaded resources to speed up repeated visits.
 - D. Cache stores recently loaded resources to speed up repeated visits; cookies store small data on the client to manage sessions and preferences.

- 6. Which RAID level provides striping with parity across multiple disks for fault tolerance and improved performance?**
- A. RAID 0
 - B. RAID 5
 - C. RAID 1
 - D. RAID 10
- 7. What is cloud storage, and what are its typical advantages and disadvantages?**
- A. Cloud storage stores data on local hard drives only.
 - B. Cloud storage stores data on remote servers accessible over the internet; advantages include scalability and accessibility; disadvantages include ongoing costs and potential dependency on internet connectivity.
 - C. Cloud storage guarantees zero cost.
 - D. Cloud storage eliminates the need for security.
- 8. RAM vs ROM: which statement is correct about volatility and usage?**
- A. RAM is non-volatile; ROM is volatile.
 - B. RAM is slower than ROM.
 - C. RAM is volatile and fast, used for temporary data; ROM is non-volatile, stores firmware, slower.
 - D. RAM stores firmware; ROM holds working data.
- 9. What is a bit and a byte, and how many bits are in a byte?**
- A. A bit is the smallest unit of data (0 or 1); a byte consists of 8 bits.
 - B. A byte consists of 16 bits.
 - C. A bit is 8 bits; a byte is 1 bit.
 - D. A bit is the smallest unit of data; a byte consists of 4 bits.
- 10. What is the primary purpose of a VPN tunnel?**
- A. Encrypts traffic between your device and VPN server
 - B. Increases download speed
 - C. Stores data locally
 - D. Blocks all traffic

Answers

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

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Explanations

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1. What is the difference between lossless and lossy audio compression?

- A. Lossless reduces file size more than lossy
- B. Lossless preserves all audio data, lossy discards some data to reduce file size**
- C. Lossless uses lossy algorithms
- D. Lossless only works on text

The main idea is whether the compression keeps every bit of the original data or not. In lossless compression, you shrink the file but can restore the exact original audio when you decompress it—no information is discarded that affects playback. This makes it ideal for archiving, mastering, or any situation where perfect fidelity is important. In lossy compression, some data is intentionally removed during encoding based on what is less perceptible to human ears, so the decompressed audio is an approximation of the original. It reduces file size more aggressively, which is useful for streaming or portable listening where bandwidth or storage is limited. So the key difference is that lossless preserves all audio data, while lossy discards some data to save space.

2. During the boot process, which component loads the operating system after hardware initialization?

- A. POST
- B. BIOS/UEFI
- C. The kernel loads the OS
- D. A bootloader loads the OS after hardware initialization**

After hardware is initialized, a bootloader takes over to start the operating system. The bootloader's job is to locate the OS image, load the kernel into memory, and transfer control to it. Once the kernel is running, it continues initializing the system and starts user-space operations. So the component that loads the OS after hardware initialization is the bootloader. The firmware (BIOS/UEFI) handles the initial hardware setup and then hands control to the bootloader, while the kernel itself is brought into memory by that bootloader and then takes over to finish booting.

3. What is a type of optical disc able to store large amounts of data, especially high-resolution?

- A. USB Drive
- B. RAM
- C. DVD**
- D. Cloud Storage

Optical discs store data by using a laser to read tiny pits and lands written on the disc surface. Among the options, the DVD is the optical disc designed to hold much more data than a CD, which makes it a good fit for high-resolution media. A standard DVD can hold about 4.7 GB, with dual-layer versions up to around 8.5 GB, enough for high-quality video and large files. USB drives and RAM are not optical discs and serve different roles—RAM is temporary, fast memory, and USB drives are flash storage, not discs. Cloud storage is online and depends on an internet connection. So a DVD best matches an optical disc capable of storing large amounts of data, including high-resolution media.

4. Which of the following indicates a secure website?

- A. HTTPS with a valid certificate, padlock icon, and valid domain
- B. HTTP without encryption
- C. FTP with insecure login
- D. Any URL with a query string

Recognizing secure websites relies on encryption and identity verification signals shown in the browser. When a site uses HTTPS, data between your browser and the server is encrypted, which helps protect information from eavesdroppers and tampering. A valid certificate from a trusted authority confirms the site's identity, and the domain listed on the certificate should match the site you're visiting, so you're not being redirected to a fake page. The padlock icon is a user-visible cue that the connection is encrypted and the certificate has been validated. Together, these cues indicate a secure website. The other options fail to guarantee security: HTTP sends data in plaintext, which can be intercepted; FTP with insecure login exposes usernames and passwords; and having a query string doesn't by itself indicate the connection is encrypted or that the site's identity has been verified.

5. In web browsing, what are the roles of the browser cache and cookies?

- A. Cache speeds up printing.
- B. Cookies block ads.
- C. Cache stores recently loaded resources to speed up repeated visits.
- D. Cache stores recently loaded resources to speed up repeated visits; cookies store small data on the client to manage sessions and preferences.

