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**Exam Code: FC0-U61**  
**Exam Name: CompTIA IT Fundamentals**



## Exam A

### QUESTION 1

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 2

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 3

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; What is RDBMS (Relational Database Management System) - Javatpoint; What is a Relational Database Management System? | Microsoft Azure

### QUESTION 4

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 5**

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 6**

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 7**

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 8**

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 9**

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 10**

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 11**

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 12**

Which of the following is a compiled language?

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

**Correct Answer: C**

**Section:**



**QUESTION 13**

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 14**

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 15**

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 16**

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 17**

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 18**

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 19**

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 20**

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 21**

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 22**

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 23**

A UPS provides protection against:

- A. denial of service
- B. replay attack.
- C. power outages.
- D. wiretapping.

**Correct Answer: C**

**Section:**

**QUESTION 24**

A company executive wants to view company training videos from a DVD. Which of the following components would accomplish this task?

- A. Optical drive
- B. Hard disk drive
- C. Solid state drive
- D. Flash drive

**Correct Answer: A**

**Section:**

**QUESTION 25**

A technician is troubleshooting a problem. The technician tests the theory and determines the theory is confirmed. Which of the following should be the technician's NEXT step?

- A. Implement the solution.
- B. Document lessons learned.



- C. Establish a plan of action.
- D. Verify full system functionality.

**Correct Answer: C**

**Section:**

#### QUESTION 26

Given the following pseudocode:

```
program Breakfast
weekday = ["Monday", "Tuesday", "Wednesday", "Thursday", "Friday"]
weekend = ["Saturday", "Sunday"]
  if today == Wednesday
    output "Bacon and eggs"
  else if today == Firday
    output "Oatmeal"
  else if today in weekend
    output "Waffles"
  else
    output "Pancakes"
end
```

```
program Breakfast
weekday = ["Monday", "Tuesday", "Wednesday", "Thursday", "Friday"]
weekend = ["Saturday", "Sunday"]
  if today == Wednesday
    output "Bacon and eggs"
  else if today == Firday
    output "Oatmeal"
  else if today in weekend
    output "Waffles"
  else
    output "Pancakes"
end
```

If the Breakfast program ran on Sunday, which of the following would be the output?

- A. Oatmeal
- B. Bacon and eggs
- C. Waffles
- D. Pancakes

**Correct Answer: D**

**Section:**

**Explanation:**

The output of the Breakfast program if it ran on Sunday would be pancakes. The program uses an if-else-if-else statement to choose among different breakfast options based on the day of the week input. The program first checks if the day input is equal to "Saturday". If this condition is true, it prints "Waffles" and ends. If this condition is false, it checks if the day input is equal to "Sunday". If this condition is true, it prints "Pancakes" and ends. If this condition is false, it prints "Oatmeal" and ends. Since the day input is "Sunday", the second condition is true, and the program prints "Pancakes".

#### QUESTION 27

A desktop administrator just connected a printer to a workstation, but the workstation does not recognize the printer. Which of the following does the workstation MOST likely need for the printer to function?

- A. Permission
- B. Ink cartridge
- C. USB cable
- D. Driver

**Correct Answer: D**

**Section:**

#### QUESTION 28

Which of the following BEST describes a kilobyte?

- A. A kilobyte is a measurement of storage (e.g., 100KB).
- B. A kilobyte is a measurement of throughput (e.g., 100Kbps).
- C. A kilobyte is a measurement of power (e.g., 100KW).





D. A kilobyte is a measurement of processor speed (e.g., 2.4KHz).

**Correct Answer: A**

**Section:**

**Explanation:**

A kilobyte is a unit of digital information that equals 1,024 bytes. A byte is the smallest unit of data that can be stored or processed by a computer. A kilobyte can store a small amount of text, such as a few sentences or a paragraph. Storage devices, such as hard disks and flashdrives, use kilobytes and other larger units, such as megabytes and gigabytes, to measure their capacity and performance. Reference: The Official CompTIA IT Fundamentals (ITF+) Study Guide (FC0-U61), page 38

#### QUESTION 29

Which of the following security concerns is a threat to confidentiality?

- A. Replay attack
- B. Denial of service
- C. Service outage
- D. Dumpster diving

**Correct Answer: D**

**Section:**

**Explanation:**

Dumpster diving is a technique used by attackers to obtain sensitive information from discarded documents, such as passwords, account numbers, or personal details. This information can be used to breach the confidentiality of an organization or an individual. Confidentiality is the principle of protecting information from unauthorized access or disclosure. To prevent dumpster diving, documents containing confidential information should be shredded or securely disposed of. Reference: The Official CompTIA IT Fundamentals (ITF+) Study Guide (FC0-U61), page 206.

#### QUESTION 30

Which of the following software license models allows a developer to modify the original code and release its own version of the application?

- A. Proprietary software
- B. Commercial software
- C. Open source software
- D. Cross-platform software

**Correct Answer: C**

**Section:**

#### QUESTION 31

Which of the following are the basic computing operations?

- A. Input, process, output, and feedback
- B. Input, output, storage, and feedback
- C. Input, process, and output
- D. Input, process, output, and storage

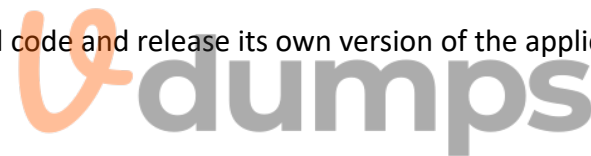
**Correct Answer: D**

**Section:**

#### QUESTION 32

Which of the following would work BEST stored as a flat file rather than stored in a database?

- A. Contact list



- B. Movie theater locations
- C. Directions to doctor's office
- D. Store inventory

**Correct Answer: C**

**Section:**

**Explanation:**

Directions to doctor's office would work best stored as a flat file rather than stored in a database. A flat file is a simple text file that contains one record per line and has a fixed structure or format. A flat file is suitable for storing simple or static data that does not require frequent updates or complex queries. A database is a collection of organized data that can be accessed, manipulated, and updated using a database management system (DBMS). A database is suitable for storing complex or dynamic data that requires frequent updates or complex queries. Reference: The Official CompTIA IT Fundamentals (ITF+) Study Guide (FC0-U61), pages 142-143

### QUESTION 33

An administrator grants permission for a user to access data in a database. Which of the following actions was performed?

- A. Data correlation
- B. Data manipulation
- C. Data gathering
- D. Data definition

**Correct Answer: D**

**Section:**

### QUESTION 34

An employee is asked to generate a report on a student information system. The employee uses spreadsheet software and connects to a remote database to pull data for the report. Which of the following types of application architectures did the employee use?

- A. Standalone application
- B. Client-server application
- C. Web application
- D. Cloud application

**Correct Answer: B**

**Section:**

### QUESTION 35

Ann, a user, is experiencing difficulty getting her IP-based security camera to function at her house after a rain storm that caused a power interruption. The camera has an LED light indicating it has power. Which of the following is MOST likely the problem?

- A. The power interruption caused the camera to malfunction.
- B. Ann has a compatibility problem with the camera.
- C. A firmware update needs to be applied to the camera.
- D. Ann's Internet connection and wireless router are still down.

**Correct Answer: D**

**Section:**

### QUESTION 36

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 37**

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 38**

Which of the following will a company do to update a customer's address while using a flat file database?

- A. Update the address for each order the customer placed.
- B. Update the address in the customer address table.
- C. Update the address field in the customer order table.
- D. Update the primary key to reflect the customer's address.



**Correct Answer: C**

**Section:**

**QUESTION 39**

A developer embeds a query in a high-level program to extract information from a database. This is an example of:

- A. database direct access.
- B. database utility access.
- C. database programmatic access.
- D. database manual access.

**Correct Answer: A**

**Section:**

**QUESTION 40**

Which of the following is the LOWEST unit for measuring bandwidth?

- A. Mbps
- B. Kbps

- C. MBps
- D. KBps

**Correct Answer: B**

**Section:**

**QUESTION 41**

A user connects a company computer to free WiFi at a local coffee shop. Which of the following BEST describes this situation?

- A. Information on this network is encrypted.
- B. The information on the network can be seen by others.
- C. It is safe to access company information using the network.
- D. Private browsing mode protects the information on the network.

**Correct Answer: B**

**Section:**

**QUESTION 42**

A user wants to add an IoT device to a network. The device connects with a cable to the router. Which of the following is a requirement for this device to work?

- A. Driver
- B. USB cable
- C. IP address
- D. Workstation

**Correct Answer: C**

**Section:**

**QUESTION 43**

Which of the following is used for assigning IP addresses to networking devices?

- A. SMTP
- B. DHCP
- C. DNS
- D. ARP

**Correct Answer: B**

**Section:**

**QUESTION 44**

A help desk has initiated a new policy requiring that technicians manually categorize the reason for a customer call. After several months, they are unable to perform any analysis on the information. Which of the following concepts is MOST closely tied to the root cause of this issue?

- A. Data correlation
- B. Data security
- C. Data capture
- D. Data as an asset



**Correct Answer: A**

**Section:**

**QUESTION 45**

During a power outage, a server with redundant power supplies shuts down despite being connected to a UPS. The technician determines that the UPS has failed and replaces it. The technician then separates the power supplies to connect them to two separate UPSs. Which of the following troubleshooting steps did the technician just accomplish?

- A. Implement preventive measures.
- B. Establish a plan of action.
- C. Document findings/lessons learned.
- D. Test the theory to determine the cause.

**Correct Answer: B**

**Section:**

**QUESTION 46**

An end user reports seeing the old company intranet site and not the recently released updated version. Which of the following would MOST likely solve the problem?

