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## Exam A

### QUESTION 1

Which of the following BEST explains the use of float over integer to store monetary values?

- A. It accepts negative values.
- B. It stores symbols
- C. It accommodates larger values.
- D. It supports decimals.

**Correct Answer: D**

**Section:**

### QUESTION 2

An IP address is 32 bits long. If converted to bytes, it would be:

- A. 4 bytes
- B. 8 bytes
- C. 16 bytes
- D. 64 bytes

**Correct Answer: A**

**Section:**

### QUESTION 3

Which of the following BEST describes the purpose of a vector in programming?

- A. Storing a collection of data
- B. Repeating a similar operation
- C. Capturing user input
- D. Performing mathematical calculations

**Correct Answer: A**

**Section:**

### QUESTION 4

A security engineer is attempting to justify a large investment in security IT infrastructure. The business has a limited budget and is reluctant to invest. Which of the following should the business consider in the analysis?

- A. Loss of revenue in case of a breach
- B. Difficulty of integration
- C. Training involved for IT staff and users
- D. Amount of equipment that will be replaced

**Correct Answer: A**



**Section:**

**QUESTION 5**

A security administrator needs to set up multifactor authentication for a cloud application. Which of the following should the administrator use to establish an authentication process? (Choose two.)

- A. Logs
- B. Password
- C. Receipt
- D. Encryption
- E. Database
- F. Software token

**Correct Answer: B, F**

**Section:**

**QUESTION 6**

A program will request user input and perform an operation several times if the input is correct. Which of the following techniques BEST describes the fact that the operation is only performed if the input is correct?

- A. Looping
- B. Branching
- C. Reuse
- D. Modeling

**Correct Answer: A**

**Section:**

**QUESTION 7**

A company is developing an application that will be used to simplify typing on a virtual keyboard. This will MOST likely be installed on:

- A. a mobile OS.
- B. a workstation OS.
- C. a server OS.
- D. an embedded OS.

**Correct Answer: A**

**Section:**

**QUESTION 8**

Which of the following examples are MOST typical of fault tolerance practices used in business continuity planning? (Choose two.)

- A. RAID storage
- B. Uninterruptible power supplies
- C. Off-site backups
- D. Private cloud servers
- E. Virtual-hosted desktops
- F. Warm sites



**Correct Answer: B, C**

**Section:**

**QUESTION 9**

Which of the following WiFi security options would create the MOST need for a VPN connection on the client device?

- A. Open
- B. WEP
- C. WPA
- D. WPA2

**Correct Answer: A**

**Section:**

**QUESTION 10**

Which of the following BEST describes a technology that allows multiple users to create and edit reports at the same time?

- A. Text file on a shared drive
- B. Managed relational database
- C. Informational intranet page
- D. Locally installed productivity software

**Correct Answer: B**

**Section:**

**QUESTION 11**

A company has installed an application that only requires a workstation to function. Which of the following architecture types is this application using?

- A. One-tier
- B. Two-tier
- C. Three-tier
- D. n-tier

**Correct Answer: A**

**Section:**

**QUESTION 12**

A help desk technician encounters an issue and wants to find out if a colleague has encountered the same issue before. Which of the following should the technician do FIRST?

- A. Check Knowledge Base.
- B. Search local logs.
- C. Research possible theories.
- D. Question users.

**Correct Answer: A**

**Section:**



**QUESTION 13**

Which of the following BEST describes the practice of providing user credentials when logging onto the network?

- A. Output
- B. Storage
- C. Input
- D. Processing

**Correct Answer: C**

**Section:**

**QUESTION 14**

Which of the following allows wireless devices to communicate to a wired network?

- A. Modem
- B. Switch
- C. Firewall
- D. Access point

**Correct Answer: D**

**Section:**

**QUESTION 15**

Which of the following computing devices would be used to provide a centralized means to distribute services to a group of clients and usually possesses a role on a LAN?

- A. Laptop
- B. Workstation
- C. Mobile phone
- D. Server

**Correct Answer: D**

**Section:**

**QUESTION 16**

Which of the following describes something in a database that refers to the unique identifier in the parent table?

- A. Attribute
- B. Constraint
- C. Foreign key
- D. Schema

**Correct Answer: C**

**Section:**

**Explanation:**

A foreign key is a column or a set of columns in a table that refers to the unique identifier (or primary key) in another table. A foreign key establishes a relationship between two tables and ensures referential integrity. For example, in a database that stores information about students and courses, the student table may have a column called student\_id that is the primary key for each student record. The course table may have a column called student\_id that is the foreign key that refers to the student\_id in the student table. This way, the database can link each course record to the corresponding student record. Reference: = CompTIA IT Fundamentals (ITF+) Study Guide, 2nd Edition, Chapter 5: Database Fundamentals 2; What is RDBMS (Relational Database Management System) - Javatpoint 5; What is a Relational Database Management System? | Microsoft Azure 6

**QUESTION 17**

For which of the following is a relational database management system MOST commonly used?

- A. Building flowcharts
- B. Storing information
- C. Generating reports
- D. Creating diagrams

**Correct Answer: B**

**Section:**

**QUESTION 18**

Which of the following BEST describes an application running on a typical operating system?

- A. Process
- B. Thread
- C. Function
- D. Task

**Correct Answer: A**

**Section:**

**QUESTION 19**

The broadcast signal from a recently installed wireless access point is not as strong as expected. Which of the following actions would BEST improve the signal strength?

- A. Update from 802.11b to 802.11g.
- B. Ensure sources of EMI are removed.
- C. Enable WPA2-Enterprise.
- D. Use WiFi Protected Setup.

**Correct Answer: B**

**Section:**

**QUESTION 20**

A user is getting an error message when trying to go to a website. A technician asks the user a few questions to find out more about the issue. The technician opens a browser locally and browses to the same site as the user. Which of the following troubleshooting steps is the technician using by browsing to the same site?

- A. Establish a plan of action.
- B. Gather information
- C. Duplicate the problem.
- D. Find the root cause.

**Correct Answer: C**

**Section:**

**QUESTION 21**

A user is attempting to print a document to a wireless printer and receives an error stating the operation could not be completed. Which of the following should the user do to correct this issue?

- A. Ensure both devices are connected to the LAN.
- B. Enable task scheduling.
- C. Reset the proxy settings to their default values.
- D. Review the fault tolerance configurations.

**Correct Answer: A**

**Section:**

#### **QUESTION 22**

Which of the following relational database constructs is used to ensure valid values are entered for a column?

- A. Schema
- B. Permissions
- C. Constraint
- D. Column

**Correct Answer: C**

**Section:**

#### **QUESTION 23**

A user is buying a laptop. The user will have a lot of personal and confidential information on the laptop. The user wants to ensure data cannot be accessed by anyone, even if the laptop is stolen. Which of the following should be set up to accomplish this?

- A. Encryption
- B. Compression
- C. Permissions
- D. Auditing

**Correct Answer: A**

**Section:**

#### **QUESTION 24**

A systems administrator uses a program that interacts directly with hardware to manage storage, network, and virtual machines. This program is an example of:

- A. a storage area network.
- B. an embedded OS.
- C. network attached storage.
- D. a Type 1 hypervisor.

**Correct Answer: D**

**Section:**

#### **QUESTION 25**

Which of the following is a compiled language?

- A. Perl



- B. JScript
- C. Java
- D. PowerShell

**Correct Answer: C**

**Section:**

**QUESTION 26**

Which of the following actions is the FINAL step in the standard troubleshooting methodology?

- A. Document the solution and cause.
- B. Create a new theory of cause.
- C. Research the problem online.
- D. Implement preventive measures.

**Correct Answer: A**

**Section:**

**QUESTION 27**

Which of the following is a value that uniquely identifies a database record?

- A. Foreign key
- B. Public key
- C. Primary key
- D. Private key

**Correct Answer: C**

**Section:**

**QUESTION 28**

A systems administrator wants to return results for a time range within a database. Which of the following commands should the administrator use?

- A. SELECT
- B. INSERT
- C. DELETE
- D. UPDATE

**Correct Answer: A**

**Section:**

**QUESTION 29**

Which of the following statements BEST describes binary?

- A. A notational system used to represent an "on" or "off" state
- B. A notational system used to represent media access control
- C. A notational system used to represent Internet protocol addressing
- D. A notational system used to represent a storage unit of measurement





**Correct Answer: A**

**Section:**

**QUESTION 30**

Joe, a developer, is writing a program in which he needs to store a number that changes over the duration of the program's run. Which of the following would Joe MOST likely use to accomplish this?

- A. Loop
- B. Variable
- C. Constant
- D. Function

**Correct Answer: B**

**Section:**

**QUESTION 31**

An end user's computer has been failing to open its word processing software. An IT technician successfully solves the problem. Which of the following best describes the technician's NEXT step?

- A. Restart the computer.
- B. Contact other users.
- C. Disconnect the peripherals.
- D. Document the findings.

**Correct Answer: D**

**Section:**

**QUESTION 32**

A regulation requires new applicants to provide a scan of their retinas in case of any future legal questions regarding who applied for the position. Which of the following concepts is this an example of?