The key idea here is how browsers remember things to load pages faster and keep you signed in or personalized across visits. The browser cache stores copies of recently loaded resources—HTML, CSS, JavaScript, images—on your device so when you revisit the same site or navigate back and forth, the browser can reuse those files instead of re-downloading them. This speeds up loading and saves bandwidth, with mechanisms to check whether a cached file is still fresh or needs updating. Cookies are small data files stored on your device by websites to remember information about you. They hold things like a session identifier, login state, language or theme preferences, and other settings, so the site can recognize you on subsequent visits and keep your choices consistent across pages and sessions. The other options don't capture both roles: caching doesn't handle printing specifically, cookies don't inherently block ads, and mentioning only the cache misses the important role cookies play in managing sessions and preferences. So combining both roles gives the complete picture of how these two mechanisms work together to improve performance and user experience.

6. Which RAID level provides striping with parity across multiple disks for fault tolerance and improved performance?

- A. RAID 0
- B. RAID 5
- C. RAID 1
- D. RAID 10

Striping data across several disks with parity information lets the array tolerate a single disk failure while keeping fast reads. In this setup, data is written in stripes across the disks and parity data is distributed across them, so if one disk fails you can reconstruct its data from the remaining data and parity. Read performance improves because multiple disks service reads in parallel, while writes incur some parity calculation overhead. You need at least three disks for this arrangement, and usable capacity is the total across all disks minus the space of one disk. This combination—striping with distributed parity across multiple disks for fault tolerance and better performance—best fits the description.

7. What is cloud storage, and what are its typical advantages and disadvantages?

- A. Cloud storage stores data on local hard drives only.
- B. Cloud storage stores data on remote servers accessible over the internet; advantages include scalability and accessibility; disadvantages include ongoing costs and potential dependency on internet connectivity.**
- C. Cloud storage guarantees zero cost.
- D. Cloud storage eliminates the need for security.

Cloud storage means your files live on remote servers that you access through the internet, rather than staying only on your own computer's hard drive. The big advantages are scalability—you can add or reduce storage without buying new hardware—and accessibility, since you can reach your files from different devices and locations. It also makes sharing and collaboration easier because everything sits in one online place. But there are trade-offs: you usually pay ongoing fees for the space you use, and your ability to work depends on having an internet connection, which can be limiting offline or with slow connectivity. Security and privacy considerations matter, too, since your data is stored off-site and protected by the provider's practices. The other statements don't fit because cloud storage isn't stored only on local drives, it doesn't come for zero cost, and it doesn't eliminate the need for security.

8. RAM vs ROM: which statement is correct about volatility and usage?

- A. RAM is non-volatile; ROM is volatile.
- B. RAM is slower than ROM.
- C. RAM is volatile and fast, used for temporary data; ROM is non-volatile, stores firmware, slower.**
- D. RAM stores firmware; ROM holds working data.

Volatility and how each type of memory is used are what differentiate RAM from ROM. RAM is volatile, meaning it loses its data when the power is turned off, and it's fast, making it ideal for the system's temporary workspace where active programs and data reside while the computer is running. ROM is non-volatile, so it keeps its contents without power, and it's typically used to store firmware—the essential instructions the machine needs to boot and initialize hardware. Because firmware doesn't change often and needs to be kept reliably, ROM is slower to access compared to RAM. So the statement that RAM is volatile and fast, used for temporary data, while ROM is non-volatile, stores firmware, and is slower, best captures how these memory types function.

9. What is a bit and a byte, and how many bits are in a byte?

- A. A bit is the smallest unit of data (0 or 1); a byte consists of 8 bits.**
- B. A byte consists of 16 bits.
- C. A bit is 8 bits; a byte is 1 bit.
- D. A bit is the smallest unit of data; a byte consists of 4 bits.

A bit is the smallest unit of data in computing, representing a 0 or a 1. A byte is made up of 8 bits, and it's the standard size used to store a single character in most systems (for example, ASCII). Because it has 8 bits, a byte can represent $2^8 = 256$ different values, which is why storage and memory are organized in bytes and powers of two. The other options don't fit because a byte is not 16 bits, a bit isn't 8 bits, and a nibble is 4 bits, not a full byte.

10. What is the primary purpose of a VPN tunnel?

A. Encrypts traffic between your device and VPN server

B. Increases download speed

C. Stores data locally

D. Blocks all traffic

The main idea is that a VPN tunnel creates a secure, private pathway for data as it travels from your device to the VPN server. The traffic is encrypted and wrapped in a tunnel, so someone on the same network can't read it or alter it, even on untrusted networks like public Wi Fi. This protects your privacy by hiding your real IP address and shielding your activity from eavesdroppers. The purpose isn't to speed up downloads, store data locally, or block traffic by itself; it's about keeping data in transit confidential and intact as it moves to the VPN server.

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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://computerbasics.examzify.com>

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

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