- A. Clear browser cache.
- B. Change "http" to "https" in the URL.
- C. Disable all add-ons.
- D. Enable pop-up blockers.

**Correct Answer: A**

**Section:**

**QUESTION 47**

Which of the following BEST describes a LAN-hosted application? (Choose two.)

- A. Internet access required
- B. Services required
- C. Network required
- D. Files saved to the cloud
- E. Internet access not required
- F. Cloud availability

**Correct Answer: C, E**

**Section:**

**QUESTION 48**

A technician is given a document with step-by-step instructions to perform a task. Which of the following BEST describes that document?

- A. Policies
- B. Standards
- C. Procedures
- D. Guidelines



**Correct Answer: C**

**Section:**

**QUESTION 49**

A technician installs a webcam to a computer and wants to install an updated driver. In which of the following would the technician find the MOST current driver?

- A. Installation disc that came with the device
- B. OEM website for the camera
- C. Internet help-desk forums
- D. Computer manufacturer's website

**Correct Answer: B**

**Section:**

**QUESTION 50**

Which of the following is a benefit of a locally hosted network solution?

- A. No Internet access is required
- B. There are fewer IT support requirements.
- C. System backups are not required
- D. System fault tolerance is increased

**Correct Answer: A**

**Section:**

**QUESTION 51**

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

- A. Perl
- B. HTML
- C. Java
- D. Python

**Correct Answer: C**

**Section:**

**QUESTION 52**

When following the troubleshooting methodology, which of the following should be performed when establishing a theory of probable cause?

- A. Question-the obvious.
- B. Identify the symptoms.
- C. Duplicate the problem.
- D. Determine if anything has changed.

**Correct Answer: D**

**Section:**

**Explanation:**



**QUESTION 53**

Which of the following storage types uses platters to store data?

- A. Hard drive
- B. Solid-state drive
- C. Optical drive
- D. Flash drive

**Correct Answer: A**

**Section:**

**Explanation:**

A hard drive, also known as a hard disk drive (HDD), is a type of storage device that uses one or more rotating platters coated with magnetic material to store data. The platters are accessed by read/write heads that move across the surface of the platters as they spin. The data is stored as tiny magnetic regions on the platters, which can be changed or read by the heads. Hard drives are non-volatile, meaning they retain data even when power is off. Hard drives offer large storage capacity, low cost per gigabyte, and fast data transfer rates compared to other storage types. However, they are also prone to mechanical failures, noise, heat, and physical damage

**QUESTION 54**

Which of the following would be the best reason to implement a host firewall?

- A. To prevent external access
- B. To prevent hardware failures
- C. To prevent the removal of software
- D. To prevent wiretapping

**Correct Answer: A**

**Section:**

**Explanation:**

A host firewall is a software program that runs on a computer or device and monitors and controls the incoming and outgoing network traffic based on predefined rules. A host firewall can help prevent external access from unauthorized or malicious sources, such as hackers, malware, or network worms. A host firewall can also block unwanted or unnecessary traffic from reaching the computer or device, which can improve performance and security. A host firewall can be configured to allow or deny traffic based on various criteria, such as port number, protocol, application, source address, destination address, or content. A host firewall can also log or alert the user about any suspicious or blocked activity.

**QUESTION 55**

A developer is writing a script to calculate a bank account balance within two decimal places. Which of the following data types should the developer select to store the balance?

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

**Correct Answer: C**

**Section:**

**Explanation:**

A float is a data type that can store decimal numbers, such as 3.14 or 0.01. This is suitable for calculating a bank account balance within two decimal places, as it can represent fractions of a dollar. A boolean is a data type that can only store true or false values, which is not useful for numerical calculations. An integer is a data type that can store whole numbers, such as 1 or 100, but not decimals. A char is a data type that can store a single character, such as 'a' or '9', but not multiple characters or decimals. References: CompTIA IT Fundamentals (ITF+) Study Guide: Exam FC0-U61, Second Edition, Chapter 4: Software Development Concepts, page 1371

**QUESTION 56**

A programmer is generating results by iterating rows that provide values needed for one calculation.

Which of the following functions best accomplishes this task?

- A. Branching
- B. Pausing for input
- C. Sorting
- D. Looping

**Correct Answer: D**

**Section:**

**Explanation:**

Looping is a function that allows a programmer to repeat a block of code for a certain number of times or until a condition is met. This is useful for iterating rows that provide values needed for one calculation, as it can perform the same operation on each row without writing redundant code.

Branching is a function that allows a programmer to execute different blocks of code depending on a condition, such as an if-else statement. Pausing for input is a function that allows a programmer to stop the execution of the code and wait for the user to enter some data, such as using the input() function in Python. Sorting is a function that allows a programmer to arrange a collection of data in a certain order, such as ascending or descending. References: CompTIA IT Fundamentals (ITF+) Study Guide: Exam FC0-U61, Second Edition, Chapter 4: Software Development Concepts, page 139

#### QUESTION 57

Salespeople roam around a retail store conducting transactions. Which of the following computing devices would be most ideal for point-of-sale transactions?

- A. Workstation
- B. Laptop
- C. Cellphone
- D. Thin client

**Correct Answer: C**

**Section:**

**Explanation:**

A cellphone is the most ideal computing device for point-of-sale transactions in a retail store where salespeople roam around. A cellphone is portable, wireless, and has features such as cameras, scanners, and touchscreens that can facilitate payment processing and customer interaction. A workstation is a desktop computer that is designed for high-performance tasks, but it is not portable or wireless. A laptop is a portable computer that can run on battery power, but it is not as convenient or compact as a cellphone. A thin client is a computer that relies on a server for most of its processing and storage, but it is not suitable for point-of-sale transactions without network connectivity. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 1: IT Fundamentals1

#### QUESTION 58

An IT manager wants to prevent end users from booting alternative operating systems on workstations. Which of the following security-related best practices would be used to accomplish this?

- A. Installing a host-based firewall
- B. Setting a BIOS password
- C. Patching the operating system
- D. Removing unnecessary software

**Correct Answer: B**

**Section:**

**Explanation:**

Setting a BIOS password is a security-related best practice that would prevent end users from booting alternative operating systems on workstations. A BIOS password restricts access to the BIOS settings, which control the boot order and other hardware configurations of the computer. Installing a hostbased firewall, patching the operating system, and removing unnecessary software are also securityrelated best practices, but they do not directly prevent booting alternative operating systems on workstations. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 7: Security Concepts1

#### QUESTION 59





Which of the following business continuity concepts is the best example of fault tolerance?

- A. Data restoration
- B. Redundant power
- C. Disaster recovery
- D. Restoring access

**Correct Answer: B**

**Section:**

**Explanation:**

Redundant power is the best example of fault tolerance among the given business continuity concepts. Fault tolerance refers to the ability of a system to continue functioning despite failures or errors in some of its components. Redundant power provides backup sources of electricity in case of power outages or surges, ensuring uninterrupted operation of critical systems. Data restoration refers to the process of recovering lost or corrupted data from backups or other sources. Disaster recovery refers to the plan and procedures for restoring normal business operations after a major disruption, such as a natural disaster or a cyberattack. Restoring access refers to the process of granting users the ability to use systems or resources that were previously unavailable or inaccessible. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 7: Security Concepts1

#### QUESTION 60

Which of the following is the slowest processing speed?

- A. 2.6GHz
- B. 5000Kbps
- C. 3.4MHz
- D. 4Mbps

**Correct Answer: C**

**Section:**

**Explanation:**

Processing speed is measured in hertz (Hz), which is the number of cycles per second that a processor can perform. The higher the hertz, the faster the processing speed. There are different units of hertz, such as megahertz (MHz), which is one million hertz, and gigahertz (GHz), which is one billion hertz. Therefore, 3.4MHz is the slowest processing speed among the given options, as it is equivalent to 3.4 million hertz. 2.6GHz is equivalent to 2.6 billion hertz, which is the fastest processing speed among the given options. 5000Kbps and 4Mbps are not units of processing speed, but units of data transfer rate, which measure how much data can be transmitted over a network in a given time. Kbps stands for kilobits per second, and Mbps stands for megabits per second. One megabit is equal to 1000 kilobits, so 4Mbps is equivalent to 4000Kbps. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 1: IT Fundamentals

#### QUESTION 61

Which of the following categories describes commands used to extract information from a database?

- A. DDL
- B. DDR
- C. DLL
- D. DML

**Correct Answer: D**

**Section:**

**Explanation:**

DML stands for Data Manipulation Language, which is a category of commands used to extract information from a database, such as SELECT, INSERT, UPDATE, and DELETE. These commands allow a programmer to query, modify, and delete data from tables and views in a database. DDL stands for Data Definition Language, which is a category of commands used to create and modify the structure of a database, such as CREATE, ALTER, and DROP. These commands allow a programmer to define tables, views, indexes, and other objects in a database. DDR stands for Data Recovery Language, which is not a standard category of commands in SQL (Structured Query Language), the most common language for interacting with databases. DLL stands for Dynamic Link Library, which is not related to databases at all. It is a file format that contains executable code and resources that can be



#### QUESTION 62

A user is selecting software to use to prepare handouts for a presentation. The user would like the information to be easy to format and printer friendly. Which of the following software types should the user select?

- A. Word processing
- B. Spreadsheet
- C. Text editor
- D. Visual diagramming

**Correct Answer: A**

**Section:**

**Explanation:**

The software type that the user should select to prepare handouts for a presentation that are easy to format and printer friendly is word processing. Word processing is a type of software that allows users to create, edit, format, and print text documents, such as letters, reports, resumes, etc. Word processing software provides features such as fonts, styles, margins, alignment, bullets, numbering, tables, images, etc., that enable users to customize the appearance and layout of their documents.