- A. Non-repudiation
- B. Authentication
- C. Integrity
- D. Accounting

**Correct Answer: A**

**Section:**

**Explanation:**

Non-repudiation is a security concept that refers to the ability to prove the origin and authenticity of an action or communication, such as an email or a document. Non-repudiation prevents someone from denying their involvement or responsibility for something they have done or sent. Non-repudiation can be achieved by using methods such as digital signatures, encryption, timestamps, or biometric data. For example, scanning the retinas of new applicants can provide non-repudiation in case of any future legal questions regarding who applied for the position. Reference: = CompTIA IT Fundamentals (ITF+) Study Guide, 2nd Edition, Chapter 6: Security 3; What is Non-Repudiation? - Definition from Techopedia 10

**QUESTION 33**

Which of the following is an advantage of installing an application to the cloud?

- A. Data is not stored locally.
- B. Support is not required.
- C. Service is not required.
- D. Internet access is not required.



**Correct Answer: A**

**Section:**

**QUESTION 34**

A small company wants to set up a server that is accessible from the company network as well as the Internet. Which of the following is MOST important to determine before allowing employees to access the server remotely?

- A. The quality of the computer used to connect
- B. A security method of allowing connections
- C. The employees' home ISP speeds
- D. The geographical location of the employees

**Correct Answer: B**

**Section:**

**QUESTION 35**

A program needs to choose apples, oranges, or bananas based on an input. Which of the following programming constructs is BEST to use?

- A. Variable
- B. If
- C. Datatype
- D. Comment

**Correct Answer: B**

**Section:**



**QUESTION 36**

A user wants to use a laptop outside the house and still remain connected to the Internet. Which of the following would be the BEST choice to accomplish this task?

- A. Thunderbolt cable
- B. Bluetooth module
- C. Infrared port
- D. WLAN card

**Correct Answer: D**

**Section:**

**QUESTION 37**

Joe, a user, finds out his password for a social media site has been compromised. Joe tells a friend that his email and banking accounts are probably also compromised. Which of the following has Joe MOST likely performed?

- A. Password reuse
- B. Snooping
- C. Social engineering
- D. Phishing

**Correct Answer: A**

**Section:**

**QUESTION 38**

A technician is installing a new wireless network and wants to secure the wireless network to prevent unauthorized access. Which of the following protocols would be the MOST secure?

- A. WPA
- B. SSID
- C. WEP
- D. WPA2

**Correct Answer: D**

**Section:**

**QUESTION 39**

Which of the following network protocols will MOST likely be used when sending and receiving Internet email? (Select TWO.)

- A. SMTP
- B. POP3
- C. SNMP
- D. DHCP
- E. ICMP
- F. SFTP

**Correct Answer: A, B**

**Section:**

**QUESTION 40**

A database administrator finds that a table is not needed in a relational database. Which of the following commands is used to completely remove the table and its data?

- A. UPDATE
- B. DELETE
- C. ALTER
- D. DROP

**Correct Answer: D**

**Section:**

**QUESTION 41**

A technician is called to replace a display for a workstation. Which of the following would MOST likely be used to connect the display to the workstation?

- A. USB
- B. NFC
- C. DSL
- D. DVI

**Correct Answer: D**

**Section:**

**QUESTION 42**

Ann, the president of a company, has requested assistance with choosing the appropriate Internet connectivity for her home. The home is in a remote location and has no connectivity to existing infrastructure. Which of the following Internet service types should MOST likely be used?

- A. Fiber
- B. DSL
- C. Cable
- D. Satellite

**Correct Answer: D**  
**Section:**

**QUESTION 43**

Which of the following is MOST likely used to represent international text data?

- A. ASCII
- B. Octal
- C. Hexadecimal
- D. Unicode

**Correct Answer: D**  
**Section:**

**QUESTION 44**

For a disaster recovery exercise, a company wants to ensure customer data is recovered before operational data. This is an example of:

- A. redundancy.
- B. replication.
- C. prioritization.
- D. fault tolerance.

**Correct Answer: C**  
**Section:**

**QUESTION 45**

Which of the following operating systems do not require extensions on files to execute a program? (Select TWO).

- A. Windows 7
- B. Windows 8
- C. UNIX
- D. Windows Server 2012
- E. Android
- F. Linux

**Correct Answer: C, F**  
**Section:**

**QUESTION 46**

A technician needs to install a wireless router for a client that supports speeds up to 11Mbps and operates on the 2.4GHz band. Which of the following should the technician select?

- A. 802.11a
- B. 802.11b
- C. 802.11g
- D. 802.11n

**Correct Answer: B**

**Section:**

**QUESTION 47**

Which of the following is an example of multifactor authentication?

- A. Password and passphrase
- B. Fingerprint and retina scan
- C. Hardware token and smartphone
- D. Smart card and PIN

**Correct Answer: D**

**Section:**

**QUESTION 48**

Which of the following language types would a web developer MOST likely use to create a website?

- A. Interpreted
- B. Query
- C. Compiled
- D. Assembly

**Correct Answer: A**

**Section:**

**QUESTION 49**

A developer is creating specific step-by-step instructions/procedures and conditional statements that will be used by a computer program to solve problems. Which of the following is being developed?

- A. Algorithm
- B. Software
- C. Pseudocode
- D. Flowchart

**Correct Answer: A**

**Section:**

**QUESTION 50**

A startup company has created a logo. The company wants to ensure no other entity can use the logo for any purpose. Which of the following should the company use to BEST protect the logo? (Select TWO).

- A. Patent



- B. Copyright
- C. NDA
- D. Trademark
- E. EULA

**Correct Answer: B, D**

**Section:**

**QUESTION 51**

Which of the following would be BEST to keep the data on a laptop safe if the laptop is lost or stolen?

- A. Host-based firewall
- B. Strong administrator password
- C. Anti-malware software
- D. Full disk encryption

**Correct Answer: D**

**Section:**

**QUESTION 52**

In which of the following situations should there be some expectation of privacy?

- A. Posting a comment on a friend's social media page
- B. Submitting personal information on a school enrollment site
- C. Posting a comment on a video sharing site
- D. Sending email and pictures to a close relative

**Correct Answer: B**

**Section:**

**QUESTION 53**

Which of the following data types should a developer use when creating a variable to hold a postal code?

- A. Integer
- B. String
- C. Float
- D. Boolean

**Correct Answer: B**

**Section:**

**QUESTION 54**

Which of the following is the closest to machine language?

- A. Scripted languages
- B. Compiled languages
- C. Query languages



D. Assembly languages

**Correct Answer: D**

**Section:**

**QUESTION 55**

A function is BEST used for enabling programs to:

- A. hold a list of numbers.
- B. be divided into reusable components.
- C. define needed constant values.
- D. define variables to hold different values.

**Correct Answer: D**

**Section:**

**QUESTION 56**

When transferring a file across the network, which of the following would be the FASTEST transfer rate?

- A. 1001Kbps
- B. 110Mbps
- C. 1.22Gbps
- D. 123Mbps

**Correct Answer: C**

**Section:**

**QUESTION 57**

A technician has been asked to assign an IP address to a new desktop computer. Which of the following is a valid IP address the technician should assign?

- A. 127.0.0.1
- B. 172.16.2.189
- C. 192.168.257.1
- D. 255.255.255.0

**Correct Answer: B**

**Section:**

**QUESTION 58**

A game developer is purchasing a computing device to develop a game and recognizes the game engine software will require a device with high-end specifications that can be upgraded. Which of the following devices would be BEST for the developer to buy?

- A. Laptop
- B. Server
- C. Game console
- D. Workstation



**Correct Answer: B**

**Section:**

**QUESTION 59**

A company requires several reports that analyze related information from sales, inventory, marketing, and compensation data. Which of the following is the BEST place to store this data?

- A. Flat file
- B. Word processor
- C. Database
- D. Network share

**Correct Answer: C**

**Section:**

**QUESTION 60**

A computer user is downloading software from the Internet and notices the following at the end of the install file: "...x86.exe". Which of the following statements BEST represents what the "...x86.exe" means in the installation file?

- A. x86 only supports an installation on a 32-bit CPU architecture.
- B. x86 supports an installation on a 32-bit and a 64-bit CPU architecture.
- C. x86 only supports an installation on a 64-bit CPU architecture.
- D. x86 supports an installation on a 16-bit CPU architecture.

**Correct Answer: A**

**Section:**

**QUESTION 61**

Which of the following would be used to send messages using the SMTP protocol?

- A. Document sharing software
- B. Instant messaging software
- C. Conferencing software
- D. Email software

**Correct Answer: D**

**Section:**

**QUESTION 62**

Malware infections are being caused by websites. Which of the following settings will help prevent infections caused by Internet browsing?

- A. Turn on private browsing
- B. Delete browsing history on program close.
- C. Notify when downloads are complete.
- D. Configure prompting before downloading content.

**Correct Answer: D**

**Section:**





**QUESTION 63**

Which of the following is an example of information a company would ask employees to handle in a sensitive manner?

- A. Customer date of birth
- B. The first and last name of the Chief Executive Officer (CEO)
- C. Customer service number
- D. Company social media screen name

**Correct Answer: A**

**Section:**

**QUESTION 64**

The sales department needs to keep a customer list that contains names, contact information, and sales records. This list will need to be edited by multiple people at the same time. Which of the following applications should be used to create this list?

