[UPDATED 2024 WGU Introduction-to-IT Questions Prepare with Free Demo of PDF [Q39-Q61

[UPDATED 2024] WGU Introduction-to-IT Questions Prepare with Free Demo of PDF
NEW 2024 Certification Sample Questions Introduction-to-IT Dumps & Practice Exam

Q39. Which item is an input device?
* Flash Drive
* CD
* Scanner
* Printer

An input device is any hardware device that sends data to a computer, allowing you to interact with and control it. Input devices enable users to input information into the computer system. Let’s break down the options:

*Flash Drive (A): A flash drive (also known as a USB drive or thumb drive) is a storage device, not an input device. It allows you to store and transfer data but does not directly input data into the computer.

*CD (B): A CD (compact disc) is also a storage medium, typically used for storing audio, video, or software files. Like a flash drive, it is not an input device.

*Scanner : A scanner is a classic example of an input device. It captures physical documents, images, or text and converts them into digital data that the computer can process. Scanners are commonly used for tasks like digitizing photos, creating PDFs, or scanning documents.

*Printer (D): A printer is an output device, not an input device. It produces hard copies (printed documents) based on digital data received from the computer.

In summary, the correct answer is C. Scanner, as it directly inputs data into the computer system.

References:

1.Computer Hope: What is an Input Device?

2.BBC Bitesize: What are input and output devices?

Q40. What is the correct definition of a join query?
* A join is a search of data in the relation that fit specific parameters.
* A join returns all records from a relation but only for certain attributes or fields.
* A join is a collection of records organized in some manner.
* A join withdraws information from multiple relations.

A join in the context of a database, specifically SQL, is an operation that combines rows from two or more tables based on a related column between them. The purpose of a join is to retrievedata that exists across multiple tables which share a common field or key. The process typically involves the following steps:

1.Identify the Tables: Determine the tables that you want to join.

2.Determine the Common Column(s): Find the column(s) that the tables share, which will be used to match rows.

3.Choose the Type of Join: Decide on the type of join that suits your needs (INNER, LEFT, RIGHT, FULL).

4.Construct the Join Query: Write the SQL statement that specifies the join condition using the ON keyword.

5.Execute the Query: Run the query in the database to retrieve the combined results.

For example, if you have an Orders table and a Customers table, and both have a CustomerID column, you can join them on this column to retrieve a list of orders along with the customer information for each order.

References: The definition and explanation are based on standard SQL documentation and educational resources such as W3Schools1 and GeeksforGeeks2, which provide comprehensive guides on SQL joins.

Q41. Which method is frequently used to protect software?
* Copyrights
* GNU General Public License
* Fair use
* Trademarks

Software protection involves safeguarding software applications from unauthorized use, distribution, or reproduction. Various methods are employed to protect software, but one of the most frequently used approaches is through copyrights. Here’s why:

1.Copyrights:

oDefinition: Copyright protection grants exclusive rights to the creator or owner of the software. It prevents others from copying, distributing, or using the software without permission.

oHow It Works:

When a software developer creates an original program, they automatically hold the copyright to it.

The copyright holder can specify licensing terms and conditions, allowing or restricting certain uses.

Users must comply with these terms to legally use the software.

oBenefits:

Legal Protection: Copyright laws provide legal recourse against infringement.

Revenue Control: Developers can license their software and generate revenue.

Innovation Encouragement: Copyright protection encourages innovation by rewarding creators.

oReferences: 12

2.Other Methods:

oGNU General Public License (GPL): GPL is an open-source license that allows users to freely use, modify, and distribute software. However, it requires derivative works to be open-source as well.

oFair Use: Fair use is a legal doctrine that permits limited use of copyrighted material without permission for purposes such as criticism, commentary, or education.

oTrademarks: Trademarks protect brand names, logos, and symbols associated with software. While not directly related to software protection, trademarks play a role in branding and identity.

In summary, while other methods exist, copyrights remain a fundamental and frequently used approach to protect software from unauthorized use and ensure developers’ rights are respected.

References:

1.CrowdStrike: Software Security

2.Baeldung: Methods to Protect Software From Piracy

3.Microcosm: What is software protection?