Word processing software also provides features such as spell check, grammar check, word count, etc., that enable users to improve the quality and accuracy of their documents. Word processing software can also support various file formats and printing options that enable users to save and print their documents easily and conveniently. Examples of word processing software include Microsoft Word, Google Docs, LibreOffice Writer, etc. Spreadsheet is not the software type that the user should select to prepare handouts for a presentation that are easy to format and printer friendly, but rather a type of software that allows users to create, edit, format, and print numerical data in rows and columns, such as budgets, invoices, charts, etc. Spreadsheet software provides features such as formulas, functions, graphs, pivot tables, etc., that enable users to perform calculations, analysis, or visualization on their data. Spreadsheet software can also support various file formats and printing options that enable users to save and print their data easily and conveniently. Examples of spreadsheet software include Microsoft Excel, Google Sheets, LibreOffice Calc, etc. Text editor is not the software type that the user should select to prepare handouts for a presentation that are easy to format and printer friendly, but rather a type of software that allows users to create, edit, or view plain text files, such as code, scripts, notes, etc. Text editor software provides features such as syntax highlighting, search and replace, indentation, etc., that enable users to manipulate text easily and efficiently. Text editor software does not provide features such as fonts, styles, images, etc., that enable users to customize the appearance or layout of their documents. Text editor software can also support various file formats but not printing options that enable users to save but not print their files easily and conveniently. Examples of text editor software include Notepad++, Sublime Text, Vim, etc.

#### QUESTION 63

Which of the following types of memory can retain its content after a system reboot?

- A. DDR
- B. DIMM
- C. RAM
- D. ROM

**Correct Answer: D**

**Section:**

**Explanation:**

The type of memory that can retain its content after a system reboot is ROM. ROM stands for Read-Only Memory, which is a type of non-volatile memory that stores data permanently even when the power is turned off. ROM can only be read by the CPU, but not written or modified. ROM contains essential data and instructions that are needed for the system to boot up and operate, such as the BIOS (Basic Input/Output System) or the firmware. DDR is not the type of memory that can retain its content after a system reboot, but rather a type of 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. DDR stands for Double Data Rate, which is a technology that allows RAM to transfer data twice as fast as normal RAM. DDR has different generations, such as DDR2, DDR3, or DDR4, which have different speeds and capacities. DIMM is not the type of memory that can retain its content after a system reboot, but rather a type of module or package that contains RAM chips. DIMM stands for Dual In-line Memory Module, which is a circuit board that has RAM chips on both sides and pins on both edges. DIMM can be inserted into slots on the motherboard to increase the amount of RAM available for the system. DIMM has different types and sizes, such as SDRAM, DDR, DDR2, DDR3, or DDR4 DIMMs. RAM is not the type of memory that can retain its content after a system reboot, but rather the type of memory that loses its content when the power is turned off. 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. RAM can be packaged into modules or packages, such as DIMMs or SO-DIMMs. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 1: IT Fundamentals1

#### QUESTION 64

Which of the following filesystems is compatible with the greatest number of operating systems?

- A. ext4
- B. FAT32
- C. NTFS
- D. HFS

**Correct Answer: B**

**Section:**

**Explanation:**

The filesystem that is compatible with the greatest number of operating systems is FAT32. FAT32 stands for File Allocation Table 32-bit, which is a filesystem that organizes data into clusters or groups of sectors on a storage device, such as a hard disk or a flash drive. FAT32 uses a 32-bit table to keep track of the location and status of each cluster. FAT32 can support volumes up to 2 TB and files up to 4 GB in size. FAT32 is compatible with most operating systems, such as Windows, Linux, Mac OS, Android, etc., as well as most devices, such as cameras, printers, game consoles, etc. FAT32 is one of the oldest and simplest filesystems, but it also has some limitations and drawbacks, such as fragmentation, waste of space, lack of security features, etc. ext4 is not the filesystem that is compatible with the greatest number of operating systems, but rather a filesystem that is mainly used by Linux operating systems. ext4 stands for Fourth Extended Filesystem, which is a filesystem that organizes data into blocks or groups of sectors on a storage device. ext4 uses an inode table to keep track of the location and attributes of each file or directory. ext4 can support volumes up to 1 EB and files up to 16 TB in size. ext4 has many features and advantages over FAT32, such as journaling, extents, subdirectories, encryption, etc., but it also has limited compatibility with other operating systems, such as Windows or Mac OS. NTFS is not filesystem that is compatible with greatest number of operating systems, but rather filesystem that is mainly used by Windows operating systems. NTFS stands for New Technology File System, which is filesystem that organizes data into clusters or groups of sectors on storage device. NTFS uses Master File Table (MFT) to keep track of location and attributes of each file or directory. NTFS can support volumes up to 256 TB and files up to 256 TB in size. NTFS has many features and advantages over FAT32, such as journaling, compression, encryption, security, etc., but it also has limited compatibility with other operating systems, such as Linux or Mac OS. HFS is not filesystem that is compatible with greatest number of operating systems, but rather filesystem that is mainly used by Mac OS operating systems. HFS stands for Hierarchical File System, which is filesystem that organizes data into blocks or groups of sectors on storage device. HFS uses catalog file to keep track of location and attributes of each file or directory. HFS can support volumes up to 2 TB and files up to 2 GB in size. HFS has some features and advantages over FAT32, such as resource forks, aliases, etc., but it also has some limitations and drawbacks, such as fragmentation, waste of space, lack of security features, etc. HFS also has limited compatibility with other operating systems, such as Windows or Linux. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 4: Operating System Fundamentals1

#### QUESTION 65

Which of the following data types should a database administrator use to store customer postal codes?

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

**Correct Answer: B**

**Section:**

**Explanation:**

A postal code is a string of alphanumeric characters that identifies a specific location. A string data type is used to store text or character data, such as names, addresses, or postal codes. A float data type is used to store decimal numbers, such as prices or weights. A boolean data type is used to store logical values, such as true or false. An integer data type is used to store whole numbers, such as counts or quantities. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 6: Database Fundamentals1

#### QUESTION 66

Which of the following protocols is used to relay email from a user's mail server?

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

**Correct Answer: C**

**Section:**

**Explanation:**

SMTP stands for Simple Mail Transfer Protocol, which is used to relay email from a user's mail server to another mail server or from a mail client to a user's mail server. IMAP stands for Internet Message Access Protocol, which is used to access and manage email messages on a mail server. FTP stands for File Transfer Protocol, which is used to transfer files between computers over a network. POP3 stands for Post Office Protocol version 3, which is used to download email messages from a mail server to a mail client. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 5: Infrastructure Concepts1

**QUESTION 67**

A technician has verified full system functionality. Which of the following actions should the technician take next?

- A. Question the users.
- B. Determine if anything has changed.
- C. Document the findings.
- D. Gather Information.

**Correct Answer: C**

**Section:**

**Explanation:**

Documenting the findings is the last step in the troubleshooting process, after verifying full system functionality. Documenting the findings helps to create a record of the problem and the solution, which can be useful for future reference or training purposes. Questioning the users, determining if anything has changed, and gathering information are steps that precede verifying full system functionality in the troubleshooting process.

References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 2: IT Concepts and Terminology1

**QUESTION 68**

Which of the following commands can be used to remove a database permanently?

- A. DENY
- B. DROP
- C. ALTER
- D. DUMP



**Correct Answer: B**

**Section:**

**Explanation:**

DROP is a SQL command that can be used to remove a database permanently from a database management system. DENY is a SQL command that can be used to revoke permissions from a user or role. ALTER is a SQL command that can be used to modify the structure of a database object, such as a table or column. DUMP is not a valid SQL command, but it may refer to a backup operation that creates a copy of a database. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 6: Database Fundamentals1

**QUESTION 69**

Which of the following creates multifactor authentication when used with something you have?

- A. Single sign-on
- B. Hardware token
- C. Geolocation
- D. Password

**Correct Answer: D**

**Section:**

**Explanation:**

A password is something you know, which can be used to create multifactor authentication when used with something you have, such as a hardware token or a smart card. Multifactor authentication is a security method that requires two or more factors of authentication to verify a user's identity. Single sign-on is a feature that allows a user to access multiple applications or systems with one set of credentials, but it does not necessarily involve multifactor authentication. Geolocation is a feature that determines a user's physical location based on GPS or other methods, but it does not necessarily involve multifactor authentication. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 7: Security Concepts

#### QUESTION 70

Which of the following is used to protect intellectual property while requiring the owner to provide the public with working details?

- A. Patent
- B. Trademark
- C. License
- D. Copyright

**Correct Answer: A**

**Section:**

**Explanation:**

A patent is used to protect intellectual property while requiring the owner to provide the public with working details of an invention or a process. A patent grants the owner the exclusive right to make, use, or sell the invention or process for a limited period of time, usually 20 years. A trademark is used to protect a name, symbol, logo, or slogan that identifies a product or service. A trademark grants the owner the exclusive right to use the mark to distinguish their product or service from others. A license is used to grant permission to use intellectual property under certain terms and conditions. A license does not transfer ownership of the intellectual property, but only grants limited rights to use it. A license can be revoked by the owner if the terms and conditions are violated. A copyright is used to protect original works of authorship, such as books, music, movies, or software.

A copyright grants the owner the exclusive right to reproduce, distribute, perform, display, or create derivative works based on their original work. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 8: Software Development Concepts

#### QUESTION 71

A programmer needs an element that will automatically store customer orders consecutively by order number every time a new order is placed. Which of the following elements should be used?