- A. Database software
- B. Word processing software
- C. Conferencing software
- D. Presentation software

**Correct Answer: A**

**Section:**

**QUESTION 65**

Ann, a user, connects to the corporate WiFi and tries to browse the Internet. Ann finds that she can only get to local (intranet) pages. Which of the following actions would MOST likely fix the problem?

- A. Renew the IP address.
- B. Configure the browser proxy settings.
- C. Clear the browser cache.
- D. Disable the pop-up blocker

**Correct Answer: A**

**Section:**

**Explanation:**

Renewing the IP address would most likely fix the problem of not being able to access the Internet after connecting to the corporate WiFi. An IP address is a unique identifier that is assigned to a device on a network that uses the Internet Protocol (IP). An IP address consists of four numbers separated by dots, each ranging from 0 to 255. For example, 192.168.1.1 is an IP address. An IP address can be assigned statically (manually) or dynamically (automatically) by a DHCP (Dynamic Host Configuration Protocol) server on the network. Sometimes, an IP address may become invalid or conflict with another device on the network, which may prevent the device from accessing the Internet or other network resources. Renewing the IP address is a process of releasing the current IP address and requesting a new IP address from the DHCP server. Renewing the IP address can help resolve any IP address issues and restore network connectivity. Reference: The Official CompTIA IT Fundamentals (ITF+) Study Guide (FC0-U61), page 165-166.

**QUESTION 66**

Which of the following would be considered the BEST method of securely distributing medical records?

- A. Encrypted flash drive
- B. Social networking sites
- C. Fax
- D. FTP file sharing

**Correct Answer: A**

**Section:**

**QUESTION 67**

Which of the following should have the HIGHEST expectation of privacy?

- A. A picture posted to a social media website
- B. A presentation saved to a corporate file server
- C. A locally stored word processing document
- D. A spreadsheet emailed to a business client

**Correct Answer: C**

**Section:**

**QUESTION 68**

Which of the following storage devices have a spinning disk? (Choose two.)

- A. Optical drive
- B. SSD
- C. HDD
- D. Flash drive
- E. RAM
- F. ROM

**Correct Answer: A, C**

**Section:**

**QUESTION 69**

Which of the following computer components allows for communication over a computer network?

- A. RAM
- B. NIC
- C. CPU
- D. NAS

**Correct Answer: B**

**Section:**

**QUESTION 70**

A company desires to implement a six-month survey site within a remote location. Which of the following is the BEST option for Internet service?

- A. Cellular
- B. Satellite
- C. Cable
- D. Fiber

**Correct Answer: A**



**Section:**

**Explanation:**

Cellular would be the best option for Internet service for a six-month survey site in a remotelocation among the given options. Cellular Internet service uses cellular networks to providewireless Internet access to devices that have a cellular modem, such as smartphones, tablets,laptops, etc. Cellular Internet service can cover areas where other types of Internet service arenot available or reliable, such as rural or remote locations. Cellular Internet service can offerhigh-speed broadband connections using technologies such as 3G, 4G, LTE, etc., but it may alsohave drawbacks such as limited coverage, signal interference, data caps, or highcosts.Reference: The Official CompTIA IT Fundamentals (ITF+) Study Guide (FC0-U61), page 168.

**QUESTION 71**

Which of the following authorization techniques is used to assign permissions and authorize a user based on job title or function?

- A. Rule-based access control
- B. Mandatory access control
- C. Role-based access control
- D. Discretionary access control

**Correct Answer: C**

**Section:**

**QUESTION 72**

A user has purchased a high-end graphics card that contains a GPU. Which of the following processes is being performed by the GPU on the graphics card?

- A. Input
- B. Output
- C. Storage
- D. Processing

**Correct Answer: D**

**Section:**

**QUESTION 73**

A company purchased a software program. The EULA states that the software can be installed on as many computers as the company wants, but only four users can be using the software at any point in time. Which of the following types of license is this an example of?

- A. Group license
- B. Concurrent license
- C. Subscription license
- D. Open-source license

**Correct Answer: B**

**Section:**

**QUESTION 74**

A user at a company visits a weather website often during the day. The user browses to the site in the afternoon and notices that the temperature listed is from the morning and is not the current temperature. The user closes the page and tries again with the same result. Which of the following is the MOST likely cause?

- A. Proxy server
- B. Browser add-on
- C. Corrupted cache



D. Script blocker

**Correct Answer: C**

**Section:**

**Explanation:**

A corrupted cache is the most likely cause of the problem of seeing outdated information on a website. A cache is a temporary storage area that stores copies of frequently accessed data, such as web pages, images, or files. A cache can improve the performance and speed of data retrieval by reducing the need to access the original source. However, sometimes a cache may become corrupted or outdated, which may cause errors or inconsistencies in displaying the data. A corrupted cache may show old or incorrect information on a website instead of the current or updated information. To fix this problem, the user can clear the browser cache and reload the website. Reference: The Official CompTIA IT Fundamentals (ITF+) Study Guide (FC0-U61), page 202.

**QUESTION 75**

Which of the following application delivery mechanisms BEST describes infrastructure located in an individual organization's datacenter?

- A. Private
- B. Traditional
- C. Public
- D. Cloud

**Correct Answer: B**

**Section:**

**Explanation:**

Traditional is the application delivery mechanism that best describes infrastructure located in an individual organization's datacenter. Traditional application delivery is a method of deploying and running software applications on physical servers or hardware that are owned and managed by the organization itself. Traditional application delivery requires the organization to purchase, install, configure, maintain, and secure the infrastructure and resources needed to support the applications. Traditional application delivery offers more control and customization over the applications, but it also involves more cost and complexity. Reference: The Official CompTIA IT Fundamentals (ITF+) Study Guide (FC0-U61), page 144

**QUESTION 76**

A database administrator wants to populate a database with large amounts of data from an external source. Which of the following actions should be used to get the database populated?

- A. EXPORT
- B. IMPORT
- C. SELECT
- D. ALTER

**Correct Answer: B**

**Section:**

**QUESTION 77**

Which of the following concerns does installing cross-platform software address?

- A. Subscription
- B. Licensing
- C. Product key
- D. Compatibility

**Correct Answer: D**

**Section:**

**QUESTION 78**

Which of the following requires the MOST frequent updating to remain effective?

- A. Antivirus
- B. Host firewall
- C. Web browser
- D. Device drivers

**Correct Answer: A**  
**Section:**

**QUESTION 79**

A global variable called "age" will be created in a program and incremented through the use of a function. Which of the following data types should be defined with the age variable?

- A. Integer
- B. Float
- C. Double
- D. String

**Correct Answer: A**  
**Section:**

**QUESTION 80**

Meaningful and accurate reporting is essential to retailers in making business decisions while managing inventory. Which of the following offers the BEST assistance in generating reports?

- A. Data capture and collections
- B. Asset inventory inputs
- C. Sales statistics
- D. Average loss output

**Correct Answer: A**  
**Section:**

**QUESTION 81**

A business would like to create an employee portal that employees will have access to when they are at work. The employees will not be able to connect to the portal from home without a VPN connection. Which of the following types of application does this describe?

- A. Local application
- B. Intranet application
- C. Extranet application
- D. Internet application

**Correct Answer: B**  
**Section:**

**QUESTION 82**

A computer technician is assigned a ticket to install a laptop for a new employee. Due to the arrangement of the workspace, the employee requests that the laptop be installed with the cover closed. Which of the following would be required to satisfy this request? (Choose two.)



- A. Printer
- B. Mouse
- C. Webcam
- D. External hard drive
- E. Speakers
- F. Display

**Correct Answer: B, F**

**Section:**

#### QUESTION 83

A company wants its employee to use an email client that downloads and removes messages from the email server. Which of the following protocols must be configured in the email client to facilitate this?

- A. POP3
- B. IMAP
- C. ICMP
- D. SMTP

**Correct Answer: A**

**Section:**

#### QUESTION 84

Consider the following statements:

```
if userin = "commander"
  then clearance = "topsecret"
else if userin = "analyst"
  then clearance = "restricted"
else
  clearance = "normal"

if userin = "commander"
  then clearance = "topsecret"
else if userin = "analyst"
  then clearance = "restricted"
else
  clearance = "normal"
```



Given the input (userin) of "analyst", to which of the following would the clearance variable be set?

- A. topsecret
- B. normal
- C. analyst
- D. restricted

**Correct Answer: D**

**Section:**

#### QUESTION 85

Which of the following is a reason why complex passwords are required?

- A. To encourage password variety
- B. To prevent someone from guessing them
- C. To make them harder to remember
- D. To reduce social engineering attacks

**Correct Answer: B**

**Section:**

**QUESTION 86**

A technician is troubleshooting an error message and tests the same program on a separate, identical machine. Which of the following troubleshooting methodology steps is this an example of?

- A. Duplicate the problem
- B. Gather information
- C. Question users
- D. Divide and conquer

**Correct Answer: A**

**Section:**

**QUESTION 87**

Which of the following are the primary functions of an operating system? (Choose two.)

- A. Provide structure for file and data management.
- B. Provide protection against malware and viruses.
- C. Provide peer-to-peer networking capability.
- D. Provide user data encryption.
- E. Provide virtual desktop capability.
- F. Provide system resources.

**Correct Answer: A, F**

**Section:**

**QUESTION 88**

SQL databases use primary and foreign keys to enable which of the following?