Q42. What type of database uses parent-child relationships?
* Embedded
* Flat file
* Family file
* Hierarchical

Hierarchical databases use a parent-child relationship model. In this type of database, data is organized into a tree-like structure that

implies a single-parent for each record. This model allows the representation of data in a hierarchy which is very much like a family tree. Each parent can have multiple children, but each child has only one parent (also known as a one-to-many relationship).

The hierarchical database model was one of the first database models, historically used with mainframe computers. In this model, records contain information about their groups of parent/child relationships, similar to a family tree. If we consider a database of employees,each department would be a parent node, and each employee within that department would be a child node of the department.

References: The concept of parent-child relationships in databases is well-established and discussed in various educational resources and forums. For example, Stack Overflow provides explanations of how these relationships work in practice12. Additionally, other resources like phoenixnap.com explain how these relationships are established in databases3.

Q43. How can the organizational culture support ethical guidelines?
* By outlining the protocols to support security and privacy of data
* By creating the system requirements for computers in the organization
* By creating the government regulations that apply to the organization
* By outlining the roles of IT specialists in the organization

1.Ethical Leadership: Leaders should model ethical behavior, make decisions in the best interest of stakeholders, and ensure fairness. Ethical leaders influence followers to do the right thing.

2.Ethical Practices: Implement critical organizational practices related to ethics, including recruitment, training, policies, accountability, and decision-making.

3.Ethical Climate: Communicate ethical expectations beyond policies. Foster an environment where employees understand ethics and their implications.

References:

1.How to Create a Culture of Ethics & Accountability in the Workplace

2.Ethics and Organizational Culture

3.How Ethical Leadership Impacts Organizational Culture

4.The Relationship Between Ethics and Organizational Culture

Q44. What type of software utilizes a commercial software license?
* Proprietary
* Shareware
* Public Domain
* Open Source

*Proprietary software refers to software that is closed source and is commercially licensed. It is developed by a specific company or individual, and its source code is not publicly available.

*In proprietary software, the end user does not have the authority to modify or reuse the software code. The software is typically distributed as operational code only, without providing access to the underlying source code.

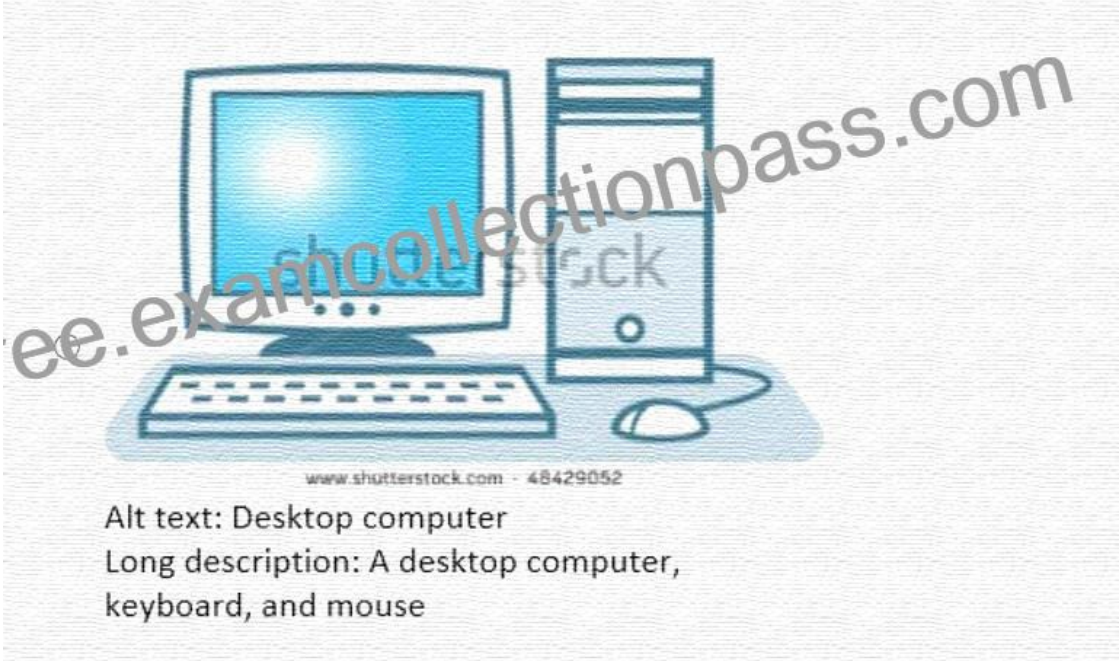
*Proprietary licenses often include terms that prohibit “reverse engineering” of the object code with the intention of obtaining the source code.