- A. Vector
- B. Sequence
- C. Array
- D. Constant

**Correct Answer: B**

**Section:**

**Explanation:**

A sequence is an element that will automatically store customer orders consecutively by order number every time a new order is placed. A sequence is a database object that generates sequential numbers according to a specified rule. A sequence can be used to create unique identifiers for records in a table, such as order numbers or customer IDs. A vector is an element that can store multiple values of the same data type in an ordered sequence, but it does not automatically generate sequential numbers. A vector is a data structure that can be used in programming languages such as C++ or Java. An array is an element that can store multiple values of the same data type in an indexed sequence, but it does not automatically generate sequential numbers. An array is a data structure that can be used in programming languages such as C or Python. A constant is an element that can store a single value of any data type that does not change during the execution of a program, but it does not automatically generate sequential numbers. A constant is a variable that can be used in programming languages such as C# or JavaScript. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 6: Database Fundamentals, Chapter 8: Software Development Concepts

#### QUESTION 72

Which of the following is the most secure filesystem?

- A. FAT32
- B. NFS
- C. NTFS

D. exFAT

**Correct Answer: C**

**Section:**

**Explanation:**

NTFS stands for New Technology File System, which is the most secure file system among the given options. NTFS is a file system that was developed by Microsoft for Windows operating systems. NTFS supports features such as encryption, compression, permissions, quotas, and auditing, which enhance the security and performance of the file system. FAT32 stands for File Allocation Table 32, which is a file system that was developed by Microsoft for older versions of Windows and DOS operating systems. FAT32 does not support encryption, compression, permissions, quotas, or auditing, and it has limitations on the size of files and partitions that it can handle. NFS stands for Network File System, which is a file system that was developed by Sun Microsystems for Unix and Linux operating systems. NFS allows users to access files on remote servers as if they were local files, but it does not support encryption or compression. exFAT stands for Extended File Allocation Table, which is a file system that was developed by Microsoft for flash drives and other removable media.

exFAT supports larger files and partitions than FAT32, but it does not support encryption, compression, permissions, quotas, or auditing. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 4: Operating System Fundamentals

### QUESTION 73

Which of the following can a company use to protect its logo?

- A. Trademark
- B. Copyright
- C. Domain name
- D. patent

**Correct Answer: A**

**Section:**

**Explanation:**

A trademark is the best option for a company to protect its logo. A trademark is a name, symbol, logo, or slogan that identifies a product or service and distinguishes it from others in the market. A trademark grants the owner the exclusive right to use the mark and to prevent others from using confusingly similar marks. A trademark can be registered with the appropriate authority to obtain legal protection and enforcement. A trademark can last indefinitely as long as it is used and renewed periodically. A trademark can also be indicated by the symbols ™ or ®. A copyright is not suitable for protecting a logo, as it only protects original works of authorship, such as books, music, movies, or software. A domain name is not suitable for protecting a logo, as it only identifies a website or an email address on the internet. A domain name can be registered with a domain name registrar to obtain exclusive use of the name for a certain period of time. A domain name can also be trademarked if it meets the criteria for trademark protection. A patent is not suitable for protecting a logo, as it only protects inventions or processes that are new, useful, and non-obvious. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 8: Software Development Concepts

### QUESTION 74

Which of the following scripting languages is most likely to be used in a Linux command-line environment?

- A. JavaScript
- B. PowerShell
- C. C++
- D. Bash

**Correct Answer: D**

**Section:**

**Explanation:**

Bash is the most likely scripting language to be used in a Linux command-line environment. Bash stands for Bourne-Again Shell, which is a shell program that allows users to interact with the operating system by typing commands or running scripts. Bash is the default shell for most Linux distributions, and it supports features such as variables, loops, functions, and pipes. JavaScript is a scripting language that is mainly used for web development, especially for creating dynamic and interactive web pages. JavaScript can run in a browser or on a server, but it is not commonly used in a Linux command-line environment. PowerShell is a scripting language that is mainly used for Windows administration, especially for automating tasks and managing systems. PowerShell can run commands or scripts in a console or an integrated development environment (IDE), but it is not compatible with Linux by default. C++ is a programming language that is mainly used for software development, especially for creating applications that run close to the hardware or require high performance. C++ can run on various platforms, including Linux, but it is not a scripting language and it requires compilation before execution. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 8: Software Development Concepts



**QUESTION 75**

When editing a document, which of the following describes where the changes are located before they are saved to permanent storage?

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

**Correct Answer: C**

**Section:**

**Explanation:**

RAM stands for Random Access Memory, which is where the changes are located before they are saved to permanent storage when editing a document. RAM 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. SSD stands for Solid State Drive, which is a type of permanent storage that stores data persistently even when the power is turned off. SSD uses flash memory chips to store data, which offer faster performance and lower power consumption than traditional hard disk drives (HDDs). CPU stands for Central Processing Unit, which is the main component of a computer that executes instructions and performs calculations. CPU does not store data, but it uses registers and cache memory to hold data temporarily during processing. GPU stands for Graphics Processing Unit, which is a specialized component of a computer that handles graphics and image processing. GPU does not store data, but it uses dedicated memory to hold graphics data temporarily during rendering. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 1: IT Fundamentals

**QUESTION 76**

Which of the following software solutions ensures that programs running simultaneously on a workstation do not utilize the same physical memory?

- A. Disk optimizer
- B. Operating system
- C. Type 1 hypervisor
- D. Anti-malware



**Correct Answer: B**

**Section:**

**Explanation:**

The operating system is the software solution that ensures that programs running simultaneously on a workstation do not utilize the same physical memory. The operating system is the software that manages the hardware and software resources of a computer, such as the CPU, memory, disk, network, and applications. The operating system uses memory management techniques, such as virtual memory, paging, and segmentation, to allocate and deallocate physical memory to programs as needed, and to prevent memory conflicts or errors. A disk optimizer is a software solution that improves the performance of a disk drive by rearranging the files and free space on the disk to reduce fragmentation and increase access speed. A disk optimizer does not affect the physical memory usage of programs. A type 1 hypervisor is a software solution that creates and runs multiple virtual machines on a single physical machine by directly controlling the hardware resources. A type 1 hypervisor does not ensure that programs running simultaneously on a workstation do not utilize the same physical memory, but rather that virtual machines running simultaneously on a physical machine do not utilize the same hardware resources. An anti-malware is a software solution that protects a computer from malicious software, such as viruses, worms, trojans, spyware, or ransomware. An anti-malware does not ensure that programs running simultaneously on a workstation do not utilize the same physical memory, but rather that programs running on a workstation do not contain malicious code or behavior. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 4: Operating System Fundamentals

**QUESTION 77**

Which of the following terms best describes the outcome of a text message that is encrypted from its original form?

- A. Cipher
- B. Vector
- C. Plain
- D. Algorithm

**Correct Answer: A**

**Section:**

**Explanation:**

The outcome of a text message that is encrypted from its original form is best described as a cipher. A cipher is a text message that has been transformed into an unreadable or unintelligible form by using an encryption algorithm and a key. Encryption is the process of converting plain text into cipher text to protect the confidentiality, integrity, and authenticity of the message. A vector is not a term used in encryption, but it may refer to a data structure that can store multiple values of the same data type in an ordered sequence. Plain is not a term used in encryption, but it may refer to the original or unencrypted form of a text message. An algorithm is not the outcome of encryption, but it is the method or procedure that is used to perform encryption or decryption. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 7: Security Concepts1

**QUESTION 78**

Which of the following is most likely to disclose the data collection practices of an application?

- A. README.txt file
- B. User's guide
- C. EULA
- D. Vendor website

**Correct Answer: C**

**Section:**

**Explanation:**

The most likely source that will disclose the data collection practices of an application is the EULA. EULA stands for End User License Agreement, which is a legal contract between the software vendor and the user that defines the terms and conditions for using the software. The EULA often includes information about how the software collects, uses, stores, and shares user data, as well as what rights and responsibilities the user has regarding their data. A README.txt file is a text file that accompanies a software package and provides information about how to install, configure, or use the software. A README.txt file may not disclose the data collection practices of an application, unless it is explicitly stated by the vendor. A user's guide is a document that provides instructions and tips on how to use a software application effectively. A user's guide may not disclose the data collection practices of an application, unless it is explicitly stated by the vendor. A vendor website is a web page that provides information about a software vendor and their products or services. A vendor website may disclose the data collection practices of an application, but it may not be as detailed or accessible as the EULA. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 8: Software Development Concepts1

**QUESTION 79**

An attacker is using subversive tactics to gain the trust of a target in order to obtain entry to a location or access to confidential information. Which of the following best describes this scenario?

- A. Phishing attack
- B. Social engineering
- C. On-path attack
- D. Eavesdropping

**Correct Answer: B**

**Section:**

**Explanation:**

The scenario where an attacker is using subversive tactics to gain the trust of a target in order to obtain entry to a location or access to confidential information is best described as social engineering. Social engineering is a type of attack that exploits human psychology and behavior to manipulate people into performing actions or revealing information that benefits the attacker. Social engineering can take various forms, such as phishing, vishing, baiting, quid pro quo, pretexting, or tailgating. Phishing attack is a type of social engineering attack that involves 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. On-path attack is a type of network attack that involves intercepting or modifying data packets that are transmitted between two parties on a network. Eavesdropping is a type of network attack that involves listening to or capturing data packets that are transmitted between two parties on a network. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 7: Security Concepts1

**QUESTION 80**

A technician travels to a data center to review specifications on a new project. Which of the following is the technician most likely to see pertaining to types of operating systems?