- A. Rows
- B. Fields
- C. Schemas
- D. Relationships

**Correct Answer: D**

**Section:**

**QUESTION 89**

Which of the following is a logical structure for storing files?

- A. Folder
- B. Extension
- C. Permissions
- D. Shortcut

**Correct Answer: A**

**Section:**



**QUESTION 90**

Which of the following is both an input and output device?

- A. Microphone
- B. Speaker
- C. Touch-screen monitor
- D. Keyboard

**Correct Answer: A**

**Section:**

**QUESTION 91**

A technician has successfully verified full system functionality after implementing the solution to a problem. Which of the following is the NEXT troubleshooting step the technician should do?

- A. Determine if anything has changed.
- B. Document lessons learned.
- C. Establish a theory of probable cause.
- D. Duplicate the problem, if possible.

**Correct Answer: B**

**Section:**

**QUESTION 92**

A large payment website was breached recently. A user is concerned that the breach will affect account security on other sites. Which of the following password best practices would mitigate this risk?

- A. Password history
- B. Password reuse
- C. Password expiration
- D. Password age

**Correct Answer: B**

**Section:**

**Explanation:**

Password reuse is the practice of using the same password for multiple accounts or services. Password reuse would increase the risk of account security on other sites if a large payment website was breached recently. If the attackers obtained the user's password from the breached website, they could try to use it to access the user's accounts on other sites. Password reuse should be avoided and different passwords should be used for different accounts or services. Password history, password expiration, and password age are not password best practices that would mitigate this risk. Password history is the record of previous passwords that a user has used for an account or service. Password expiration is the time limit for using a password before it needs to be changed. Password age is the length of time that a password has been in use. Reference: CompTIA IT Fundamentals+ Study Guide: Exam FC0-U61, Second Edition, Chapter 8: Security Concepts, page 308.

**QUESTION 93**

A company is concerned with ensuring its databases are highly available. Which of the following can be used to increase database availability?

- A. Backups
- B. Prioritization
- C. Indexes
- D. Failover

**Correct Answer: D**

**Section:**



**QUESTION 94**

A user revisits a website and receives a message that the site may not be secure. The user is prompted to click a link to continue to the site. Which of the following would MOST likely identify the issue?

- A. Checking the proxy settings
- B. Checking that caching is enabled
- C. Checking browser add-ons
- D. Checking certificate validity

**Correct Answer: D**

**Section:**

**QUESTION 95**

A user wants to ensure port 3389 is open for remote desktop on a PC. Which of the following describes where the user should verify the port is open?

- A. Antivirus
- B. Anti-malware
- C. Device Manager
- D. Host firewall

**Correct Answer: D**

**Section:**

**QUESTION 96**

Which of the following contains exactly four copper wires?

- A. RJ45
- B. VGA
- C. RJ11
- D. USB

**Correct Answer: C**

**Section:**

**QUESTION 97**

A technician replaces the video card in a user's PC. The user reports the resolution on the display seems very low, but the operating system will not let the user adjust it any higher. Which of the following steps would MOST likely fix this problem?

- A. Replace the user's display.
- B. Update the PC's operating system.
- C. Replace the video cable.
- D. Install new video drivers.

**Correct Answer: D**

**Section:**

**QUESTION 98**

All users have access to an application at a company. The data from the application is stored on a centralized device located on the network. Which of the following devices would MOST likely be used to store the data?



- A. Server
- B. Tape library
- C. External HDD
- D. Workstation

**Correct Answer: A**  
**Section:**

**QUESTION 99**

Which of the following types of network security deals with deviations from the historic connection patterns and analysis of new threats to provide effective mitigation responses?

- A. Behavior security
- B. Information Identity Management
- C. Unauthorized hacking
- D. Authorized hacking

**Correct Answer: A**  
**Section:**

**QUESTION 100**

A web developer wants to ensure that a new web application is not vulnerable to brute-force attacks. Which of the following best practices is MOST useful to meet this goal?

- A. Input validation
- B. System updates
- C. Password lockout
- D. Login auditing

**Correct Answer: C**  
**Section:**

**QUESTION 101**

Which of the following is the number of bytes that is in 2KB?

- A. 1024
- B. 2048
- C. 20000
- D. 1048576

**Correct Answer: B**  
**Section:**

**QUESTION 102**

A WPA2 enterprise wireless network has been subject to several attacks within the last month. Which of the following would be the BEST option to improve the security of the network?

- A. Change the SSID.
- B. Change the default password.



- C. Change to WEP security.
- D. Create a guest network.

**Correct Answer: D**

**Section:**

**QUESTION 103**

Which of the following is the BEST overall storage option for a laptop?

- A. Flash drive
- B. Hard drive
- C. SD card
- D. Solid-state drive

**Correct Answer: D**

**Section:**

**QUESTION 104**

A technician has worked through all steps of the troubleshooting methodology and has not been able to resolve the issue Which of the following should the technician do NEXT?

- A. Escalate as necessary.
- B. Confirm the root cause.
- C. Establish a new theory.
- D. Gather information.

**Correct Answer: A**

**Section:**

**QUESTION 105**

A network has been infected with a worm. Which of the following would be the BEST security measures to take? (Choose two.)

- A. Update the IPS signatures.
- B. Update the network firewall.
- C. Update the malware definitions.
- D. Quarantine the network.
- E. Reset the network router.
- F. Contact the ISP.

**Correct Answer: C, D**

**Section:**

**QUESTION 106**

The marketing department contacts the web development team and states that they are receiving inconsistent values in a newly launched form. Which of the following is MOST likely the problem?

- A. Private browsing is being used by some clients visiting the site.
- B. Client-side scripting has been deactivated on some clients visiting the site.
- C. Legacy browsers that do not support scripting are being used by some clients.



D. Server-side scripting has been deactivated by the server administrator.

**Correct Answer: B**

**Section:**

**QUESTION 107**

Which of the following is MOST likely to be considered protected personal information?

- A. Property tax records
- B. Court records
- C. Medical records
- D. Genealogy records

**Correct Answer: C**

**Section:**

**QUESTION 108**

A systems administrator downloads an update for a critical system. Before installing the update, the administrator runs a hash of the download and ensures the results match the published hash for the file. This is an example of:

- A. confidentiality concerns.
- B. accounting concerns.
- C. integrity concerns.
- D. availability concerns.

**Correct Answer: C**

**Section:**

**QUESTION 109**

A database administrator created the outline for a database that describes its components and how they work. Which of the following did the database administrator create?

- A. Record
- B. Constraint
- C. Field
- D. Schema

**Correct Answer: D**

**Section:**

**QUESTION 110**

A programmer is creating a program that makes a decision based on user input and has decided to use a branching statement. Which of the following commands would be BEST for the programmer to use?

- A. IF THEN
- B. WHILE
- C. FOR
- D. BEGIN



**Correct Answer: A**

**Section:**

**QUESTION 111**

Which of the following has the longest range?

- A. NFC
- B. Bluetooth
- C. WiFi
- D. Infrared

**Correct Answer: C**

**Section:**

**QUESTION 112**

Which of the following programming constructs would be used to repeat a statement 100 times in a loop?

- A. IF
- B. ELSE
- C. RETURN
- D. WHILE

**Correct Answer: D**

**Section:**

**QUESTION 113**

A technician is installing a plug-and-play USB mouse. Which of the following must the technician do to complete the installation?

- A. Manually install the driver software.
- B. Connect the mouse.
- C. Configure the USB port.
- D. Download the driver software.

**Correct Answer: B**

**Section:**

**QUESTION 114**

Which of the following is the WEAKEST link in the security posture of an organization?

- A. Technology
- B. Infrastructure
- C. People
- D. Regulations

**Correct Answer: C**

**Section:**



**QUESTION 115**

A developer is in the process of creating a program and has started to draft the logic of the code. This process is an example of:

- A. drawing a value stream map.
- B. developing pseudocode.
- C. identifying functions.
- D. compiling the language.

**Correct Answer: B**

**Section:**

**QUESTION 116**

A security administrator is adding accounting features to a web application. Which of the following would be the BEST action?

- A. Enhance the granularity of user permissions.
- B. Enable an audit log.
- C. Implement smart card login.
- D. Adopt a procedure for adding accounts.

**Correct Answer: B**

**Section:**

**QUESTION 117**

A systems administrator wants to run a script but does not have access to the graphical user interface. Which of the following can be used to run scripts?

- A. Text editor
- B. Word processor
- C. Command line
- D. Spreadsheet

**Correct Answer: C**

**Section:**

**QUESTION 118**

Which of the following internet service types is most susceptible to weather disruptions?

- A. Cable
- B. Satellite
- C. DSL
- D. Fiber

**Correct Answer: B**

**Section:**

**Explanation:**

Satellite internet service is a type of internet service that uses satellites orbiting the earth to transmit and receive data signals from users' devices. Satellite internet service can provide internet access to remote or rural areas where other types of internet service are not available or reliable. However, satellite internet service is also more susceptible to weather disruptions than other types of internet service, such as cable, DSL (digital subscriber line), or fiber. Weather conditions such as rain, snow, clouds, wind, or storms can interfere with the signal quality and strength between the satellite and the user's device, causing slow speeds, latency (delay), packet loss

(data loss), or connection drops.