*Examples of proprietary software include Microsoft Office, Adobe Photoshop, and many commercial applications.

*References:

o1 Snyk. “What is a software license? 5 Types of Software Licenses Explained.” Link o2 Turing. “Open Source vs. Commercial Software License: What Do You Need?” Link o3 License.md. “What type of license is needed for Commercial Use Software?” Link o4 Thales Group. “Commercial License FAQ.” Link Note: While proprietary software utilizes a commercial software license, it’s essential to understand that open-source software (which is freely available and allows modification and reuse of source code) falls under a different category. However, for the specific question, the correct answer is A. Proprietary.

Q45. Which image represents the basic structure of a computer network?



* Exhibit A
* Exhibit B
* Exhibit C
* Exhibit D

the basic structure of a computer network is the one depicting cloud computing. In this image, a blue cloud labeled

“Cloud” is connected to four different types of devices: a desktop computer, tablet, phone, and laptop.

Each device has an icon representing its type, and all devices are connected to the cloud, symbolizing data access and storage on the cloud.

Q46. Which operation converts raw data into Information?
* Processing
* Storage
* Output
* Input

The operation that converts raw data into information is A. Processing.

Data transformation involves manipulating and reorganizing raw data to extract meaningful insights and patterns, resulting in useful information1.

References

1.Unleashing the Power of Data Transformation: How to Turn Raw Information into Actionable Insights

Q47. What is an advantage of insourcing?
* It is less expensive and faster to build.
* The IT Department’s responsibility is reduced.
* Training is minimal and does not take much commitment.
* Developers gain experience when coding themselves.

Insourcing, the practice of developing software or handling IT tasks within the organization, offers several advantages. The primary advantage in this scenario focuses on skill development:

*Knowledge growth: By working directly on projects, in-house developers gain hands-on experience, enhancing their coding skills and understanding of the company’s specific needs.

*Ownership: Insourcing provides developers with a sense of ownership over the project, often leading to increased motivation and problem-solving skills.

Q48. How are IT and globallzatlon related?
* IT allows businesses to reach global HIPAA compliance.
* IT allows businesses to have a global reach.
* IT allows businesses to create a global common gateway interface (CGI).
* IT allows businesses to create tax havens for global companies.

*Verified Answer: IT allows businesses to have a global reach.

*Explanation: Information Technology enables companies to connect and operate on an international scale, facilitating global communication, transactions, and collaboration123.

*References: 123

Therefore, the correct answer is B. IT allows businesses to have a global reach.

Q49. Which type of systems testing includes having end users test the system with simulated data and the help of the developer?
* User Acceptance
* Alpha

* Beta
* Analysis

User Acceptance Testing (UAT) is a type of systems testing that involves end users testing the system with simulated data and the assistance of the developer or testing team. Let’s break down the options:

*User Acceptance (A): UAT is the final phase of testing before the software is released to production. It ensures that the system meets the business requirements and is acceptable to end users. During UAT, actual users (not developers) validate the system’s functionality, usability, and overall performance using real-world scenarios and data.

*Alpha (B): Alpha testing is conducted by the development team within the organization. It is an early-stage testing phase where developers test the software for defects and issues. End users are not directly involved in alpha testing.

*Beta : Beta testing occurs after alpha testing. It involves releasing the software to a limited group of external users (beta testers) who provide feedback. Beta testing is not specifically focused on simulated data or end user involvement.

*Analysis (D): Analysis is not a type of systems testing. It refers to the process of examining data, identifying patterns, and drawing conclusions.

In summary, the correct answer is A. User Acceptance, which aligns with the scenario described in the question.

References:

1.ISTQB Glossary: User Acceptance Testing

Q50. What are three operating systems that are commonly used today?

Choose 3 answers
* Mac OS
* Microsoft Outlook
* MySQL
* Mozilla Firefox
* Linux
* Microsoft Windows

1.Microsoft Windows: Developed and marketed by Microsoft, Windows is the most widely used desktop operating system globally. It accounts for nearly 72% market share for desktop and laptop computers.