- A. Mobile device OS



- B. Workstation OS
- C. Embedded OS
- D. Hypervisor OS

**Correct Answer: D**

**Section:**

**Explanation:**

A hypervisor OS is the most likely type of operating system that a technician would see pertaining to a data center. A hypervisor OS is an operating system that runs on a host machine and allows multiple guest operating systems to run on virtual machines. A hypervisor OS enables efficient utilization of hardware resources, scalability, and isolation of different workloads in a data center. Examples of hypervisor OS include VMware ESXi, Microsoft Hyper-V, and Citrix XenServer. A mobile device OS is an operating system that runs on a smartphone, tablet, or other portable device. A mobile device OS provides features such as touch screen, wireless connectivity, camera, GPS, and app store. Examples of mobile device OS include Android, iOS, and Windows Phone. A workstation OS is an operating system that runs on a desktop or laptop computer. A workstation OS provides features such as graphical user interface, file management, multitasking, and networking. Examples of workstation OS include Windows 10, macOS, and Linux. An embedded OS is an operating system that runs on a special-purpose device or system that performs a specific function. An embedded OS provides features such as real-time performance, low power consumption, and minimal user interface. Examples of embedded OS include Windows Embedded, Linux Embedded, and QNX. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 4: Operating System Fundamentals1

#### QUESTION 81

The process of determining the source of an issue during troubleshooting is called:

- A. researching.
- B. sourcing.
- C. diagnosing.
- D. triaging.

**Correct Answer: C**

**Section:**

**Explanation:**

The process of determining the source of an issue during troubleshooting is called diagnosing. Diagnosing is the third step in the troubleshooting process, after gathering information and determining if anything has changed. Diagnosing involves analyzing the symptoms and possible causes of the problem, testing hypotheses, and identifying the root cause of the problem. Researching is the process of finding relevant information or resources to help solve a problem during troubleshooting. Researching can be done before or after diagnosing, depending on the availability and reliability of the information or resources. Sourcing is not a term used in troubleshooting, but it may refer to the process of finding or obtaining materials or components for a product or service. Triaging is not a term used in troubleshooting, but it may refer to the process of prioritizing problems or tasks based on their urgency or importance. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 2: IT Concepts and Terminology1

#### QUESTION 82

A corporate network just implemented a 60-day password-warning banner. Which of the following is most likely going to happen in 60 days?

- A. Password reset
- B. Password expiration
- C. Password reuse
- D. Password Implementation

**Correct Answer: B**

**Section:**

**Explanation:**

The most likely thing that will happen in 60 days after implementing a 60-day password-warning banner is password expiration. A password-warning banner is a message that appears on the screen when a user logs in to a system or network, informing them of how many days are left before their password expires. A password expiration policy is a security measure that requires users to change their passwords periodically, usually every 30 to 90 days. This policy helps to prevent unauthorized access or compromise of passwords by hackers or malicious insiders. Password reset is the process of changing or creating a new password for a user account when the user forgets their password or wants to change it for security reasons. Password reset can be done by the user themselves or by an administrator, depending on the system or network settings. Password reset does not necessarily happen in 60 days after implementing a 60-day password-warning banner, unless the user forgets their password or chooses to change it before it expires. Password reuse is the practice of using the same password for



multiple user accounts or systems. Password reuse is not recommended as it increases the risk of compromise if one of the accounts or systems is breached by hackers or malicious insiders. Password reuse does not necessarily happen in 60 days after implementing a 60-day password-warning banner, unless the user chooses to use their old password for their new password after it expires. Password implementation is not a term used in security, but it may refer to the process of creating or enforcing password policies for user accounts or systems. Password implementation does not necessarily happen in 60 days after implementing a 60-day passwordwarning banner, unless there are changes in the password policies that require users to comply with them. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 7: Security Concepts1

### QUESTION 83

Given this example:

FEB8077911AB12TB

Which of the following is being represented?

- A. MAC address
- B. String
- C. Hexadecimal
- D. Unicode

**Correct Answer: C**

**Section:**

**Explanation:**

The example FEB8077911AB12TB is being represented as hexadecimal. Hexadecimal is a number system that uses 16 symbols to represent values from 0 to 15. The symbols are 0-9 for values from 0 to 9, and A-F for values from 10 to 15. Hexadecimal is often used to represent binary data in a more compact and readable form, such as MAC addresses, color codes, or memory addresses. A MAC address is a unique identifier for a network interface card (NIC) that consists of 12 hexadecimal digits separated by colons or dashes. A string is a sequence of characters that can be used to store text or other data types. A string can contain hexadecimal digits, but it can also contain other symbols or characters. Unicode is a standard for encoding characters from different languages and scripts into binary data. Unicode can use hexadecimal digits to represent characters, but it also requires other symbols or codes to indicate the encoding scheme. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 2: IT Concepts and Terminology1

### QUESTION 84

Given the following lines:

```
If child 1 is fed AND child 2 is fed,  
    echo "dinner is complete!" and set spouse to satisfied.  
else  
    echo "please feed the kids!"
```

This is an example of:

- A. a flowchart.
- B. looping.
- C. an assembly.
- D. pseudocode.

**Correct Answer: D**

**Section:**

**Explanation:**

The example given is an example of pseudocode. Pseudocode is a way of writing the logic of a program or an algorithm in a simplified and informal language that resembles natural language or code, but does not follow the syntax or rules of a specific programming language. Pseudocode is often used to plan, design, or explain a program or an algorithm before writing the actual code. A flowchart is a way of representing the logic of a program or an algorithm using symbols and arrows that show the sequence of steps and decisions. A flowchart is often used to visualize, analyze, or document a program or an algorithm. Looping is a way of repeating a set of statements or actions in a program or an algorithm until a certain condition is met. Looping is often used to perform iterative tasks, such as counting, searching, or sorting. An assembly is a way of writing the instructions of a program or an algorithm in a low-level language that corresponds to the machine code of a specific processor. An assembly is often used to create programs that run fast and efficiently, but it is difficult to read and write. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 8: Software Development Concepts1

**QUESTION 85**

A systems administrator is setting up an output device that supports both USB and network capability. Which of the following devices is the administrator most likely installing?

- A. Scanner
- B. Camera
- C. SSD
- D. Printer

**Correct Answer: D**

**Section:**

**Explanation:**

The device that the administrator is most likely installing is a printer. A printer is an output device that supports both USB and network capability, meaning that it can be connected to a computer or a network using either a USB cable or a wireless or wired network connection. A printer can produce hard copies of documents, images, or other data on paper or other media. A scanner is an input device that supports both USB and network capability, meaning that it can be connected to a computer or a network using either a USB cable or a wireless or wired network connection. A scanner can capture images or text from paper or other media and convert them into digital data. A camera is an input device that supports both USB and network capability, meaning that it can be connected to a computer or a network using either a USB cable or a wireless or wired network connection. A camera can capture images or videos and store them as digital data. An SSD stands for Solid State Drive, which is a type of storage device that supports both USB and network capability, meaning that it can be connected to a computer or a network using either a USB cable or a wireless or wired network connection. An SSD uses flash memory chips to store data persistently even when the power is turned off. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 1: IT Fundamentals1

**QUESTION 86**

Given the following information:

Table A

| ID | Name |
|----|------|
| 01 | John |
| 02 | Ann  |

Table B

| ID | Address            | Phone number |
|----|--------------------|--------------|
| 01 | 5555 John Lane     | 555-555-1234 |
| 02 | 7777 Ann Boulevard | 777-777-4321 |

Which of the following is descriptive of both tables?

- A. The database uses a flat file structure.
- B. The database uses SQL.
- C. The data most likely exists within a relational database.
- D. The data is corrupted and is being shown as two sets.

**Correct Answer: C**

**Section:**

**Explanation:**

The description that best fits both tables is that the data most likely exists within a relational database. A relational database is a type of database that organizes data into tables, which consist of rows and columns. Each table represents an entity, such as customers, orders, products, etc., and each row represents an instance of that entity, such as customer 01, order 02, product 03, etc. Each column represents an attribute of that entity, such as name, address, phone number, etc. Tables can be related to each other by using common columns, such as ID, which can act as primary keys or foreign keys. A primary key is a column that uniquely identifies each row in a table, such as ID in Table A and Table B. A foreign key is a column that references the primary key of another table, such as ID in Table B referencing ID in Table A. A relational database uses SQL (Structured Query Language) to create, manipulate, and query data in tables. The database does not use a flat file structure, which is another type of database that stores data in plain text files with fixed fields and records. A flat file structure does not support relationships between tables or SQL queries. The data is not corrupted and shown as two sets, but rather separated into two tables for normalization purposes. Normalization is the process of organizing data in tables to reduce redundancy and improve efficiency and integrity. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 6: Database Fundamentals1

**QUESTION 87**

Which of the following actions is most likely associated with database use?

- A. Creating diagrams
- B. Querying
- C. File sharing
- D. Printing

**Correct Answer: B**

**Section:**

**Explanation:**

The action that is most likely associated with database use is querying. Querying is the process of retrieving data from a database based on certain criteria or conditions. Querying allows users to access specific information from large amounts of data stored in tables. Querying can be done using SQL (Structured Query Language), which is a standard language for interacting with relational databases. SQL queries can perform various operations, such as selecting, inserting, updating, deleting, or joining data from tables. Creating diagrams is not an action that is associated with database use, but rather with software development or design. Creating diagrams can help visualize the structure, logic, or flow of a program or an algorithm. Examples of diagrams include flowcharts, UML diagrams, ER diagrams, etc. File sharing is not an action that is associated with database use, but rather with network use. File sharing is the process of allowing users to access or transfer files over a network. File sharing can be done using various protocols, such as FTP, SMB, NFS, etc. Printing is not an action that is associated with database use, but rather with output device use. Printing is the process of producing hard copies of documents, images, or other data on paper or other media using a printer. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 6: Database Fundamentals1

#### QUESTION 88

A programming construct that is most beneficial for organizing a program's data and behavior is:

- A. an object.
- B. a licensing agreement.
- C. a query.
- D. a constant.