Therefore, satellite internet service users may experience poor or inconsistent internet performance during bad weather

#### QUESTION 119

When following the troubleshooting methodology, which of the following should be performed last?

- A. Document findings.
- B. Establish a plan.
- C. Determine the cause.
- D. Verify functionality.

**Correct Answer: A**

**Section:**

**Explanation:**

The troubleshooting methodology is a systematic process of identifying and resolving problems with computers or other devices. The troubleshooting methodology consists of six steps: identify the problem, establish a theory of probable cause, test the theory to determine cause, establish a plan of action to resolve the problem and implement the solution, verify full system functionality and if applicable implement preventive measures, document findings/actions/outcomes. The last step of the troubleshooting methodology is to document findings/actions/outcomes. This step involves recording what was done to solve the problem, what was learned from the process, what preventive measures were taken (if any), and any feedback from the customer or user. Documenting findings/actions/outcomes is important for several reasons: it helps keep track of what was done and why; it helps avoid repeating the same steps or mistakes in the future; it helps share knowledge and best practices with others; it helps improve customer satisfaction and trust; it helps comply with organizational policies or regulations

#### QUESTION 120

An application is hosted on a local network. Which of the following descriptions is correct?

- A. LAN access is required.
- B. The application exists locally.
- C. Files are saved in the cloud.
- D. Internet access is required.



**Correct Answer: A**

**Section:**

**Explanation:**

LAN access is required for an application that is hosted on a local network. A local network, also known as a local area network (LAN), is a group of devices that are connected within a limited geographic area, such as a home, an office, or a school. A LAN allows the devices to communicate and share resources, such as files, printers, or applications. An application that is hosted on a local network means that the application is installed and running on one or more devices within the LAN, and can be accessed by other devices within the same LAN. However, to access the application, the device must be connected to the LAN, either by a wired or wireless connection. The application does not exist locally on the device that accesses it, unless it is also installed on that device. The application does not save files in the cloud, unless it has a feature that allows it to sync with a cloud service. The application does not require internet access, unless it needs to communicate with external servers or services outside the LAN. References: CompTIA IT Fundamentals (ITF+) Study Guide: Exam FC0-U61, Second Edition, Chapter 3: Infrastructure, pages 83-84

#### QUESTION 121

Which of the following database structures is the most granular?

- A. Column
- B. Field
- C. Record
- D. Table

**Correct Answer: B**

**Section:**

**Explanation:**

A field is the most granular database structure among the options given. A field is a single unit of data that represents an attribute of an entity, such as name, age, or address. A field can have a specific data type, such as text, number, or date. A column is a collection of fields that share the same data type and name, such as the name column in a table. A record is a collection of fields that represent an instance of an entity, such as a person, a product, or an order. A record can be identified by a primary key, which is a unique value for each record. A table is a collection of records that represent the same type of entity, such as the customer table or the product table. References: CompTIA IT Fundamentals (ITF+) Study Guide: Exam FC0-U61, Second Edition, Chapter 5: Database Fundamentals and Security Concepts, page 156

**QUESTION 122**

Which of the following is an example of a compiled language?

- A. C++
- B. SQL
- C. Python
- D. XML

**Correct Answer: A**

**Section:**

**Explanation:**

C++ is an example of a compiled language. A compiled language is a programming language that requires a compiler to translate the source code into executable code before running the program. A compiler is a program that converts the entire source code into machine code or intermediate code that can be executed by the processor or another program. A compiled language usually offers faster performance and lower memory usage than an interpreted language, but it also requires more time and effort to compile and debug the code. SQL is not a programming language, but a query language that is used to interact with databases. SQL statements are usually executed by a database management system (DBMS) that interprets and processes them. Python is an example of an interpreted language. An interpreted language is a programming language that does not require compilation before running the program. An interpreter is a program that reads and executes the source code line by line at runtime. An interpreted language usually offers more flexibility and portability than a compiled language, but it also requires more memory and CPU resources to run the program. XML is not a programming language either, but a markup language that is used to define and structure data in a human-readable and machine-readable format. XML documents are usually parsed by another program that uses them for data exchange or presentation. References: CompTIA IT Fundamentals (ITF+) Study Guide: Exam FC0-U61, Second Edition, Chapter 4: Software Development Concepts, pages 134-135

**QUESTION 123**

A user needs an interface that supports both video and data. Which of the following will meet this requirement?

- A. Thunderbolt
- B. VGA
- C. DVI
- D. FireWire

**Correct Answer: A**

**Section:**

**Explanation:**

Thunderbolt is an interface that supports both video and data. Thunderbolt is a high-speed serial interface that can connect multiple devices to a computer using one cable. Thunderbolt can support both DisplayPort and PCI Express protocols, which means it can transfer both video and data signals simultaneously. Thunderbolt can also provide power to connected devices and support daisy chaining up to six devices per port. Thunderbolt offers faster data transfer rates than USB or FireWire interfaces. VGA is an interface that supports only video. VGA stands for Video Graphics Array, which is an analog interface that can connect monitors to computers using 15-pin connectors. VGA can only carry video signals and does not support audio or data transfer. VGA also has lower resolution and quality than digital interfaces such as HDMI or DVI. DVI is an interface that supports only video as well. DVI stands for Digital Visual Interface, which is a digital interface that can connect monitors to computers using 24-pin connectors. DVI can carry either analog or digital video signals depending on the type of connector used (DVI-A for analog, DVI-D for digital, or DVI-I for both). DVI does not support audio or data transfer either. FireWire is an interface that supports only data.

**QUESTION 124**

A technician is having trouble connecting multiple users' laptops to the internet wirelessly. The users are on the west side of the building, which is hardwired. Which of the following should the technician do to resolve this issue quickly?



- A. Add a switch and hardwire the users' laptops.
- B. Add a network router.
- C. Replace the users' laptops with desktop computers.
- D. Add an access point for the users.

**Correct Answer: D**

**Section:**

**Explanation:**

The best solution for the technician to resolve the issue quickly is to add an access point for the users. An access point is a device that provides wireless connectivity to the network. An access point can be connected to a wired network and extend its coverage to wireless devices, such as laptops, smartphones, or tablets. By adding an access point on the west side of the building, the technician can enable the users' laptops to connect to the internet wirelessly without changing their hardware or software settings. Adding a switch and hardwiring the users' laptops is not a quick solution, as it would require installing cables and configuring the network settings on each laptop. Adding a network router is not necessary, as a router is a device that connects multiple networks and routes traffic between them. A router does not provide wireless connectivity by itself, unless it has a built-in access point. Replacing the users' laptops with desktop computers is not a feasible solution, as it would incur high costs and inconvenience for the users. References: CompTIA IT Fundamentals (ITF+) Study Guide: Exam FC0-U61, Second Edition, Chapter 3: Infrastructure, pages 90-91

#### QUESTION 125

Which of the following programming concepts uses properties and attributes?

- A. Objects
- B. Functions
- C. Containers
- D. Identifiers

**Correct Answer: A**

**Section:**

**Explanation:**

Objects are a programming concept that represent entities or concepts in the real world. Objects have properties and attributes that describe their characteristics and behavior. For example, a car object may have properties such as color, model, speed, and fuel, and attributes such as engine, wheels, doors, and seats. Objects can also have methods, which are actions that the object can perform or that can be performed on the object. For example, a car object may have methods such as start, stop, accelerate, and brake. Objects are used to organize data and functionality in a modular and reusable way.

#### QUESTION 126

Which of the following would be best to use to store a project task list that will be updated by multiple team members?

- A. Visual diagramming software
- B. Document sharing software
- C. Conferencing software
- D. Database software

**Correct Answer: B**

**Section:**

**Explanation:**

Document sharing software is a type of software that allows multiple users to access, edit, and collaborate on the same document over the internet. Document sharing software can be useful for storing a project task list that will be updated by multiple team members, as it can provide features such as version control, real-time editing, commenting, chat, and access control. Document sharing software can also sync the document across different devices and platforms, making it easy to access and update the task list from anywhere. Some examples of document sharing software are Google Docs, Microsoft OneDrive, Dropbox Paper, and Zoho Docs

#### QUESTION 127

A user is trying to set up a new wireless access point. Which of the following should the user do first?



- A. Change the SSID to a unique name.
- B. Change the default password.
- C. Enable WPA2 encryption.
- D. Enable the highest available wireless standard.

**Correct Answer: B**

**Section:**

**Explanation:**

A wireless access point (WAP) is a device that allows wireless devices to connect to a wired network using Wi-Fi or Bluetooth. A WAP usually has a default configuration that is set by the manufacturer, which may include a default password, SSID (service set identifier), encryption type, and wireless standard. The default password is often weak or well-known, which makes the WAP vulnerable to unauthorized access or hacking. Therefore, the first thing that a user should do when setting up a new WAP is to change the default password to a strong and unique one. This will help secure the WAP and prevent unwanted changes or attacks. Changing the SSID to a unique name, enabling WPA2 encryption, and enabling the highest available wireless standard are also important steps to improve the security and performance of the WAP, but they should be done after changing the default password.

#### QUESTION 128

Which of the following connection types is typically used for a display monitor?

