

CompTIA A+ (220-901) Practice Exam (Sample)

Study Guide



Everything you need from our exam experts!

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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. Don't worry about getting everything right, 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, and take breaks to retain information better.

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.

7. Use Other Tools

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 device should you suspect if you smell something burning coming from the PC?**
 - A. Hard drive**
 - B. Power supply**
 - C. Motherboard**
 - D. CPU**

- 2. What is the purpose of the power supply unit (PSU) in a computer?**
 - A. To regulate data flow**
 - B. To convert AC power to DC power and distribute it to components**
 - C. To manage motherboard communication**
 - D. To cool the internal components**

- 3. What technology is used in Windows for file backup?**
 - A. Backup Wizard**
 - B. File History**
 - C. System Restore**
 - D. Disk Cleanup**

- 4. What does the term "ping" measure in networking?**
 - A. The signal strength of a wireless network**
 - B. The round-trip time to send a packet to a destination and receive a response**
 - C. The amount of data transferred over a network**
 - D. The speed of the internet connection**

- 5. In which component can you find the CPU?**
 - A. Power Supply**
 - B. Motherboard**
 - C. Graphics Card**
 - D. RAM Module**

- 6. What does the acronym BIOS stand for?**
- A. Basic Integrated Operating System**
 - B. Basic Input/Output System**
 - C. Binary Input/Output System**
 - D. Basic Internal Operating System**
- 7. What is the maximum length for a USB 2.0 cable?**
- A. 3 meters**
 - B. 5 meters**
 - C. 10 meters**
 - D. 15 meters**
- 8. What does the term "virtual memory" refer to?**
- A. A memory management technique that uses disk space to extend RAM**
 - B. A type of permanent storage**
 - C. Temporary storage in the CPU**
 - D. Physical memory installed on the motherboard**
- 9. Which component is primarily responsible for processing instructions in a computer?**
- A. RAM**
 - B. Hard Drive**
 - C. Central Processing Unit (CPU)**
 - D. Motherboard**
- 10. What does BIOS stand for?**
- A. Basic Input/Output System**
 - B. Binary Integrated Operating System**
 - C. Basic Internet Operating System**
 - D. Binary Input/Output Standard**

Answers

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

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Explanations

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1. What device should you suspect if you smell something burning coming from the PC?

- A. Hard drive**
- B. Power supply**
- C. Motherboard**
- D. CPU**

If you notice a burning smell coming from the PC, the most likely suspect is the power supply. The power supply is a crucial component as it converts electricity from the outlet into usable power for the computer's components. When a power supply malfunctions, it can overheat, which may lead to burning components inside it. This overheating can produce a noticeable burning smell due to electrical components or insulation starting to fail. Additionally, power supplies sometimes emit smoke or a burnt odor without necessarily failing completely. This can signal an immediate hazard, and it's advisable to shut down the PC and inspect the power supply first before looking at other components. While issues with the hard drive, motherboard, or CPU can also produce smells when they fail, the power supply is more commonly associated with a burning odor due to its role and proximity to the power source. Therefore, smelling something burning leads you to suspect the power supply as the most critical and immediate concern.

2. What is the purpose of the power supply unit (PSU) in a computer?

- A. To regulate data flow**
- B. To convert AC power to DC power and distribute it to components**
- C. To manage motherboard communication**
- D. To cool the internal components**

The power supply unit (PSU) in a computer is essential for converting alternating current (AC) from the wall outlet into direct current (DC), which is the form of electricity required by the computer's internal components to operate properly. Most components in a computer, such as the motherboard, hard drives, and graphics cards, require DC voltage to function. The PSU not only performs this conversion but also distributes the appropriate voltages to different parts of the system, ensuring that each component receives the correct power needed for operation. This conversion and distribution are critical for the stability and performance of the entire computer system.

3. What technology is used in Windows for file backup?

- A. Backup Wizard
- B. File History**
- C. System Restore
- D. Disk Cleanup

File History is a feature in Windows that specifically focuses on backing up user files. It automatically saves copies of files from designated libraries, desktop, favorites, and contacts folders, allowing users to recover versions of files if they are accidentally deleted or modified. This functionality is designed to run in the background, making it user-friendly and efficient for regular backups. Unlike the other options, File History is dedicated to ensuring that personal data is secure and recoverable over time. Other methods mentioned serve different purposes: System Restore focuses on the operating system and software configurations rather than user data, while Disk Cleanup is intended to free up space on a hard drive by removing temporary files and system caches. The Backup Wizard may help perform backups in some contexts but is not the primary tool recognized for file backup in modern Windows systems. Hence, File History is recognized as the correct and relevant technology for file backup in Windows.

4. What does the term "ping" measure in networking?

- A. The signal strength of a wireless network
- B. The round-trip time to send a packet to a destination and receive a response**
- C. The amount of data transferred over a network
- D. The speed of the internet connection

The term "ping" refers to the process of measuring the round-trip time it takes for a packet of data to be sent from a source to a destination and for a response to be received back at the source. This measurement is crucial in networking as it helps determine the latency or delay in the network. By sending an Internet Control Message Protocol (ICMP) echo request to a specified host and waiting for an echo reply, the system can assess the speed of the connection and the performance of the network. This concept is essential for troubleshooting connectivity issues, ensuring that devices can communicate, and checking the responsiveness of remote servers. A lower ping time typically indicates a more responsive and faster network connection, making this measurement a vital aspect of network performance analysis.