**Correct Answer: A**

**Section:**

**Explanation:**

The programming construct that is most beneficial for organizing a program's data and behavior is an object. An object is a programming construct that encapsulates data and behavior into a single unit. An object can have attributes, which are variables that store data related to the object, and methods, which are functions that perform actions related to the object. An object can be created from a class, which is a blueprint or template that defines the attributes and methods of the object. An object can also inherit attributes and methods from another class, which is called a superclass or a parent class. An object can also override or modify attributes and methods inherited from another class, which is called a subclass or a child class. An object can also interact with other objects by sending or receiving messages. Object-oriented programming (OOP) is a paradigm that uses objects as the main building blocks of a program. OOP allows programmers to create modular, reusable, and maintainable code that models real-world entities and scenarios. A licensing agreement is not a programming construct, but rather a legal document that defines the terms and conditions for using a software product or service. A licensing agreement can specify the rights and responsibilities of the software vendor and the user, such as the scope of use, the duration of use, the payment terms, the warranty terms, etc. A query is not a programming construct, but rather a statement that retrieves data from a database based on certain criteria or conditions. A query can be written using SQL (Structured Query Language), which is a standard language for interacting with relational databases.

A constant is not a programming construct that organizes data and behavior, but rather a variable that stores a single value of any data type that does not change during the execution of a program. A constant can be used to store values that are fixed or known in advance, such as  $\pi = 3.14$  or  $TAX\_RATE = 0.15$ . References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 8: Software Development Concepts1

#### QUESTION 89

A help desk technician loads a browser-based ticketing system, but when navigating to the queue, the technician realizes that another employee's queue is being accessed. Which of the following explains the issue?

- A. The previous user's session is cached.
- B. The proxy settings were misconfigured.
- C. The application is not compatible with the browser.
- D. The browser was opened in private mode.

**Correct Answer: A**

**Section:**

**Explanation:**

The issue that explains why the technician is accessing another employee's queue is that the previous user's session is cached. Caching is the process of storing data temporarily in a memory or disk for faster access or reuse. Caching can improve the performance and efficiency of a browser-based application, but it can also cause security or privacy issues if the data is not cleared or updated properly. The previous user's session may have been cached by the browser or the application, and the technician may have accessed the same URL or credentials without logging out or clearing the cache. The proxy settings were not misconfigured, as this would not affect the access to another employee's queue, but rather the access to the internet or the application server. The proxy settings are the configuration options that determine how a browser connects to a proxy server, which is an intermediary server that acts as a gateway between the browser and the internet or the application server. The proxy server can provide security, anonymity, or caching functions for the browser. The application is not incompatible with the browser, as this would not affect the access to another employee's queue, but rather the functionality or appearance of the application. The application compatibility is the degree to which an application works correctly and efficiently with a specific browser or operating system. The browser was not opened in private mode, as this would not affect the access to another employee's queue, but rather prevent the caching of data. The private mode is a feature that allows a browser to browse the internet without storing any browsing history, cookies, cache, or other data on the device. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 5: Infrastructure Concepts1

#### QUESTION 90

Employees must use a badge to enter and exit the building. Each time the badge is used, a log entry is created and stored to record who has entered and exited the building. Which of the following best describes what the log entries provide?

- A. Automation
- B. Accounting
- C. Authorization
- D. Authentication

**Correct Answer: B**

**Section:**

**Explanation:**

The log entries that are created and stored when employees use their badges to enter and exit the building provide accounting. Accounting is a security function that records and tracks user activities and events on a system or network. Accounting can provide evidence of user actions, such as authentication, authorization, access, modification, or deletion of data or resources. Accounting can also provide information for billing, auditing, or reporting purposes. Accounting can be implemented using log files, audit trails, or monitoring tools. Automation is not a security function, but rather a process of using technology to perform tasks or operations without human intervention. Automation can improve productivity, efficiency, accuracy, or reliability of a system or network. Automation can be implemented using scripts, programs, or tools. Authorization is not a security function that records and tracks user activities and events, but rather a security function that grants or denies user access to data or resources based on their identity and permissions. Authorization can ensure that users only access what they are allowed to access on a system or network. Authorization can be implemented using access control lists (ACLs), role-based access control (RBAC), or mandatory access control (MAC). Authentication is not a security function that records and tracks user activities and events, but rather a security function that verifies user identity based on credentials, such as passwords, tokens, biometrics, etc. Authentication can ensure that users are who they claim to be on a system or network. Authentication can be implemented using single-factor authentication (SFA), multi-factor authentication (MFA), or single sign-on (SSO). References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 7: Security Concepts1

#### QUESTION 91

A technician has received multiple reports about a media player, which is located in a waiting room, turning on and off at various times of the day. The technician replaces the power adapter and turns the player back on. Which of the following should the technician do next?

- A. Verify there is full system functionality.
- B. Document the findings/lessons learned.
- C. Implement the solution.
- D. Research the knowledge base.

**Correct Answer: A**

**Section:**

**Explanation:**

The next step that the technician should do after replacing the power adapter and turning on the media player is verifying there is full system functionality. Verifying there is full system functionality is the fourth step in the troubleshooting process, after diagnosing and resolving the problem. Verifying there is full system functionality involves testing and confirming that the problem has been fixed and that no new problems have been

introduced by the solution. Documenting the findings/lessons learned is not the next step after replacing the power adapter and turning on the media player, but rather the last step in the troubleshooting process, after verifying there is full system functionality. Documenting the findings/lessons learned involves creating a record of the problem and its solution for future reference or training purposes. Implementing the solution is not the next step after replacing the power adapter and turning on the media player, but rather part of resolving the problem in the third step of troubleshooting process. Implementing solution involves applying the chosen solution to fix problem. Researching knowledge base is not next step after replacing power adapter and turning on media player, but rather an optional step that can be done before diagnosing problem in troubleshooting process. Researching knowledge base involves finding relevant information resources to help solve problem. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 2: IT Concepts and Terminology

#### QUESTION 92

Which of the following is an advantage of a flat file?

- A. Variety of data
- B. Scalability
- C. Portability
- D. Multiple concurrent users

**Correct Answer: C**

**Section:**

**Explanation:**

The advantage of a flat file is portability. Portability is the ability of a file or a system to be easily transferred or used on different platforms or devices. A flat file is a type of file that stores data in plain text format with fixed fields and records. A flat file can be easily transferred or used on different platforms or devices, as it does not require any special software or hardware to read or write the data. A flat file can also be easily imported or exported by various applications or databases. A flat file does not have a variety of data, as it only stores data of one type or entity, such as customers, products, or orders. A flat file does not support relationships, queries, or calculations on the data. A flat file does not have scalability, as it has limitations on the size and complexity of the data that it can store. A flat file can become large, slow, or redundant as more data is added. A flat file does not support multiple concurrent users, as it does not have any locking or transaction mechanisms to prevent data conflicts or errors. A flat file can only be accessed by one user at a time, or by multiple users in read-only mode. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 6: Database Fundamentals

#### QUESTION 93

Which of the following describes the concept of a database record?

- A. A collection of rows, columns, and constraints
- B. A collection of fields about the same object
- C. A collection of schemas within the same database
- D. A collection of tables within different schemas

**Correct Answer: B**

**Section:**

**Explanation:**

The concept of a database record is best described as a collection of fields about the same object. A database record is a row in a table that represents an instance of an entity, such as a customer, an order, a product, etc. A database record consists of one or more fields that store data about the attributes of the entity, such as name, address, phone number, quantity, price, etc. A database record can be uniquely identified by a primary key, which is a field or a combination of fields that do not repeat in the table. A collection of rows, columns, and constraints is not the concept of a database record, but rather the concept of a database table. A database table is a structure that organizes data into rows and columns. Each row represents a record, and each column represents a field. A database table can have constraints that define the rules and restrictions for the data in the table, such as primary keys, foreign keys, unique keys, check constraints, etc. A collection of schemas within the same database is not the concept of a database record, but rather the concept of a database instance. A database instance is a set of memory structures and processes that manage and access a database. A database instance can contain one or more schemas, which are collections of objects that belong to a user or an application in the database, such as tables, views, indexes, etc. A collection of tables within different schemas is not the concept of a database record, but rather the concept of a database relationship. A database relationship is a connection between two tables that share common data. A database relationship can be established by using foreign keys, which are fields that reference the primary keys of another table. A database relationship can be one-to-one, one-to-many, or many-to-many depending on how many records in each table are related to each other. References: The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 6: Database Fundamentals

#### QUESTION 94

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 95

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 96

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 97

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 98

Which of the following would MOST likely use an ARM processor?

- A. Laptop
- B. Tablet
- C. Workstation
- D. Server

**Correct Answer: B**

**Section:**

#### QUESTION 99

A systems administrator wants to run a script at a certain time every day. Which of the following is the BEST way to achieve this?

- A. Perform process management.
- B. Perform task scheduling.
- C. Set the system date and time.
- D. Set a reminder to run the script.

**Correct Answer: B**

**Section:**

#### QUESTION 100

Which of the following would indicate the FASTEST processor speed?