- A. USB
- B. DVI
- C. Bluetooth
- D. RJ45

**Correct Answer: B**

**Section:**

**Explanation:**

The connection type that is typically used for a display monitor is DVI. DVI stands for Digital Visual Interface, which is a standard that defines how digital video signals are transmitted from a source device, such as a computer or a DVD player, to a display device, such as a monitor or a projector. DVI can support various resolutions and refresh rates, depending on the type and length of the cable and the capabilities of the devices. DVI can also support analog video signals, using a DVI-A connector, or both digital and analog video signals, using a DVI-I connector. However, DVI does not support audio signals, so a separate audio cable is needed. USB is not the connection type that is typically used for a display monitor, but rather a connection type that is typically used for peripheral devices, such as keyboards, mice, printers, scanners, etc. USB stands for Universal Serial Bus, which is a standard that defines how data and power are transmitted between devices using a common interface. USB can support various types and speeds of devices, depending on the version and mode of the USB port and cable. USB can also support video and audio signals, using a USB-C connector, which can be converted to other standards, such as HDMI or DisplayPort. Bluetooth is not the connection type that is typically used for a display monitor, but rather a connection type that is typically used for wireless devices, such as headphones, speakers, keyboards, mice, etc. Bluetooth is a technology that defines how data and audio are transmitted between devices using short-range radio waves. Bluetooth can support various profiles and protocols that enable different types of communication and functionality between devices. Bluetooth can also support video signals, using a Bluetooth Low Energy Video Streaming (BLE-VS) protocol, but it is not widely adopted or supported by most devices. RJ45 is not the connection type that is typically used for a display monitor, but rather a connection type that is typically used for network devices, such as routers, switches, computers, etc. RJ45 stands for Registered Jack 45, which is a connector that defines how data are transmitted between devices using twisted pair cables. RJ45 can support various standards and speeds of network communication, depending on the category and length of the cable and the capabilities of the devices. RJ45 can also support video signals, using an Ethernet AVB (Audio Video Bridging) protocol, but it is not widely adopted or supported by most devices. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 1: IT Fundamentals

#### QUESTION 129

Which of the following best describes when to use an array?

- A. The user needs to store multiple values in one object.
- B. The user needs the object to store one value and to be changeable.
- C. The user needs one object to store numbers only.
- D. The user needs the object to store one value permanently.

**Correct Answer: A**



**Section:****Explanation:**

The best description of when to use an array is when the user needs to store multiple values in one object. An array is a data structure that can store multiple values of the same data type in an ordered sequence. An array can be accessed or modified by using an index or a position number that indicates the location of each value in the array. An array can be useful when the user needs to store multiple values in one object that can be easily manipulated or iterated over by using loops or functions. The user does not need the object to store one value and to be changeable when using an array, but rather when using a variable. A variable is a data structure that can store one value of any data type in memory. A variable can be accessed or modified by using an identifier or a name that represents the value in the variable. A variable can be useful when the user needs to store one value in an object that can be easily changed or reused throughout the program. The user does not need one object to store numbers only when using an array, but rather when using a numeric data type. A numeric data type is a category of data that can store numbers in various formats or ranges, such as integers, floating-point numbers, complex numbers, etc. A numeric data type can be useful when the user needs one object to store numbers only that can be used for calculations or comparisons in the program.

**QUESTION 130**

Employees of a large technology company are provided access to the internet as a work resource.

Which of the following most likely represents the level of privacy employees should expect when utilizing this resource?

- A. Only the attempts to access unapproved URLs are logged.
- B. All internet usage is logged by a corporate server and may be monitored live.
- C. All internet browsing is private and anonymous.
- D. Only the attempts to access sites that include prohibited keywords are logged.

**Correct Answer: B**

**Section:****QUESTION 131**

A product advertising kiosk at a mall is set up using a thin client without a hard drive and is running a web application managed and updated through an internet connection. Which of the following application delivery methods is most likely being used for the kiosk?

- A. Local network-hosted
- B. Cloud-hosted
- C. Hybrid-installed
- D. Locally installed

**Correct Answer: B**

**Section:****Explanation:**

The application delivery method that is most likely being used for the kiosk is cloud-hosted. Cloudhosted is a type of application delivery method that involves running and accessing an application from a remote server or service over the internet. Cloud-hosted applications do not require installation or storage on the local device, but only a web browser or a client software to connect to the application. Cloud-hosted applications can provide benefits such as scalability, availability, security, and automatic updates. A product advertising kiosk at a mall that is set up using a thin client without a hard drive and is running a web application managed and updated through an internet connection is most likely using a cloud-hosted application delivery method, as it does not need any local resources or maintenance for the application. Local network-hosted is not the application delivery method that is most likely being used for the kiosk, but rather a type of application delivery method that involves running and accessing an application from a server or a device within the same local area network (LAN) as the client device. Local network-hosted applications require installation or storage on the server or device that hosts the application, but not on the client device. Local network-hosted applications can provide benefits such as speed, reliability, and control. A product advertising kiosk at a mall that is set up using a thin client without a hard drive and is running a web application managed and updated through an internet connection is not likely using a local networkhosted application delivery method, as it would need to be connected to a server or device within the same LAN as the kiosk. Hybrid-installed is not the application delivery method that is most likely being used for the kiosk, but rather a type of application delivery method that involves running and accessing an application from both a local device and a remote server or service over the internet.

Hybrid-installed applications require partial installation or storage on the local device, as well as a web browser or a client software to connect to the remote part of the application. Hybrid-installed applications can provide benefits such as flexibility, functionality, and performance. A product advertising kiosk at a mall that is set up using a thin client without a hard drive and is running a web application managed and updated through an internet connection is not likely using a hybridinstalled application delivery method, as it would need some local resources for the application.

Locally installed is not the application delivery method that is most likely being used for the kiosk, but rather a type of application delivery method that involves running and accessing an application from the local device only. Locally installed applications require full installation or storage on the local device, but do not need any web browser or client software to connect to the internet. Locally installed applications can provide benefits such as offline access, customization, and compatibility. A product advertising kiosk at a mall that is set up using a thin client without a hard drive and is running a web application managed and updated through an internet

connection is not likely using a locally installed application delivery method, as it would need a hard drive or other storage device for the application. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 4: Operating System Fundamentals1

#### QUESTION 132

A user browses to a website. Before the page opens, the user receives a message that the site is not secure. Which of the following caused this message?

- A. Certificate
- B. Proxy
- C. Script
- D. Malware

**Correct Answer: A**

**Section:**

**Explanation:**

A website that is not secure means that the connection between the user's browser and the web server is not encrypted or authenticated. This can expose the user's data to interception, modification, or impersonation by attackers. One way to secure a website is to use HTTPS (Hypertext Transfer Protocol Secure), which is a protocol that encrypts and verifies the data exchanged between the browser and the server. HTTPS relies on certificates, which are digital documents that contain information about the identity and public key of the website owner. Certificates are issued by trusted authorities called certificate authorities (CAs), which verify the legitimacy of the website owner before issuing a certificate. When a user browses to a website that uses HTTPS, the browser checks the certificate to ensure that it is valid, signed by a CA, and matches the website's domain name. If any of these checks fail, the browser will display a warning message that the site is not secure, and advise the user not to proceed or enter any sensitive information.

#### QUESTION 133

A user inserts a USB flash drive into a computer for the first time and sees a message on the screen indicating the device is being set up. The message quickly changes to indicate the device is ready for use. Which of the following device configuration types most likely occurred?

- A. Driver installation
- B. Plug-and-play
- C. IP-based
- D. Web-based

**Correct Answer: B**

**Section:**

**Explanation:**

The device configuration type that most likely occurred when the user inserted a USB flash drive into a computer for the first time and saw a message indicating the device is being set up and ready for use is plug-and-play. Plug-and-play is a feature that allows a device to be automatically recognized and configured by the operating system when it is connected to a computer using an interface such as USB or Bluetooth. Plug-and-play simplifies the installation and use of devices by eliminating the need for manual settings or drivers. Driver installation is not the device configuration type that most likely occurred when the user inserted a USB flash drive into a computer for the first time and saw a message indicating the device is being set up and ready for use, but rather part of plug-and-play process. Driver installation involves loading software that enables communication between device and operating system. Driver installation may happen automatically or manually depending on device compatibility with operating system. IP-based configuration is not device configuration type that most likely occurred when user inserted USB flash drive into computer for first time and saw message indicating device is being set up and ready for use, but rather device configuration type that involves assigning IP address to device to enable network communication. IP-based configuration may happen automatically using DHCP protocol

#### QUESTION 134

Which of the following would be the easiest component to upgrade on a laptop that is experiencing slow performance?

- A. Motherboard
- B. GPU
- C. RAM
- D. CPU



**Correct Answer: C**

**Section:**

**Explanation:**

The easiest component to upgrade on a laptop that is experiencing slow performance is RAM. RAM stands for Random Access Memory, which is a type of volatile memory that stores data temporarily while the computer is running. RAM allows fast access and modification of data by the CPU, but it loses its contents when the power is turned off. Upgrading RAM can improve the performance of a laptop by increasing the amount of data that can be stored and processed at the same time, reducing the need for swapping or paging to the hard disk. Upgrading RAM on a laptop is usually easy, as it only requires opening a small panel on the back or side of the laptop and inserting or replacing the RAM modules into the slots. The motherboard is not the easiest component to upgrade on a laptop that is experiencing slow performance, but rather one of the most difficult components to upgrade.