5. In which component can you find the CPU?

- A. Power Supply
- B. Motherboard**
- C. Graphics Card
- D. RAM Module

The CPU, or Central Processing Unit, is found on the motherboard, which serves as the primary circuit board in a computer. The motherboard is the central hub that connects and communicates with various components of the computer, including the CPU, memory (RAM), storage devices, and peripheral interfaces. The CPU is physically mounted in a socket on the motherboard, and it communicates with other components via a system of buses and pathways established on the motherboard. This location is crucial because the motherboard provides the necessary connections and power for the CPU to operate effectively and coordinate tasks with other hardware. The power supply, graphics card, and RAM module serve different functions within the computer system. The power supply provides electrical power to the system, the graphics card is responsible for rendering images and video, and the RAM module serves as temporary storage for data that the CPU can access quickly. Each of these components interacts with the motherboard but does not house the CPU itself.

6. What does the acronym BIOS stand for?

- A. Basic Integrated Operating System
- B. Basic Input/Output System**
- C. Binary Input/Output System
- D. Basic Internal Operating System

The correct answer is based on the widely accepted definition of BIOS, which stands for Basic Input/Output System. This is crucial as the BIOS is a fundamental component of computer systems that initializes hardware during the booting process before handing control over to the operating system. It performs the POST (Power-On Self Test) to ensure that the necessary hardware components are functioning correctly. In addition to its role in hardware initialization, the BIOS also provides an interface between the operating system and the hardware. It includes settings for configuring hardware components and managing the boot sequence. Understanding the function of BIOS is significant for troubleshooting and maintaining computers, as it lays the groundwork for system operation. Other options, although they include similar terminology, do not accurately describe the function and purpose of BIOS. Basic Integrated Operating System, for instance, suggests it is an operating system, which it is not, as it does not manage software applications or perform complex operating functions. Binary Input/Output System introduces confusion by implying a technical aspect unrelated to BIOS's actual role. Lastly, Basic Internal Operating System misrepresents BIOS as an operating system, further distancing from its true function. This emphasis on the correct terminology is essential for clarity in the field of computer hardware and support.

7. What is the maximum length for a USB 2.0 cable?

- A. 3 meters**
- B. 5 meters**
- C. 10 meters**
- D. 15 meters**

The maximum length for a USB 2.0 cable is 5 meters. This specification is important for ensuring effective data transmission while maintaining signal integrity. Beyond this length, the quality of data transmission can deteriorate, leading to potential issues such as signal loss or data errors. USB 2.0 utilizes a specific signaling method that can only reliably transmit data over this distance. For longer runs, signal amplifiers or hubs must be used to maintain performance levels. Understanding this specification helps technicians in ensuring proper installation of USB devices and troubleshooting connectivity issues.

8. What does the term "virtual memory" refer to?

- A. A memory management technique that uses disk space to extend RAM**
- B. A type of permanent storage**
- C. Temporary storage in the CPU**
- D. Physical memory installed on the motherboard**

The term "virtual memory" refers to a memory management technique that uses disk space to extend the available RAM of a system. In computers, RAM (Random Access Memory) provides fast access to data that is actively being used; however, the amount of RAM is limited and can often be insufficient for running multiple applications or handling large files. Virtual memory addresses this limitation by creating an area on the hard drive, known as the swap file or page file, that can be used to temporarily hold data that is not currently needed in RAM. When the operating system runs out of physical memory, it can move data that is not being actively accessed from RAM to this disk space, which allows more applications to run simultaneously or enables larger applications to function without crashing due to memory shortages. Although accessing data from disk space is slower than accessing it from RAM, this technique allows systems to use more memory than is physically available, which is essential for multitasking and performance. The understanding of virtual memory is critical for IT professionals since it impacts system performance and resource management. It's fundamental to recognize how effective use of virtual memory can improve user experience, especially in systems with constrained physical memory.

9. Which component is primarily responsible for processing instructions in a computer?

- A. RAM**
- B. Hard Drive**
- C. Central Processing Unit (CPU)**
- D. Motherboard**

The Central Processing Unit (CPU) is the primary component responsible for processing instructions in a computer. It executes commands from programs and performs calculations and logical operations that are essential for the functioning of computer applications. The CPU interprets and carries out instructions from the operating system and software, making it the brain of the computer. RAM (Random Access Memory) serves as temporary storage that holds data and instructions that the CPU is currently using, but it does not process instructions itself. The hard drive is a storage device that retains data and programs long-term, while the motherboard is the main circuit board that houses the CPU and other components, facilitating communication between them. However, the actual execution and processing of instructions is solely the domain of the CPU.

10. What does BIOS stand for?

- A. Basic Input/Output System**
- B. Binary Integrated Operating System**
- C. Basic Internet Operating System**
- D. Binary Input/Output Standard**

The term BIOS stands for Basic Input/Output System. This is one of the foundational components in a computer system, as it is a type of firmware that is stored on a chip on the motherboard. Its primary role is to initialize and test the hardware components of the system during the booting process before the operating system takes over. The BIOS provides a set of low-level routines that software can use to communicate with hardware devices, such as the keyboard, mouse, and storage drives. The BIOS also allows for hardware configuration settings, enabling users to adjust system parameters like boot order and clock speeds. Understanding the function of BIOS is crucial for troubleshooting startup issues, managing hardware resources, and ensuring compatibility between the system's components and the operating system. It's important to differentiate this from other terms listed in the options. For instance, Binary Integrated Operating System and Basic Internet Operating System do not represent any standard or definition recognized in computing. Similarly, Binary Input/Output Standard misrepresents the purpose and nature of the BIOS.

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://comptiaaplus220901.examzify.com>

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