- A. 3.6GHz
- B. 3.6MHz





- C. 3.6Mbps
- D. 3.6Gbps

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

**QUESTION 101**

A gaming console needs to allow for inbound connectivity on a home network to facilitate chat functions. Which of the following devices is a user MOST likely to configure to allow this?

- A. Cable modem
- B. Wireless router
- C. Access point
- D. Network switch

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

**QUESTION 102**

The computer language that is closest to machine code is:

- A. query language
- B. scripting language
- C. markup language
- D. assembly language

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

**QUESTION 103**

Employee information is stored in a database. Which of the following BEST describes where all of an employee's information is stored?

- A. Record
- B. Report
- C. Column
- D. Procedure

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

**QUESTION 104**

Which of the following is an example of an interpreted language?

- A. C++
- B. Java
- C. Python
- D. Go



**Correct Answer: C**

**Section:**

**QUESTION 105**

An employee's laptop does not connect to the Internet when it is used in a coffee shop. Which of the following is the MOST likely cause?

- A. Script blocker
- B. Proxy settings
- C. Private browsing
- D. Full browser cache

**Correct Answer: B**

**Section:**

**QUESTION 106**

Which of the following filesystems would a Linux computer MOST likely use?

- A. HFS
- B. NTFS
- C. FAT32
- D. ext4

**Correct Answer: D**

**Section:**

**QUESTION 107**

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 108**

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 109**

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 110**

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 111**

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 112**

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 113**

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 114**

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 115**

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 116**

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 117**

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 118**

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 119**

A programmer chooses a database for a new application that needs to store information, including dates, times, names, and amounts. Which of the following database features is this an example of?

- A. Concurrency
- B. Speed
- C. Scalability
- D. Variety



**Correct Answer: D**

**Section:**

**Explanation:**

Variety is the database feature that refers to the ability to store different types of data, such as dates, times, names, and amounts. A database that supports variety can handle diverse and complex data formats, which is useful for applications that need to store information from various sources or domains. Concurrency, speed, and scalability are also important database features, but they are not directly related to the types of data that can be stored. Reference: CompTIA IT Fundamentals+ FC0-U61 Cert Guide, Chapter 25: Database Concepts, page 481; CompTIA IT Fundamentals (ITF+) Study Guide, Chapter 7: Database Fundamentals, page 173.

**QUESTION 120**

Which of the following defines a reusable value that can be reassigned?

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

**Correct Answer: B**

**Section:**

**Explanation:**

A variable is a named container that can store a value of a certain data type, such as a number, a string, or a Boolean. A variable can be reused throughout a program by referring to its name, and its value can be changed or

reassigned as needed. For example, in the following Python code, x is a variable that is assigned the value 10, then reassigned the value 20:

A method is a set of instructions that performs a specific task, usually associated with an object or a class. A method can take parameters as inputs and return a value as output, but it cannot be reassigned to another value.

For example, in the following Python code, print is a built-in method that takes a parameter and prints it to the console, but it cannot be assigned to another value:

A constant is a named container that can store a value of a certain data type, but unlike a variable, its value cannot be changed or reassigned once it is defined. Constants are usually used to store values that are fixed or constant, such as mathematical constants, physical constants, or configuration settings. For example, in the following Python code, PI is a constant that is assigned the value 3.14, and it cannot be reassigned to another value:

A function is a named block of code that performs a specific task, usually independent of an object or a class. A function can take parameters as inputs and return a value as output, but it cannot be reassigned to another value. For example, in the following Python code, add is a user-defined function that takes two parameters and returns their sum, but it cannot be assigned to another value:

Therefore, the correct answer is B. Variable, as it defines a reusable value that can be reassigned.

CompTIA IT Fundamentals+ (ITF+) Certification Exam Objectives, page 16, section 4.1

CompTIA IT Fundamentals+ (ITF+) Study Guide, page 207, section 8.1

CompTIA IT Fundamentals+ (ITF+) All-in-One Exam Guide, Second Edition, page 301, chapter 9

#### QUESTION 121

Which of the following would be the most cost-effective method to increase availability?

- A. Redundant equipment
- B. Disaster recovery site
- C. Continuity plan
- D. Scheduled maintenance

**Correct Answer: D**

**Section:**

**Explanation:**

Availability is the measure of how accessible a system or service is to its users. Availability can be affected by various factors, such as hardware failures, software bugs, network outages, natural disasters, human errors, and malicious attacks. To improve availability, organizations can use various methods, such as redundant equipment, disaster recovery sites, continuity plans, and scheduled maintenance. However, not all methods have the same cost-effectiveness.

Redundant equipment is the practice of having backup or spare components that can take over the function of a failed component. This can improve availability by reducing the impact of hardware failures, but it also increases the cost of purchasing, installing, and maintaining the extra equipment.

Disaster recovery site is a location where an organization can resume its operations after a major disruption, such as a fire, flood, or earthquake. This can improve availability by allowing the organization to continue providing its services in the event of a catastrophic event, but it also requires a significant investment in infrastructure, security, and data replication.

Continuity plan is a document that outlines the procedures and resources needed to restore normal operations after a disruption. This can improve availability by ensuring that the organization has a clear and consistent plan to follow in case of an emergency, but it also requires time and effort to develop, test, and update the plan.

Scheduled maintenance is the practice of performing regular checks and repairs on the system or service to prevent or fix potential issues. This can improve availability by reducing the likelihood and severity of failures, but it also requires planning, coordination, and downtime.

Among these methods, scheduled maintenance is the most cost-effective, because it does not require additional equipment, infrastructure, or data replication, and it can prevent or mitigate many common causes of unavailability. Scheduled maintenance can also help extend the lifespan and performance of the existing components, reducing the need for replacements or upgrades.

CompTIA IT Fundamentals (ITF+) Certification Guide, page 8

Service Availability: Calculations and Metrics, Five 9s, and Best Practices, section "What is Availability?"

#### QUESTION 122

Which of the following language types most likely controls the way a web page looks?

- A. Assembly language
- B. Markup language
- C. Compiled language
- D. Scripted language

**Correct Answer: B**

**Section:**

**Explanation:**

A markup language is a type of language that uses tags or symbols to define the structure and appearance of web content. HTML is the most common markup language used for creating web pages. HTML tags can specify how the text, images, links, and other elements are displayed by the web browser. Other markup languages include XML, which stores structured data using customizable tags, and Markdown, which simplifies the formatting of text documents. Reference: HTML: HyperText Markup Language | MDN, Markup Language Definition - What is a markup language? - TechTerms.com

**QUESTION 123**

Which of the following commands would most likely be used to add data to an existing database table?

- A. SELECT
- B. INSERT
- C. ALTER
- D. CREATE

**Correct Answer: B**

**Section:**

**Explanation:**

The INSERT command is used to add new records or rows to an existing database table. It specifies the table name, the column names, and the values to be inserted. For example, INSERT INTO Customers (Name, Age, City) VALUES ('Ali', 25, 'Lahore'); would add a new row to the Customers table with the given values for Name, Age, and City. The SELECT command is used to query or retrieve data from a database table, not to add data. The ALTER command is used to modify the structure or definition of a database table, such as adding, deleting, or renaming columns. The CREATE command is used to make a new database object, such as a table, a view, or an index, not to add data to an existing table. Reference: Interfacing with Databases | CompTIA IT Fundamentals FC0-U61 | 5.3, Get the Building Blocks of IT With the New CompTIA IT Fundamentals+

**QUESTION 124**

A small company has authorized an allowance for employees to purchase their own work computers. The administrator has noticed a sizable increase in network traffic following the arrival of the new computers. Which of the following is the most likely reason?

- A. Unnecessary OEM software
- B. Lack of antivirus present
- C. Online gaming activity
- D. Firewalls are not configured

**Correct Answer: C**

**Section:**

**Explanation:**

Online gaming activity is the most likely reason for the increase in network traffic because it consumes a lot of bandwidth and data. Online games often require constant communication with servers and other players, which can generate a lot of network traffic. Unnecessary OEM software, lack of antivirus, and firewalls are not configured are less likely to cause such a significant increase in network traffic, as they are either one-time or periodic processes that do not require as much data transfer as online gaming. Reference:

CompTIA IT Fundamentals FC0-U61 Certification Study Guide, page 101, section 2.4: "Online gaming can consume a lot of bandwidth and data."

CompTIA ITF+ Practice Test, question 221: "Online gaming activity is the correct answer."

**QUESTION 125**

Users are required to install a certificate in order to access commercial web pages through a corporate proxy server. Which of the following Windows Control Panel applets would enable users to verify the needed certificate is installed?

- A. Network and Sharing Center
- B. System
- C. Programs and Features
- D. Internet Options

**Correct Answer: D**

**Section:**

**Explanation:**

A certificate is a digital document that verifies the identity and authenticity of a website or a server. Certificates are issued by trusted authorities, such as Certificate Authorities (CAs), and are used to establish secure connections between clients and servers, such as when browsing the web or accessing online services. Certificates can also be used to encrypt and decrypt data, sign and verify documents, and authenticate users and devices. To access commercial web pages through a corporate proxy server, users are required to install a certificate that is trusted by the proxy server. This certificate can be obtained from the proxy server administrator or from the website itself. To verify that the needed certificate is installed on a Windows computer, users can use the Internet Options applet in the Control Panel. The Internet Options applet allows users to configure various settings related to internet browsing, such as security, privacy, connections, and content. To view and manage certificates, users can follow these steps:

Open the Control Panel and click on Internet Options.

In the Internet Options window, click on the Content tab.

