CYBER FUNDAMENTALS BLOCK 4 PRACTICE TEST (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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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.

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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!

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Questions

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1. **What software layer creates and runs virtual machines by abstracting hardware?**

   A. Hypervisor

   B. VM monitor

   C. BIOS

   D. Kernel

2. **Which phrase best describes the practice of presenting a full desktop environment from a centralized server to end users?**

   A. Virtual desktop infrastructure (VDI)

   B. Desktop virtualization

   C. Application virtualization

   D. Cloud computing

3. **Which architecture stores a user's profile, settings and data in a centralized data center or cloud infrastructure?**

   A. Local profile

   B. Remote data store

   C. User profile

   D. Personal workspace

4. **What is the minimum number of NICs required to operate a host server?**

   A. 1 NIC

   B. 4 NICs

   C. 2 NICs

   D. 3 NICs

5. **In a client-server model, which client type performs most processing on the server rather than locally?**

   A. Thin Client

   B. Thick Client

   C. Zero Client

   D. Workstation

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6. Windows admins manage services through _____.

A. Task Manager, Powershell, MMC.exe

B. Task Manager

C. Powershell

D. MMC.exe

7. Which component is used to define a common security boundary within a domain in Active Directory's logical structure?

A. Schemas

B. Global Catalog

C. Organizational Units

D. Sites

8. Which client virtualization architecture provides virtual desktops hosted remotely?

A. VDI

B. Presentation

C. Application

D. Application Streaming

9. Which network model allows every computer to communicate with every other computer?

A. Hybrid

B. Ring

C. Peer-to-Peer

D. Client-Server

10. Domain _____ allows files and other resources on the member server to be shared.

A. Access

B. Policy

C. Security

D. Share

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Answers

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

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Explanations

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1. What software layer creates and runs virtual machines by abstracting hardware?

A. Hypervisor

B. VM monitor

C. BIOS

D. Kernel

The concept is a hypervisor. It sits between the physical hardware and the virtual machines, abstracting the actual hardware resources (CPU, memory, storage, network) and presenting each VM with its own virtual hardware. This allows multiple VMs to run simultaneously while remaining isolated from one another. A VM monitor is sometimes used synonymously with a hypervisor, but the standard term for the software layer that creates and runs VMs by abstracting hardware is hypervisor. BIOS is firmware that initializes hardware at boot, and the kernel is the core part of an operating system; neither is the dedicated layer that manages virtualization.

2. Which phrase best describes the practice of presenting a full desktop environment from a centralized server to end users?

A. Virtual desktop infrastructure (VDI)

B. Desktop virtualization

C. Application virtualization

D. Cloud computing

Delivering a full desktop experience from a centralized server to end users is best described as virtual desktop infrastructure. In VDI, each user runs a complete desktop session hosted on servers in a data center, with the user's device acting mainly as an input/output interface while all the OS, applications, and data reside on the server. This setup enables centralized management, consistent configurations, easier security controls, and streamlined backups and updates, since the desktops are maintained and delivered from a single location. Desktop virtualization is the broader idea of running desktops in virtual environments, and VDI is a specific way to implement that concept by providing full desktops rather than just individual applications. Application virtualization, by contrast, focuses on delivering only standalone applications rather than a complete desktop environment. Cloud computing is about delivering various computing resources over the internet and is a larger umbrella that doesn't inherently specify delivering a complete remote desktop to end users.

3. Which architecture stores a user's profile, settings and data in a centralized data center or cloud infrastructure?

A. Local profile

B. Remote data store

C. User profile

D. Personal workspace

Centralized user profile architecture is about storing the user's profile, settings, and data in a server or cloud so it follows the user across devices. With this approach, when the user signs in from any device, their personalized environment is loaded from the central store, giving a consistent experience, easier backups, and centralized management for policies and security. If you used a local profile, everything lives on the device, so there's no centralization. A remote data store might hold data, but without a defined user-centric profile structure tied to logins, it won't automatically apply the same settings across devices. A personal workspace describes the user's environment but doesn't by itself guarantee centralized storage of profile data.

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4. What is the minimum number of NICs required to operate a host server?

A. 1 NIC

B. 4 NICs

C. 2 NICs

D. 3 NICs

A single network interface card is enough for a host server to connect to a network and perform its basic network operations. The NIC is what enables the server to send and receive packets, communicate with other devices, and provide services to clients. Many servers run with just one NIC, especially in smaller setups or when traffic isn't heavy. Extra NICs are often added to improve reliability or performance—for example, through NIC teaming or bonding for redundancy and load balancing, or to separate different types of traffic (such as management versus data traffic). But those additional NICs aren't required for the server to operate; the minimum needed is one.