The motherboard is the main circuit board of a computer that connects and controls all the other components, such as the CPU, RAM, GPU, etc. Upgrading the motherboard can improve the performance of a laptop by supporting newer or faster components, but it is also very complex, costly, and risky. Upgrading the motherboard on a laptop may require replacing or reconfiguring many other components, as well as ensuring compatibility and stability with the operating system and drivers. The GPU is not the easiest component to upgrade on a laptop that is experiencing slow performance, but rather one of the most difficult components to upgrade. The GPU stands for Graphics Processing Unit, which is a specialized component of a computer that handles graphics and image processing. Upgrading the GPU can improve the performance of a laptop by increasing the speed and quality of rendering graphics, especially for gaming or video editing applications.

However, upgrading the GPU on a laptop is usually very hard or impossible, as most laptops have integrated GPUs that are soldered to the motherboard or CPU and cannot be replaced or upgraded.

The CPU is not the easiest component to upgrade on a laptop that is experiencing slow performance, but rather one of the most difficult components to upgrade. The CPU stands for Central Processing Unit, which is the main component of a computer that executes instructions and performs calculations. Upgrading the CPU can improve the performance of a laptop by increasing the speed and efficiency of processing data, especially for multitasking or complex applications. However, upgrading the CPU on a laptop is usually very hard or impossible, as most laptops have integrated CPUs that are soldered to the motherboard and cannot be replaced or upgraded. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 1: IT Fundamentals

#### QUESTION 135

An online retailer experienced an outage. An investigation revealed that the server received more requests than it could handle, and customers could not log in as a result. Which of the following best describes this scenario?

- A. Hardware failure
- B. Denial of service
- C. On-path attack
- D. Social engineering



**Correct Answer: B**

**Section:**

**Explanation:**

The scenario where an online retailer experienced an outage because the server received more requests than it could handle and customers could not log in as a result is best described as a denial of service. A denial of service is a type of attack that aims to disrupt or prevent the normal functioning or availability of a system or network by overwhelming it with excessive traffic or requests. A denial of service can cause performance degradation, slowdown, or outage for the system or network and its legitimate users. A denial of service can be performed by a single attacker or a group of attackers using multiple compromised devices, which is called a distributed denial of service (DDoS). A hardware failure is not the scenario that describes the online retailer's outage, but rather a possible cause or consequence of the outage. A hardware failure is a malfunction or breakdown of a physical component of a system or network, such as a disk, a memory, a CPU, a power supply, etc. A hardware failure can cause data loss, corruption, or interruption for the system or network and its users. A hardware failure can be caused by various factors, such as wear and tear, physical damage, overheating, power surge, etc. A hardware failure can also be induced by a denial of service attack that damages the hardware by overloading it. An on-path attack is not the scenario that describes the online retailer's outage, but rather a type of network attack that involves intercepting or modifying data packets that are transmitted between two parties on a network. An on-path attack can compromise the confidentiality, integrity, or authenticity of the data or communication between the parties. An on-path attack can be performed by an attacker who has access to the same network segment or device as one of the parties, such as a router, a switch, or a hub. An on-path attack can also be performed by an attacker who tricks one of the parties into sending data to them instead of the intended destination, which is called a man-in-the-middle attack.

A social engineering attack is not the scenario that describes the online retailer's outage, but rather a type of attack that exploits human psychology and behavior to manipulate people into performing actions or revealing information that benefits the attacker. A social engineering attack can take various forms, such as phishing, vishing, baiting, quid pro quo, pretexting, or tailgating. References:

The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 7: Security Concepts

#### QUESTION 136

Which of the following is the exact number of bytes in a gigabyte?

- A. 1,024 bytes
- B. 1,048,576 bytes

- C. 1,073,741,824 bytes
- D. 1,099,511,627,776 bytes

**Correct Answer: C**

**Section:**

**Explanation:**

The exact number of bytes in a gigabyte is 1.073.741.824 bytes. A byte is a unit of digital information that consists of eight bits. A bit is a binary digit that can have one of two values: 0 or 1. A byte can store one character, such as a letter, a number, or a symbol. A gigabyte is a unit of digital information that consists of 1.073.741.824 bytes or 1.024 megabytes. A megabyte is a unit of digital information that consists of 1.048.576 bytes or 1.024 kilobytes. A kilobyte is a unit of digital information that consists of 1.024 bytes. These units are based on the binary system, which uses powers of two to represent values. However, there are also decimal units that use powers of ten to represent values, such as gigabyte (GB), megabyte (MB), and kilobyte (KB). These units are often used by storage devices and network services to measure capacity or speed. In this case, one gigabyte (GB) equals 1 billion bytes or 1.000 megabytes (MB). One megabyte (MB) equals 1 million bytes or 1.000 kilobytes (KB). One kilobyte (KB) equals 1 thousand bytes. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 2: IT Concepts and Terminology

#### QUESTION 137

Which of the following are benefits of a security awareness training program? (Select two).

- A. Enhances overall security
- B. Provides information on how to avoid phishing
- C. Lowers the incidence of hardware failures
- D. Increases the availability of computers
- E. Advances end users' technical skills
- F. Creates IT security opportunities for end users

**Correct Answer: A, B**

**Section:**

**Explanation:**

The benefits of a security awareness training program are enhancing overall security and providing information on how to avoid phishing. Enhancing overall security is a benefit of a security awareness training program because it helps users understand the importance and value of security for themselves and their organization. It also helps users develop good security habits and behaviors, such as choosing strong passwords, locking their devices, reporting incidents, etc., which can prevent or reduce security risks and threats. Providing information on how to avoid phishing is a benefit of a security awareness training program because it helps users recognize and respond to phishing attacks, which are one of the most common and effective types of social engineering attacks.

Phishing attacks involve sending fraudulent emails or messages that appear to come from legitimate sources to trick recipients into clicking on malicious links or attachments, or providing personal or financial information. A security awareness training program can teach users how to identify phishing signs, such as spelling errors, generic greetings, urgent requests, etc., and how to verify the sender, the URL, or the attachment before opening or responding. Lowering the incidence of hardware failures is not a benefit of a security awareness training program, but rather a benefit of a hardware maintenance program. A hardware maintenance program involves performing regular checks and repairs on the physical components of a system or network, such as disks, memory, CPU, power supply, etc., to ensure their proper functioning and performance. A hardware maintenance program can prevent or reduce hardware failures, which can cause data loss, corruption, or interruption for the system or network and its users. Increasing the availability of computers is not a benefit of a security awareness training program, but rather a benefit of a backup and recovery program. A backup and recovery program involves creating and restoring copies of data or systems in case of data loss, corruption, or disaster. A backup and recovery program can increase the availability of computers by ensuring that users can access their data or systems from alternative sources or locations in case of an emergency. Advancing end users' technical skills is not a benefit of a security awareness training program, but rather a benefit of a technical training program. A technical training program involves teaching users how to use various technologies or applications effectively and efficiently. A technical training program can advance end users' technical skills by increasing their knowledge, competence, and productivity with the technologies or applications they use. Creating IT security opportunities for end users is not a benefit of a security awareness training program, but rather a benefit of a career development program. A career development program involves providing users with guidance and resources to help them achieve their professional goals and aspirations. A career development program can create IT security opportunities for end users by exposing them to different IT security roles, paths, or certifications that they can pursue or obtain. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 7: Security Concepts

#### QUESTION 138

Which of the following storage types is MOST vulnerable to magnetic damage?

- A. Flash
- B. SSD



- C. Optical
- D. HDD

**Correct Answer: D**

**Section:**

**QUESTION 139**

When developing a game, a developer creates a boss object that has the ability to jump. Which of the following programming concepts does jump represent?

- A. Method
- B. Object
- C. Property
- D. Attribute

**Correct Answer: A**

**Section:**

**Explanation:**

A method is a programming concept that represents a function or a procedure that performs a specific task or action on an object. An object is a programming concept that represents an instance of a class or a data type that has properties and methods. A method would best describe the ability to jump for a boss object in game development because it is an action that the boss object can perform. Property, object, and attribute are not programming concepts that represent the ability to jump for a boss object in game development. Property is a programming concept that represents a characteristic or a feature of an object, such as color, size, or name. Object is a programming concept that represents an instance of a class or a data type that has properties and methods. Attribute is another term for property in some programming languages. Reference: CompTIA IT Fundamentals+ Study Guide: Exam FC0-U61, Second Edition, Chapter 4: Programming Concepts and Data Structures, page 143.

**QUESTION 140**

Concerned with vulnerabilities on a home network, an administrator replaces the wireless router with a recently released new device. After configuring the new device utilizing the old SSID and key, some light switches are no longer communicating. Which of the following is the MOST likely cause?

- A. The light switches do not support WPA2.
- B. The router is operating on a different channel.
- C. The key does not meet password complexity requirements.
- D. The SSID is not being broadcast.