In the Content tab, click on the Certificates button.

In the Certificates window, users can see the list of certificates that are installed on their computer, categorized by purpose, such as personal, trusted root, intermediate, or untrusted. Users can also import, export, remove, or view the details of each certificate.

The correct answer is D. Internet Options, as it is the applet that enables users to verify the needed certificate is installed.

CompTIA IT Fundamentals+ (ITF+) Certification Exam Objectives, page 17, section 4.2

CompTIA IT Fundamentals+ (ITF+) Study Guide, page 217, section 8.3

CompTIA IT Fundamentals+ (ITF+) All-in-One Exam Guide, Second Edition, page 315, chapter 10

#### QUESTION 126

Given the following pseudocode:

```
Initialize variable NAME to ""
Initialize variable TIME to "NOON"
Initialize variable DATE to "Monday"
If TIME == "NOON"
    Set variable NAME to "foo"
Else If TIME == "MIDNIGHT"
    Set variable NAME to "bar"
If DATE == "Monday"
    Set variable NAME to NAME concatenated with "sad"
Else If DATE == "Friday"
    Set variable NAME to NAME concatenated with "happy"
Print NAME
```

Which of the following would be the output of the program?

- A. foohappy
- B. barsad
- C. foosad
- D. barhappy

**Correct Answer: C**

**Section:**

**Explanation:**

The pseudocode given in the question is a program that assigns different values to the variable NAME based on the values of the variables TIME and DATE. The program starts by initializing the variables NAME, TIME, and DATE with empty strings, "NOON", and "Monday" respectively. Then, it uses two nested IF-ELSE statements to check the values of TIME and DATE and modify the value of NAME accordingly. The first IF-ELSE statement checks if TIME is equal to "NOON". If it is, it sets NAME to "foo". If it is not, it checks if TIME is equal to "MIDNIGHT". If it is, it sets NAME to "bar". If it is not, it does nothing. The second IF-ELSE statement checks if DATE is equal to "Monday". If it is, it concatenates "sad" to the end of NAME. If it is not, it checks if DATE is equal to "Friday". If it is, it concatenates "happy" to the end of NAME. If it is not, it does nothing. Finally, the program prints the value of NAME. Since the values of TIME and DATE are "NOON" and "Monday" respectively, the program will set NAME to "foo" in the first IF-ELSE statement and then add "sad" to it in the second IF-ELSE statement. Therefore, the output of the program will be "foosad". Reference: CompTIA IT Fundamentals (ITF+) Certification Guide, pages 216-217. Pseudocode - Designing an algorithm - KS3 Computer Science ... - BBC.





**QUESTION 127**

A flatbed scanner that is connected to a laptop is used to convert photographic prints to digital images for reproduction on a color printer. Which of the following is considered the input device for this process?

- A. Laptop hard drive
- B. Laptop keyboard
- C. Photographic prints
- D. Flatbed scanner
- E. Color printer

**Correct Answer: D**

**Section:**

**Explanation:**

An input device is a hardware component that allows users to enter data or commands into a computer system. A flatbed scanner is an input device that scans documents or images and converts them into digital data that can be stored, edited, or printed. A flatbed scanner is connected to a laptop via a peripheral device interface, such as USB or Bluetooth. A laptop hard drive, a laptop keyboard, and a color printer are not input devices, but storage, input, and output devices respectively. Photographic prints are not devices at all, but physical objects that can be scanned by an input device. Reference: Chapter 8 I/O: Input/Output Device Interfaces - CompTIA IT Fundamentals+ (ITF+) Study Guide: Exam FC0-U61, Second Edition, CompTIA IT Fundamentals (ITF+) Certification Exam Objectives, CompTIA IT Fundamentals+ (Exam FC0-U61) Module 3 / Unit 2 / Using Device Interfaces

**QUESTION 128**

Which of the following best protects data in transit?

- A. Backup tapes
- B. Encrypted flash drive
- C. VPN connection
- D. FTP

**Correct Answer: C**

**Section:**

**Explanation:**

A VPN (Virtual Private Network) connection is a secure way of transmitting data over the internet by creating an encrypted tunnel between the sender and the receiver. This protects data in transit from being intercepted, modified, or stolen by unauthorized parties. VPNs can also mask the identity and location of the users, adding another layer of privacy and security. Backup tapes, encrypted flash drives, and FTP (File Transfer Protocol) are methods of storing or transferring data, but they do not protect data in transit as effectively as VPNs. Reference:

Chapter 35 Explain the Basics of Networking - CompTIA IT Fundamentals+ FC0-U61 Cert Guide

CompTIA IT Fundamentals+ Certification Exam Test Questions With Answers ...

CompTIA IT Fundamentals+ (ITF+) Study Guide: Exam FC0-U61

**QUESTION 129**

A user installs a wireless router and opens a browser to modify the settings. Which of the following installation types does this describe?

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

**Correct Answer: A**

**Section:**

**Explanation:**

A web-based installation is a type of installation that uses a web browser to access and configure the settings of a device, such as a wireless router. A web-based installation typically requires the user to enter the IP address of the device in the browser's address bar, and then log in with a default username and password. The user can then modify the settings of the device according to their preferences and needs. A web-based installation is



different from other types of installations, such as plug-and-play, driver-based, and server-based, which do not use a web browser to configure the device. Reference: How to Set Up a Wireless Router: A Step-By-Step Guide, step 3; CompTIA IT Fundamentals (ITF+) Certification Guide, page 98.

#### QUESTION 130

An application developer needs to test multiple operating systems on one host. Which of the following would be the best choice for the test server?

- A. Type 1 hypervisor OS
- B. Server OS
- C. Embedded OS
- D. Workstation OS

**Correct Answer: A**

**Section:**

**Explanation:**

A type 1 hypervisor OS, also known as a bare-metal hypervisor, is a software layer that runs directly on the hardware and allows multiple operating systems to run as virtual machines on the same host. This is the best choice for the test server because it provides the highest performance, isolation, and flexibility for testing different operating systems. A type 1 hypervisor OS can also support live migration, replication, and backup of virtual machines. A server OS is an operating system that is designed to run on a server, which is a computer that provides services to other computers on a network. A server OS may not support multiple operating systems or virtualization, and may have different hardware and software requirements than a test server. An embedded OS is an operating system that is embedded in a device, such as a smartphone, tablet, or smart TV. An embedded OS is usually optimized for a specific function and hardware, and may not support multiple operating systems or virtualization. A workstation OS is an operating system that is designed to run on a workstation, which is a high-end computer that is used for intensive tasks, such as graphics, video editing, or engineering. A workstation OS may support multiple operating systems or virtualization, but it may not have the same features and capabilities as a type 1 hypervisor OS, such as live migration, replication, and backup of virtual machines. Reference:

CompTIA IT Fundamentals (ITF+) Certification Guide, page 311

Introduction to Hyper-V on Windows 10

#### QUESTION 131

Which of the following shows how many results are possible when evaluating Boolean data types?

- A. Two
- B. Four
- C. Three
- D. Five

**Correct Answer: A**

**Section:**

**Explanation:**

Boolean data types are data types that can only have one of two possible values: true or false. When evaluating Boolean expressions, such as logical operators (AND, OR, NOT) or comparison operators (=, <, >, etc.), the result is also a Boolean value. Therefore, there are only two possible results when evaluating Boolean data types: true or false. Reference:

The Official CompTIA IT Fundamentals (ITF+) Student Guide (Exam FC0-U61), Chapter 6: Software Development Concepts, pages 6-10 to 6-11.

CompTIA IT Fundamentals Certification Training, Module 6: Software Development Concepts, Lesson 2: Programming Concepts.

#### QUESTION 132

A network technician is installing an RJ11 connector inside a home for new internet service. Which of the following network connection types is the technician most likely using?

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



**Correct Answer: B**

**Section:**

**Explanation:**

DSL stands for Digital Subscriber Line, which is a type of broadband internet service that uses copper telephone cabling. A network technician installing an RJ11 connector, which is the standard connector for telephone lines, is most likely using DSL as the network connection type. Fiber, satellite, and cable are other types of internet service, but they use different connectors and cables than RJ11. Reference: CompTIA IT Fundamentals+ (Exam FC0-U61) Module 4 / Unit 2 / Connecting to a Network, page 6; CompTIA Network+ N10-008 Certification Study Guide, Chapter 2: Network Devices and Cabling, page 55.

**QUESTION 133**

When working with storage. 1,000,000MB can also be notated as:

- A. 0.01PB.
- B. 1TB.
- C. 100GB.
- D. 10,000,000KB.

**Correct Answer: B**

**Section:**

**Explanation:**

When working with storage, different units of measurement are used to express the amount of data. The most common units are bytes (B), kilobytes (KB), megabytes (MB), gigabytes (GB), terabytes (TB), and petabytes (PB). Each unit is equal to 1,000 of the previous unit, except for bytes, which are the smallest unit. Therefore, 1,000,000MB can also be notated as 1,000GB or 1TB. The other options are incorrect because they are either too large or too small to represent 1,000,000MB. For example, 0.01PB is equal to 10,000GB or 10TB, which is much larger than 1,000,000MB. Similarly, 100GB is equal to 100,000MB or 0.1TB, which is much smaller than 1,000,000MB. And 10,000,000KB is equal to 10,000MB or 0.01TB, which is also much smaller than 1,000,000MB. Reference:

CompTIA IT Fundamentals FC0-U61 Certification Study Guide, page 71, section 1.6: "A terabyte (TB) is 1,000 gigabytes."

CompTIA ITF+ Practice Test, question 230: "1TB is the correct answer."

