

25B IT ESSENTIALS 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.

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 type of memory can be electrically erased and reprogrammed?**
 - A. ROM
 - B. EPROM
 - C. Flash memory
 - D. Cache memory

- 2. What does a firewall primarily protect a network from?**
 - A. Hardware failures
 - B. Physical theft
 - C. Malicious attacks
 - D. Power surges

- 3. What is the purpose of a TV tuner card?**
 - A. To convert video signals into digital format
 - B. To enable viewing of television signals on a computer
 - C. To enhance audio output quality
 - D. To capture video from external devices

- 4. Which two storage devices use a magnetic medium for storing data?**
 - A. USB Flash Drive and SSD
 - B. Optical Disc and Tape Drive
 - C. Tape Drive and Hard Disk Drive
 - D. Memory Card and Floppy Disk

- 5. GDDR Synchronous Dynamic RAM is designed for use with which type of processing?**
 - A. Data storage
 - B. General computing
 - C. Graphics rendering
 - D. Network management

- 6. What is the approximate voltage that can cause harm to an individual or equipment?**
- A. 15 volts
 - B. 30 volts
 - C. 50 volts
 - D. 100 volts
- 7. What does RAID stand for in data storage technology?**
- A. Redundant Array of Independent Disks
 - B. Remote Access Interactive Device
 - C. Rapid Array of Integrated Data
 - D. Reliable Architecture for Internal Drives
- 8. Which electrical characteristic must be present in equipment for safety?**
- A. Shockproof
 - B. Grounded
 - C. Non-conductive
 - D. Insulated
- 9. Which of the following devices can both input and output data?**
- A. Webcam
 - B. Printer
 - C. Microphone
 - D. Touchscreen Monitor
- 10. What is the primary function of the GPU?**
- A. To process audio
 - B. To manage memory
 - C. To render graphics and images
 - D. To provide network connectivity

Answers

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

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Explanations

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1. What type of memory can be electrically erased and reprogrammed?

- A. ROM
- B. EPROM
- C. Flash memory
- D. Cache memory

Flash memory is a type of non-volatile storage that can be electrically erased and reprogrammed. This makes it distinct from other forms of memory, such as traditional ROM, which can only be read and typically cannot be modified after its initial programming. Flash memory is widely used in various applications, including solid-state drives (SSD), USB flash drives, and memory cards, allowing for data retention without power while also providing the versatility to be rewritten. The ability to be electrically erased and reprogrammed allows Flash memory to be utilized in dynamic environments where data needs to be updated frequently. This characteristic is essential for devices that require storage which can adapt, such as smartphones and digital cameras, enhancing usability and efficiency in data management.

2. What does a firewall primarily protect a network from?

- A. Hardware failures
- B. Physical theft
- C. Malicious attacks
- D. Power surges

A firewall primarily protects a network from malicious attacks by monitoring and controlling incoming and outgoing network traffic based on predetermined security rules. Its main function is to act as a barrier between a trusted internal network and untrusted external networks, such as the internet. Firewalls can block unauthorized access to network resources and prevent various types of attacks, such as malware, intrusion attempts, and other security threats. By filtering traffic, a firewall helps ensure that only legitimate users can access certain resources and that any potentially harmful traffic is denied. In contrast, aspects such as hardware failures, physical theft, and power surges involve different types of risks and protective measures. For instance, hardware failures may be mitigated through redundancy and backup systems, physical theft is addressed through security personnel or devices, and power surges can be managed with surge protectors and uninterruptible power supplies (UPS). Each of these concerns falls outside the primary function of a firewall.

3. What is the purpose of a TV tuner card?

- A. To convert video signals into digital format
- B. To enable viewing of television signals on a computer
- C. To enhance audio output quality
- D. To capture video from external devices

The purpose of a TV tuner card is to enable the viewing of television signals on a computer. This hardware component allows users to receive and decode broadcast television signals, whether they are analog or digital, and display them on their computer screen. With a TV tuner card, individuals can watch live TV, record programs, and integrate other television functionalities directly onto their desktop or laptop, thus converting a typical computer into a multimedia entertainment center. The other potential functions outlined in the incorrect options do not specifically pertain to the core functionality of a TV tuner card. For example, converting video signals into digital format may occur but is not the primary function of a tuner card, nor is the enhancement of audio output quality, which is usually handled by sound cards or audio processing systems. Capturing video from external devices is generally the purview of video capture cards, which are distinct from TV tuner cards that focus on television signal reception.

4. Which two storage devices use a magnetic medium for storing data?

- A. USB Flash Drive and SSD
- B. Optical Disc and Tape Drive
- C. Tape Drive and Hard Disk Drive**
- D. Memory Card and Floppy Disk

The correct answer highlights two storage devices that utilize a magnetic medium to store data: the Tape Drive and Hard Disk Drive. Tape drives store data on magnetic tape, allowing for sequential access, which is particularly useful for backups and archiving large volumes of data due to their high capacity and cost-effectiveness. The magnetic tape is coated with a magnetic material that allows data to be written and read using a magnetic head. Hard disk drives (HDDs) also employ a magnetic medium, utilizing spinning disks coated with a magnetic material to store data. Data is read and written by moving read/write heads that are positioned over these spinning disks. HDDs are widely used for regular data storage in computers and servers due to their balance of speed and capacity. In contrast, the other options contain devices that do not primarily use magnetic media. USB flash drives and SSDs rely on flash memory, which is non-volatile and does not involve magnetic components. Optical discs utilize lasers to read and write data on the surface of the disc, and memory cards use similar flash technology. Floppy disks did use magnetic media, but they are largely considered obsolete and not a common reference point today. Thus, the correct pairing of Tape Drive and Hard Disk Drive in this context demonstrates

