Arizona State University (ASU) CIS105 Computer Applications and Information Technology Midterm Practice Exam (Sample)

Study Guide

BY EXAMZIFY

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. 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

1. **In a DBMS, what is a row called?**
   A. Record
   B. Field
   C. Table
   D. Instance

2. **Which of the following is a type of backup method for less frequently accessed data?**
   A. Real-time backup
   B. Incremental backup
   C. Archived backup
   D. Full backup

3. **Which area is emphasized by the 80 Plus initiative?**
   A. Software optimization
   B. Energy efficiency of power supplies
   C. Network security
   D. Data storage solutions

4. **Which operating system is known for its open-source license?**
   A. Windows
   B. macOS
   C. Linux
   D. Unix

5. **What does the acronym BIOS stand for?**
   A. Basic Input / Output System
   B. Binary Integrated Operating System
   C. Basic Internal Operating System
   D. Binary Input Output Standard

6. **Which type of client typically requires more storage space?**
   A. Fat Clients
   B. Thin Clients
   C. Cloud Clients
   D. Smart Clients

7. **What function is responsible for storing and organizing a user's work in computer files?**

   A. File Manager

   B. Task Manager

   C. Control Panel

   D. Disk Utility

8. **What type of program is used to organize the structure of a disk?**

   A. Disk Utility

   B. Defragmentation

   C. File Management

   D. Disk Cleanup

9. **What is the primary function of a hub in a network?**

   A. To manage bandwidth

   B. To connect multiple devices

   C. To store data

   D. To assign IP addresses

10. **What is typically the first layer of software that a computer executes?**

   A. Operating System

   B. Application Software

   C. Firmware

   D. Utility Software

Answers

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

Explanations

1. In a DBMS, what is a row called?

A. Record

B. Field

C. Table

D. Instance

In a Database Management System (DBMS), a row is called a record. A record is a complete set of information stored in a single row of a database table, where each row typically represents a unique entry or instance of data related to the attributes defined by the columns (or fields) in that table. For example, in a table that stores information about students, each row would contain all the details for one student, such as their name, student ID, and contact information. The term "record" effectively conveys that this particular entry includes all associated data points that are stored together, making it a fundamental concept in understanding how data organization works within a database. This is foundational in database design and management, helping users and developers access and manage the data more effectively.

2. Which of the following is a type of backup method for less frequently accessed data?

A. Real-time backup

B. Incremental backup

C. Archived backup

D. Full backup

Archived backup is specifically designed for less frequently accessed data. This type of backup involves storing data that is not regularly in use, often moving it to a cheaper storage medium to optimize cost and resource usage. The data in an archived backup is preserved for long-term retention and can be retrieved when necessary, but it's not required for day-to-day operations. In contrast, real-time backup focuses on continuously updating the backup as changes to the data occur, making it ideal for data that needs to be accessed immediately and frequently. Incremental backup involves saving only the data that has changed since the last backup, which is useful for efficiency but still targets operational data. Full backup, while comprehensive in covering all data at once, is not tailored to handle less frequently accessed data specifically. Thus, archived backup is best suited for this purpose, effectively managing the storage of data that isn't required on a regular basis.

3. Which area is emphasized by the 80 Plus initiative?

A. Software optimization

B. Energy efficiency of power supplies

C. Network security

D. Data storage solutions

The 80 Plus initiative specifically focuses on improving the energy efficiency of power supplies used in computers and other electronic devices. Its primary goal is to promote power supplies that operate efficiently and waste less energy, which not only reduces operational costs but also lessens the environmental impact associated with energy consumption. By setting minimum efficiency standards, the initiative encourages manufacturers to design and produce power supplies that exceed these benchmarks, leading to advancements in energy-saving technology. This emphasis on energy efficiency is crucial in today's context where energy costs and environmental concerns are at the forefront of technology discussions. The program categorizes power supplies into different certification levels based on their efficiency, such as Bronze, Silver, Gold, and Platinum, encouraging consumers to choose more efficient options. The other choices provided do relate to important aspects of technology but do not align with the specific focus of the 80 Plus initiative. Software optimization, network security, and data storage solutions, while significant in their respective fields, do not address the initiative's aim of enhancing power supply efficiency.

4. Which operating system is known for its open-source license?

A. Windows

B. macOS

C. Linux

D. Unix

The operating system known for its open-source license is Linux. This means that the source code for Linux is freely available for anyone to view, use, modify, and distribute. This openness fosters a collaborative environment where developers from around the world can contribute to the improvement and evolution of the software.   Linux's open-source nature has led to the creation of numerous distributions (distros) that cater to different user needs, from general-purpose use to specialized applications. This flexibility is a major reason for its widespread adoption in various environments, including servers, desktops, and embedded systems. In contrast, other operating systems like Windows and macOS are proprietary, meaning their source code is not available to the public, and they have restricted licensing terms. Unix, while historically influential in the development of operating systems, is also not an open-source system in the same way that Linux is, as it is governed by a variety of licensing agreements. This distinction emphasizes why Linux stands out as the correct answer in relation to open-source licenses.