5. In a client-server model, which client type performs most processing on the server rather than locally?

A. Thin Client

B. Thick Client

C. Zero Client

D. Workstation

The main idea is that processing power is centralized on the server while the client stays lightweight. A thin client is built to do very little work locally; it mainly handles input and the user interface, while the server does the heavy lifting—running applications, performing data processing, and storing data. Because most of the processing happens on the server, this type of client relies on a fast network connection to receive the results and send user actions back, which is why it fits the description of performing most processing on the server rather than locally. In contrast, a thick client or workstation handles substantial processing on the local device, and a zero client is even more minimal but is typically described as having essentially no local processing.

6. Windows admins manage services through _____.

A. Task Manager, Powershell, MMC.exe

B. Task Manager

C. Powershell

D. MMC.exe

Windows administrators manage services using a mix of interactive GUI tools and scripting capabilities. Task Manager lets you quickly see service status and start, stop, or restart services on the local machine, which is handy for fast, ad-hoc management. PowerShell provides powerful cmdlets (such as Get-Service, Start-Service, Stop-Service, and Set-Service) that enable automated, scripted control of services, including remote management and batch operations. Microsoft Management Console (MMC.exe) is the hosting framework for GUI management consoles; through MMC you can load the Services snap-in (typically accessed as Services.msc) to manage services in a centralized, browsable GUI. Using all three tools covers quick manual control, automated administration, and a coherent GUI console, making the combination the best fit for comprehensive service management.

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7. Which component is used to define a common security boundary within a domain in Active Directory's logical structure?

A. Schemas

B. Global Catalog

C. Organizational Units

D. Sites

Organizational Units are the level at which you carve administrative and policy scope inside a domain. Within a domain, an OU acts as a container you can nest and populate with users, groups, computers, and even other OUs. Because you can link Group Policy Objects to an OU, and control inheritance or apply security filtering, the objects inside that OU share a common set of policies and delegated administrative rights. In this way, an OU creates a focused boundary for how security settings and administration apply to a subset of the domain's objects, while still being part of the same domain. Schemas determine what kinds of objects and attributes can exist in the directory, the Global Catalog provides a forest-wide, searchable index of objects, and Sites manage replication and logon traffic across the network. None of these define a comparable boundary for policy and administrative control within a domain in the same way an Organizational Unit does.

8. Which client virtualization architecture provides virtual desktops hosted remotely?

A. VDI

B. Presentation

C. Application

D. Application Streaming

VDI delivers an entire desktop environment from centralized servers to the user's device. The desktop OS and its apps run on powerful servers, and the client only streams the display and sends input back, so the desktop is hosted remotely. This differs from presenting a single app UI from a server while the rest of the OS remains on the client, isolating or streaming individual apps rather than a full desktop session. So when the goal is to access full desktops hosted remotely, this architecture is the best match.

9. Which network model allows every computer to communicate with every other computer?

A. Hybrid

B. Ring

C. Peer-to-Peer

D. Client-Server

Direct, equal-role communication among all computers is characteristic of a peer-to-peer network. In this model, every node can act as a client and a server, sharing resources directly with other nodes without a central coordinator. Because there isn't a single server mediating everything, any node can establish a connection and exchange data with any other node that's reachable on the network. This contrasts with client-server, where clients typically talk to a central server and direct client-to-client communication isn't the default pattern. A ring network links each node to two neighbors, so messages must pass around the loop rather than every pair having a direct link. A hybrid setup mixes central and distributed elements but doesn't inherently ensure universal direct communication between all computers.

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10. Domain _____ allows files and other resources on the member server to be shared.

A. Access

B. Policy

C. Security

D. Share

Domain security regulates who can access files and other resources across member servers and under what conditions. It covers authentication, authorization, and the permissions that govern shared resources, so the domain's security settings determine whether and how a share is available to users. When domain security allows sharing, shares on member servers can be accessed by authorized users according to the configured permissions and ACLs. In contrast, policy sets the rules at a higher level, and access is the act of using those permissions, but the actual enabling mechanism for sharing across the domain is the security framework that enforces who can do what.

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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://cyberfundamentalsblock4.examzify.com

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

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