Windows provides an intuitive and user-friendly graphical desktop, making it easy to use and navigate. It is versatile and supports various tasks such as word processing, browsing, gaming, software development, video editing, and more1.

2.Linux: Linux is a popular open-source operating system. It was developed by programmer Linus Torvalds in

1991. Linux runs in many organizations, private offices, mobiledevices, supercomputers, and over the internet.

It already contains almost all the features of the UNIX OS and has additional features. Various distributions of Linux exist, including Ubuntu, Debian, Solus, and Linux Mint. Linux is known for its security, compatibility, and flexibility2.

3.Android: Android is one of the most common operating systems today. It powers smartphones, tablets, and other smart devices. Developed by Google, Android is based on the Linux kernel. It dominates the mobile market and offers a wide range of applications and features for users2.

Comprehensive Detailed Step by Step Explanation:

1.Microsoft Windows:

oWindows is developed and maintained by Microsoft.

oIt provides a graphical user interface (GUI) and is user-friendly.

oWindows 10 is the current version, with earlier versions like Windows XP, Windows 8, and Windows 7.

oAdvantages: Compatibility with hardware, pre-loaded software, ease of use. Disadvantages: Cost, security threats, vulnerability to viruses.

2.Linux:

oDeveloped by Linus Torvalds in 1991.

oOpen-source and free of cost.

oUsed in various environments (organizations, supercomputers, etc.).

oDistributions like Ubuntu, Debian, and Linux Mint.

oAdvantages: Security, compatibility, flexibility. Disadvantages: Multiple versions, not ideal for gamers.

3.Android:

oDeveloped by Google.

oBased on the Linux kernel.

oDominates the mobile market.

oOffers a wide range of apps and features.

References:

1.Toppr: Commonly Used Operating System

2.Tecmint: Most Used Operating Systems in the World1

Q51. Which computing term describes a collection of hardware and software components that work together to meet the needs of the user?
* A hard drive
* An operating system
* A computer system
* A motherboard

The computing term that describes a collection of hardware and software components working together to meet the needs of the user is C. A computer system.

A computer system consists of both physical hardware components (like the central processing unit, monitor, keyboard, etc.) and software components (such as operating systems, applications, and programs).

References

1.WGU Introduction to IT (KSO1) Algorithm1.

Q52. Nadia Is collecting data for a project. The goal of the project is to determine which smartphone applications customers are most likely to use. Her main source of information will be online surveys that will be collected from customers over the next six months.

Which practices would help ensure that she will collect quality data?
* Developing questions for the survey that are directly related to customers’ application preferences
* Changing some of the questions on the survey after the first 3 months
* Having customers in certain demographics fill out the survey multiple times
* Changing any data on surveys where she thinks the customer has made an error

Developing questions for the survey that are directly related to customers’ application preferences is a practice that would help ensure collecting quality data.

Nadia should focus on relevant questions related to application preferences to gather accurate data.

References

1.WGU Introduction to IT (KSO1) Algorithm1.

Q53. In which generafion of computers were vacuam tubes used as one of the hardware components?
* First
* Second
* Third
* Fourth

*Verified Answer: Vacuum tubes were used as one of the hardware components in the first generation of computers.

*Explanation: The first-generation computers, developed between 1946 and 1959, relied on vacuum tubes for their circuitry. These vacuum tube computers paved the way for electronic computing.

Q54. A local nonprofit organization that promotes healthy living in low income communities is planning an outreach program for members of the community that have type 2 diabetes. The organization plans to partner with local hospitals and health centers in order to reach patients.

Which government regulation do the healthcare providers need to consider to ensure that they do not illegally provide patient information?
* Computer Matching and Privacy Protection Act of 1988
* Health Insurance Portability and Accountability Act of 1996
* Privacy Act of 1974
* Digital Signature and Electronic Authentication law of 1998

Healthcare providers need to consider the Health Insurance Portability and Accountability Act of 1996 (HIPAA) to ensure that they do not illegally provide patient information1. HIPAA establishes national standards to protect individuals’ medical records and other individually identifiable health information, including protected health information2. It applies to health plans, health care clearinghouses, and health care providers that conduct certain health care transactions electronically2. The Privacy Rule within HIPAA sets a baseline of protection for health information and allows patients to choose whether their health information may be

disclosed for specific purposes such as treatment, payment, and health care operations3. Therefore, healthcare providers partnering with local hospitals and health centers should adhere to HIPAA guidelines to safeguard patient privacy.