5. What does the acronym BIOS stand for?

A. Basic Input / Output System

B. Binary Integrated Operating System

C. Basic Internal Operating System

D. Binary Input Output Standard

The acronym BIOS stands for Basic Input / Output System, which refers to the firmware that initializes and tests hardware components when a computer is powered on. It is crucial for the booting process, as it provides an interface between the computer's hardware and the operating system. The BIOS performs a Power-On Self Test (POST) to check if hardware components such as the RAM, hard drives, and other peripherals are functioning correctly before handing control over to the operating system.   This foundational system is stored on a non-volatile memory chip on the motherboard and is essential for the basic operation of the computer. Its role in the startup and hardware management of a computer makes it a fundamental concept in computer science and information technology.

6. Which type of client typically requires more storage space?

A. Fat Clients

B. Thin Clients

C. Cloud Clients

D. Smart Clients

Fat clients typically require more storage space because they are designed to perform extensive computing tasks on the user's device rather than relying heavily on a central server. This architecture allows them to store not only the operating system and essential software applications but also the necessary data and files locally. Since fat clients support applications that may require significant processing capabilities and can run independently, they need additional storage to accommodate these resources. In contrast, thin clients rely on a remote server to handle most processing and store applications and data, leading to a significantly reduced need for local storage. Cloud clients, similarly, depend on cloud services for storage and processing, which means they utilize minimal local resources. Smart clients blend features of both fat and thin clients, but they usually do not require as much local storage as a fat client because they often manage only essential data locally while connecting to remote resources for more extensive functionalities.

7. What function is responsible for storing and organizing a user's work in computer files?

   A. File Manager

   B. Task Manager

   C. Control Panel

   D. Disk Utility

The function responsible for storing and organizing a user's work in computer files is the File Manager. A File Manager is a tool that provides a user interface to manage files and folders on the computer. It allows users to create, delete, move, rename, and organize files into directories, making it easy to find and access different pieces of work efficiently. This is essential for maintaining an organized workspace and ensuring that important documents are easily retrievable. In contrast, the Task Manager monitors the performance of various running applications and system processes rather than handling file organization. The Control Panel is primarily used for configuring system settings and hardware devices, which does not focus on file storage or organization. Disk Utility is focused on managing disk drives, such as formatting and repairing them, rather than organizing files and folders for a user. Thus, the File Manager is crucial for any user looking to keep their work organized within the file system.

8. What type of program is used to organize the structure of a disk?

   A. Disk Utility

   B. Defragmentation

   C. File Management

   D. Disk Cleanup

The correct choice is that a disk utility program is designed specifically to organize the structure of a disk. Disk utilities can perform various tasks related to the management of disk drives, which include creating, deleting, and formatting partitions, as well as checking and repairing filesystem errors. They help in structuring how data is saved and accessed on the disk, contributing to efficient data retrieval and storage. Defragmentation, while it has the role of reorganizing fragmented data on a disk, does not fundamentally organize the structure of the disk itself. Rather, it enhances the performance of the disk by rearranging pieces of files to be stored in contiguous spaces, which can speed up access times but does not address the overall organization of disk partitions and formatting. File management refers to the methods and processes used to store, retrieve, and organize files within the operating system but doesn't inherently involve the structure of the disk itself. Disk cleanup involves freeing up space on a disk by removing unnecessary files but does not relate to the structural organization of the disk. Thus, a disk utility program is indeed the correct answer for organizing the structure of a disk.

9. What is the primary function of a hub in a network?

A. To manage bandwidth

B. To connect multiple devices

C. To store data

D. To assign IP addresses

The primary function of a hub in a network is to connect multiple devices. Hubs serve as networking hardware that enables various devices, such as computers and printers, to communicate with each other within a local area network (LAN).   When data is sent to the hub, it broadcasts that data to all connected devices rather than directing it to a specific device. This means that while a hub connects multiple devices, it does not have intelligence in the data transfer process or manage the traffic. Hubs operate at the physical layer of the OSI model, and their main role is to facilitate communication between devices on the same network segment, which is essential for creating a functional network environment.   In contrast, options such as managing bandwidth, storing data, or assigning IP addresses are functions typically associated with more advanced networking devices like switches, routers, and servers, which perform specific roles that a basic hub does not address.

10. What is typically the first layer of software that a computer executes?

A. Operating System

B. Application Software

C. Firmware

D. Utility Software

The first layer of software that a computer executes when it is powered on is the operating system. The operating system acts as an intermediary between the computer hardware and the application software that runs on the machine. It manages the hardware resources, such as the CPU, memory, and storage, allowing application software to function effectively.   When a computer starts up, the firmware, which is low-level software programmed into the hardware, initializes the hardware components and hands off control to the operating system. However, the operating system is responsible for managing all aspects of operation once the system is running and is the first software layer that provides an environment in which other applications can operate effectively.   Application software, such as word processors or web browsers, cannot run until the operating system is fully loaded and operational. Similarly, utility software, which performs maintenance tasks for the computer system, operates within the framework established by the operating system. Thus, understanding the role of the operating system is crucial as it sets the stage for all other software functions.

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://asu-cis105midterm.examzify.com

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