**Correct Answer: A**

**Section:**

**Explanation:**

WPA2 (WiFi Protected Access II) is a WiFi security option that uses encryption and authentication to protect the wireless network from unauthorized access or eavesdropping. WPA2 is the most secure and recommended WiFi security option among the options given. If some light switches are no longer communicating after replacing the wireless router with a new device that uses WPA2, the most likely cause is that the light switches do not support WPA2. The light switches may need to be updated or replaced to be compatible with WPA2. The router operating on a different channel, the key not meeting password complexity requirements, and the SSID not being broadcast are not likely causes of the light switches not communicating after replacing the wireless router with a new device that uses WPA2. Reference: CompTIA IT Fundamentals+ Study Guide: Exam FC0-U61, Second Edition, Chapter 8: Security Concepts, page 311.

**QUESTION 141**

Given the following pseudocode:

```
For each apple in the basket, eat two oranges unless it is the last apple, then eat three oranges.
For each apple in the basket, eat two oranges unless it is the last apple, then eat three oranges.
```

If there are seven apples in the basket, which of the following would be the number of oranges a person eats?

- A. 10
- B. 14
- C. 15
- D. 17

**Correct Answer: C**

**Section:**

**QUESTION 142**

Within a database, which of the following would be the best access method to use to display a subset of a table?

- A. UPDATE
- B. DROP
- C. SELECT
- D. INSERT

**Correct Answer: C**

**Section:**

**Explanation:**

The SELECT statement is used to query a database and retrieve a subset of data that matches the specified criteria. For example, `SELECT * FROM Customers WHERE City = 'London'` will return all the records from the Customers table where the City column is equal to 'London'. The SELECT statement can also be used to join multiple tables, perform calculations, sort and group data, and apply filters and functions. The SELECT statement is one of the most commonly used SQL commands and is essential for manipulating and analyzing data in a database.

**QUESTION 143**

Which of the following best explains the reason for password expiration?

- A. To disable unused user IDs
- B. To invalidate any compromised passwords
- C. To discourage writing down passwords
- D. To enforce new password complexity rules



**Correct Answer: B**

**Section:**

**Explanation:**

The best explanation for password expiration is to invalidate any compromised passwords. Password expiration is a security policy that requires users to change their passwords after a certain period of time, such as every 90 days. This reduces the risk of unauthorized access if an attacker obtains the user's password through phishing, hacking, or other means. If the user changes their password regularly, the old password becomes useless for the attacker. Password expiration does not necessarily disable unused user IDs, as the user may still be able to log in with their new password.

Password expiration does not discourage writing down passwords, as some users may still do so to remember their new passwords. Password expiration does not enforce new password complexity rules, as those rules apply to any password change regardless of expiration. References: CompTIA IT Fundamentals (ITF+) Study Guide: Exam FC0-U61, Second Edition, Chapter 5: Database Fundamentals and Security Concepts, page 181

**QUESTION 144**

A new device has been installed on a wired network and can be accessed via the LAN but cannot be accessed remotely.

Which of the following is the most likely cause?

- A. Firewall settings
- B. Improper switch configuration
- C. Incorrect IP address
- D. Misconfigured access point

**Correct Answer: A**

**Section:**

**Explanation:**

The most likely cause of the device being accessible via the LAN but not remotely is firewall settings.



A firewall is a software or hardware device that filters incoming and outgoing network traffic based on rules and policies. A firewall can block or allow traffic based on factors such as source and destination IP addresses, ports, protocols, and applications. If the firewall settings are too restrictive or misconfigured, they may prevent remote access to the device from outside the LAN. Improper switch configuration is unlikely to cause this issue, as switches are devices that forward packets within the same network segment based on MAC addresses. Switches do not block or filter traffic based on IP addresses or ports. Incorrect IP address is unlikely to cause this issue either, as an incorrect IP address would prevent the device from communicating with any other device on the network, not just remotely. Misconfigured access point is also unlikely to cause this issue, as access points are devices that provide wireless connectivity to the network. If the device is connected via a wired network, the access point is irrelevant. References: CompTIA IT Fundamentals (ITF+) Study Guide: Exam FC0-U61, Second Edition, Chapter 3: Infrastructure, page 95

#### QUESTION 145

Which of the following is an example of utilizing a personalized code for continuous personal access to a software product?

- A. Site licensing
- B. Open-source licensing
- C. Product key licensing
- D. Single-use licensing

**Correct Answer: C**

**Section:**

**Explanation:**

Product key licensing is an example of utilizing a personalized code for continuous personal access to a software product. A product key is a unique alphanumeric code that is required to activate or register a software product, such as an operating system or an application. A product key ensures that the user has a legitimate copy of the software and prevents unauthorized use or distribution.

Site licensing is a type of licensing that allows an organization to install and use a software product on multiple devices within a specific location, such as a school or a company. Open-source licensing is a type of licensing that allows anyone to access, modify, and distribute the source code of a software product, such as Linux or Apache. Single-use licensing is a type of licensing that allows only one installation and use of a software product, such as a game or an antivirus program. References: CompTIA IT Fundamentals (ITF+) Study Guide: Exam FC0-U61, Second Edition, Chapter 5: Database Fundamentals and Security Concepts, page 175

#### QUESTION 146

Which of the following is the main purpose for a MAC address to identify?

- A. A user
- B. A piece of hardware
- C. An IP address
- D. A network

**Correct Answer: B**

**Section:**

**Explanation:**

A MAC (Media Access Control) address is a unique identifier assigned to network interfaces for communication on the physical network segment. It is used to identify a specific piece of hardware, such as a network card or a network interface within a device. MAC addresses are crucial in ensuring the proper routing of data on local networks, functioning at the data link layer (Layer 2) of the OSI model.

A . A user is identified through user accounts, not hardware-level MAC addresses.

C . An IP address identifies devices on a network but operates at Layer 3 (Network Layer), while MAC addresses work at the hardware level.

D . A network is identified by an IP address or a subnet, not by a MAC address.

CompTIA Network+ Certification Objectives

Official CompTIA A+ Study Guide

#### QUESTION 147

Which of the following operating systems is best used in creating and managing virtual machines?

- A. Mobile
- B. Hypervisor

- C. Embedded
- D. Firewall

**Correct Answer: B**

**Section:**

**Explanation:**

A hypervisor is the best operating system for creating and managing virtual machines (VMs). It allows multiple operating systems to run simultaneously on a single physical machine by abstracting hardware resources and allocating them to VMs. There are two types of hypervisors: Type 1 (bare-metal) and Type 2 (hosted). Examples include VMware ESXi, Microsoft Hyper-V, and Oracle VM VirtualBox.

A . Mobile operating systems (e.g., Android, iOS) are designed for mobile devices and are not suitable for managing virtual machines.

C . Embedded operating systems are optimized for specialized hardware, not for virtualization.

D . Firewall is a security system used to control network traffic, not an operating system for managing VMs.

CompTIA Server+ Certification Objectives

Official CompTIA A+ Certification Guide

#### QUESTION 148

A technician has established a plan of action. Which of the following should the technician do next?

- A. Verify system functionality.
- B. Identify preventive measures.
- C. Document the findings.
- D. Implement a solution.

**Correct Answer: D**

**Section:**

**Explanation:**

After a technician has established a plan of action, the next step in the troubleshooting process is to implement the solution. This involves executing the plan that was carefully crafted to resolve the issue. Following this, the technician would then verify system functionality and take preventive measures if necessary, but implementation comes immediately after planning.

A . Verify system functionality occurs after the solution has been implemented.

B . Identify preventive measures happens towards the end, after the problem is resolved.

C . Document the findings is part of the final step, which takes place after verifying functionality and preventive measures.

CompTIA A+ Certification Exam Guide

Official CompTIA Troubleshooting Methodology

#### QUESTION 149

A user works at a health insurance company. Which of the following is the best method for ensuring a customer's personal information is kept confidential when it needs to be shared with another authorized employee?

- A. Sending it as an encrypted email to the other employee
- B. Putting it in a shared drive on the company's network
- C. Printing it out and giving it to the employee
- D. Putting it on the company's cloud document site

**Correct Answer: A**

**Section:**

**Explanation:**

The best method for ensuring a customer's personal information is kept confidential is to send it as an encrypted email. Encryption ensures that the data is securely transmitted and only accessible by the intended recipient. This is crucial in industries such as health insurance, where protecting sensitive personal information is a legal requirement under regulations like HIPAA (Health Insurance Portability and Accountability Act).

B . Putting it in a shared drive may expose the information to unauthorized access if permissions are not properly managed.

C . Printing it out introduces the risk of physical security breaches or loss of paper documents.

D . Putting it on a cloud document site could be secure but only if encryption and access control mechanisms are strictly enforced, which is not guaranteed in all cases.

CompTIA Security+ Certification Guide

HIPAA Compliance Guidelines for IT Professionals

**QUESTION 150**

An accounting firm needs to allow users to update records simultaneously without errors. Which of the following best meets the firm's needs?

- A. Flat file
- B. Document
- C. Database
- D. Spreadsheet

**Correct Answer: C**

**Section:**

**Explanation:**

A database is the best solution for allowing multiple users to update records simultaneously without causing errors. Databases, especially relational databases like MySQL, PostgreSQL, and Microsoft SQL Server, are designed for concurrent access, ensuring data consistency and integrity through mechanisms like transaction management and locking.

A . Flat file does not support concurrent access efficiently, making it unsuitable for simultaneous updates.

B . Document formats like Word or PDFs are not designed for simultaneous multi-user editing.

D . Spreadsheet programs like Excel can allow multiple users to view data but are prone to errors when used for concurrent data updates.

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