Q55. Which securely best practice designates specific persons who are authorized to view and edit particular parts of a database system?
* Authentication
* Encryption
* Antiviral software
* Role-based access control

*Role-based access control (RBAC) is a securely best practice that designates specific persons who are authorized to view and edit particular parts of a database system.

*In RBAC, access permissions are assigned based on predefined roles or job functions within an organization.

*Here’s how RBAC works:

1.Roles: Define roles based on job responsibilities (e.g., administrator, manager, user).

2.Permissions: Assign specific permissions (read, write, execute) to each role.

3.Users: Associate users with roles.

4.Access Control: Users inherit permissions from their assigned roles.

*Benefits of RBAC:

oGranularity: Allows fine-grained control over access rights.

oScalability: Easily manage access for large user bases.

oSecurity: Reduces the risk of unauthorized access.

*Example: An employee in the HR department might have read-only access to employee records, while an administrator has full editing rights.

*RBAC ensures that only authorized individuals can access specific data or perform certain actions within the database system.

References:

1.Vertabelo: Top 11 Best Practices for Database Design

2.Stack Overflow: Best Practice for Designing User Roles and Permission System

3.Resmo: 9 Access Control Best Practices

4.RedSwitches: Database Security in DBMS

5.LinkedIn: How to Choose a Database System: Best Practices

1: Vertabelo: Top 11 Best Practices for Database Design 2: Stack Overflow: Best Practice for Designing User Roles and Permission

System 3: Resmo: 9 Access Control Best Practices 4: RedSwitches: Database Security in DBMS 5: LinkedIn: How to Choose a Database System: Best Practices

Q56. Which system component allows a collection of computers to communicate with each other?
* Hard drive
* Network
* Mouse
* USB connector
*The system component that allows a collection of computers to communicate with each other is the network.

*Explanation: Networks enable communication between computers, allowing data exchange, resource sharing, and collaboration.

* Therefore, the correct answer is B. Network.

Q57. Why is business continuity planning essential?
* It ensures that the company will avoid asset loss.
* It allows for succession planning.
* It allows for the quickest return to business operations.
* It ensures that the company will be profitable.
Business continuity planning (BCP) is essential for several reasons:

1.Minimizing Downtime:

oBCP ensures that an organization can continue its critical functions during and after disruptions.

oBy having a well-thought-out plan, companies can minimize downtime and quickly resume operations.

2.Risk Mitigation:

oBCP identifies potential risks (e.g., natural disasters, cyberattacks) and develops strategies to mitigate and recover from them.

oIt goes beyond traditional business plans, focusing on resilience during adversity.

3.Economic Stability:

oEconomic downturns (e.g., recessions) pose significant threats to businesses.

oA continuity plan helps companies sustain operations even during tough times, preventing financial instability.

4.Adaptability to Growth:

oDuring periods of growth, businesses need to scale rapidly.

oA continuity plan ensures that infrastructure, resources, and workforce can adapt effectively.

Q58. What are two differences between a handheld computer and a desktop?

Choose 2 answers.
* A desktop has more memory.
* A desktop has more internal storage.

* A handheld has more internal storage.
* A handheld has more memory.

1.Smaller Screens:

oVerified Answer: Handheld computers (such as smartphones and tablets) have smaller displays compared to desktop computers.

oExplanation: Handheld screens are typically around 3-5 diagonal inches for phones and up to 9-12 inches for tablets. In contrast, desktop screens range from 20-30 inches diagonally.

oReferences: 1

2.Processing Power and Customizability:

oVerified Answer: Desktop computers usually have more processing power, memory, and storage capacity than handheld devices.

oExplanation: Desktops are ideal for resource-intensive tasks like video editing, gaming, and software development. Handheld devices, while becoming more powerful, are still constrained by size and battery life considerations.

Q59. What are two roles of the Internet in the business ecosystem?