5. GDDR Synchronous Dynamic RAM is designed for use with which type of processing?

- A. Data storage
- B. General computing
- C. Graphics rendering**
- D. Network management

GDDR Synchronous Dynamic RAM, or Graphics Double Data Rate SDRAM, is specifically designed to enhance the performance of graphics processing units (GPUs) in handling complex graphical tasks. This memory type is optimized for high bandwidth and speeds, which are crucial for rendering high-definition graphics, images, and video efficiently. Its architecture allows for rapid data transfer, making it ideal for applications that require intensive graphical computations, such as video games, 3D rendering, and simulations. In contrast, the other options represent different types of processing needs. Data storage usually refers to components like hard drives or SSDs, which serve different purposes unrelated to high-speed graphics processing. General computing applications prioritize versatility in a range of tasks but do not require the specialized data throughput that GDDR memory offers. Similarly, while network management systems do require fast data transfer, they do not rely on the specialized graphical processing capabilities that GDDR RAM provides. Thus, the correct association of GDDR SDRAM is with graphics rendering.

6. What is the approximate voltage that can cause harm to an individual or equipment?

- A. 15 volts
- B. 30 volts**
- C. 50 volts
- D. 100 volts

The voltage level that can potentially cause harm to an individual or equipment is typically around 30 volts. This threshold is significant because levels above this can easily pose a risk of electric shock or electrical malfunctions in various devices. The human body's resistance can vary, but anything over 30 volts can breach the skin resistance and increase the risk of electric shock, especially under certain conditions such as moisture or damaged skin. When evaluating electrical safety, it's important to consider both the voltage and the current, as well as the environment in which an individual may be exposed to electrical hazards. Voltages above the 30-volt mark can cause dangerous conditions, particularly if proper safety precautions are not observed. As such, 30 volts is often cited in safety standards when discussing the threshold above which electrical safety practices should be enforced.

7. What does RAID stand for in data storage technology?

- A. Redundant Array of Independent Disks**
- B. Remote Access Interactive Device
- C. Rapid Array of Integrated Data
- D. Reliable Architecture for Internal Drives

RAID stands for Redundant Array of Independent Disks. This technology is used to combine multiple physical disk drive components into a single logical unit for the purposes of data redundancy, performance improvement, or both. In a RAID configuration, data can be mirrored (copied) across multiple disks or striped (spread) across them to enhance access speeds and provide fault tolerance. The significance of the term "Redundant" in this context highlights the core purpose of RAID: to protect against data loss. By using multiple disks, even if one disk fails, the data can still be retrieved from another disk in the array. The term "Independent" emphasizes that the disks in a RAID setup can be any standard drives, allowing for flexibility and scalability in data storage solutions. Understanding RAID is essential for IT professionals, as implementing it can greatly affect data integrity and system performance. Each RAID level offers different balances of performance, data protection, and capacity—making it a foundational concept in data storage strategies.

8. Which electrical characteristic must be present in equipment for safety?

- A. Shockproof
- B. Grounded**
- C. Non-conductive
- D. Insulated

For safety in electrical equipment, grounding is essential. Grounding provides a direct path for electrical current to flow safely to the ground in the case of a fault, such as a short circuit. This helps prevent the build-up of voltages that could lead to electrical shocks or fires. When an electrical device is properly grounded, excess electricity will follow this path rather than causing danger to users or damaging the equipment. In contrast, while the other options refer to characteristics that enhance safety, they do not provide the same level of protective grounding. Equipment can be non-conductive or insulated to prevent accidental contact with live electrical parts, but these measures do not offer a pathway for fault currents to safely dissipate. Shockproof devices might reduce the risk of electrical shock but do not replace the necessity of grounding, which is a fundamental safety measure mandated in electrical installations to protect both people and equipment.

9. Which of the following devices can both input and output data?

- A. Webcam
- B. Printer
- C. Microphone
- D. Touchscreen Monitor**

A touchscreen monitor can both input and output data, which makes it a versatile device in computing environments. As an output device, it displays visual information such as graphics, videos, and text, similar to a standard monitor. Meanwhile, it can also serve as an input device; users can interact directly with the screen through touch gestures like tapping, swiping, or dragging. This dual functionality allows for a more intuitive user interface, making touchscreen monitors popular in various applications, from smartphones to interactive kiosks and tablets. Other options listed each have a singular function: a webcam is primarily an input device capturing video, a printer is solely an output device producing hard copies of documents, and a microphone is an input device that captures audio. None of these can perform the dual role that a touchscreen monitor can.

10. What is the primary function of the GPU?

- A. To process audio
- B. To manage memory
- C. To render graphics and images**
- D. To provide network connectivity

The primary function of the GPU, or Graphics Processing Unit, is to render graphics and images. This specialized hardware is designed to handle complex mathematical calculations and processing required for producing images, animations, and video in a way that is efficient and optimized for visual output. Unlike the CPU, which can handle a broad range of tasks, the GPU is tailored for handling the parallel processing tasks involved in rendering high-quality graphics. This makes it essential for gaming, video editing, and any applications that require intense graphic computations. Graphics rendering involves processing pixel data, textures, lighting, and transformations to create the visuals that you see on screens. The advancements in GPU technology have also enabled them to perform other operations beyond graphics, such as computations for artificial intelligence and deep learning, but their core function remains centered on graphics rendering and image processing.

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:

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

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