Choose 2 answers
* Connecting remote employees and offices across wide distances
* Allowing software to be purchased by one user and shared across the company
* Marketing of products and services
* Increasing information control and security

The Internet plays two important roles in the business ecosystem:

1.Marketing of products and services: The Internet provides a platform for businesses to promote their products and services globally, reaching a wider audience.

2.Connecting remote employees and offices across wide distances: Through the Internet, remote employees can collaborate, communicate, and work effectively regardless of geographical boundaries.

References

1.The Role of Internet in Business

2.The great transformer: The impact of the Internet on economic growth

Q60. What are two signs of a phishing e-mail?

Choose 2 answers
* Poor grammar and spelling errors
* An e-mail from an organization you don’t recognize
* Personalized greetings
* Frequent reminders from the same e-mail address
* A link to a website sent by a family member

1.Poor grammar and spelling errors: Phishing emails often contain mistakes in language, grammar, or spelling.

These errors can be a red flag that the email is not legitimate.

2.An email from an organization you don’t recognize: Be cautious if you receive an email from an unfamiliar organization. Verify the sender’s legitimacy before taking any action.

References:

*1Cofense: 10 Signs of a Phishing Email

*2CrowdStrike: How to Spot a Phishing Email

*3Malwarebytes: Phishing Email – How to Identify and Avoid Phishing Attacks

*4SecurityMetrics: 7 Ways to Recognize a Phishing Email

Q61. What are two functions of the IT department within an organization?

Choose 2 answers
* To advertise products or services
* To develop and maintain the company’s electronic communications network
* To set priorities and allocate staff and budget resources to important product launch projects
* To oversee enterprise financial decisions and budget items
* To support information technology needs of an organization

1.Developing and Maintaining the Company’s Electronic Communications Network:

oThe IT department is responsible for designing, implementing, and managing the organization’s electronic communications infrastructure. This includes networks, servers, email systems, and other communication channels.

oThey ensure that employees can communicate efficiently and securely, both internally and externally.

oRegular maintenance, troubleshooting, and upgrades are part of their responsibilities to keep the network operational and reliable.

2.Supporting Information Technology Needs:

oThe IT department provides technical support to employees, addressing hardware and software issues.

oThey assist with setting up new devices, troubleshooting connectivity problems, and ensuring that employees have the necessary tools to perform their tasks.

oUser training, software updates, and security awareness are also part of their support functions.

Comprehensive Detailed Step by Step Explanation

1.Developing and Maintaining the Company’s Electronic Communications Network:

oDesign and Implementation:

The IT department collaborates with network architects and engineers to design a robust and efficient communications network.

They consider factors such as scalability, security, and performance.

oNetwork Infrastructure:

The IT team sets up and configures network devices (routers, switches, firewalls) to create a reliable network infrastructure.

They ensure proper segmentation, VLANs, and access controls.

oServer Management:

IT manages servers (physical or virtual) that host applications, databases, and files.

Regular maintenance includes patching, backups, and monitoring.

oEmail Systems:

The IT department oversees email servers (e.g., Microsoft Exchange, Gmail) to enable efficient communication.

They handle user accounts, spam filtering, and security.

oSecurity Measures:

IT implements security protocols (firewalls, intrusion detection systems) to protect the network from threats.

Regular security audits and updates are essential.

2.Supporting Information Technology Needs:

oHelp Desk Support:

IT staff provide technical assistance to employees via phone, email, or in-person.

They troubleshoot hardware and software issues promptly.

oDevice Setup and Configuration:

When new employees join, IT sets up their workstations, laptops, and mobile devices.

They configure software, install necessary applications, and connect to the network.

oSoftware Updates and Patches:

IT ensures that all software (operating systems, applications) is up to date.

Regular patch management prevents vulnerabilities.

oUser Training and Security Awareness:

IT conducts training sessions to educate employees about security best practices.

They raise awareness about phishing, password hygiene, and data protection.

References

*Electric: The IT Department: Roles & Responsibilities to Know

*Atera: The Different IT Department Roles and Responsibilities

*Presentationskills.me: Departments in an Organization and Their Functions

*Indeed: What Does the IT Department Do Within a Modern Organization?

*CIOsrc: Demystifying What IT Departments Actually Do And Should Do