SY0-701 Dumps

CompTIA Security+ Exam

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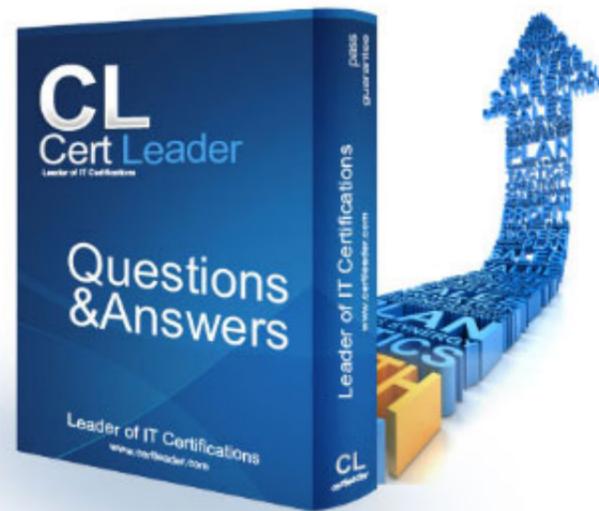
NEW QUESTION 1
A data administrator is configuring authentication for a SaaS application and would like to reduce the number of credentials employees need to maintain. The company prefers to use domain credentials to access new SaaS applications. Which of the following methods would allow this functionality?

A. SSO
B. LEAP
C. MFA
D. PEAP

Answer: A

Explanation:
 SSO stands for single sign-on, which is a method of authentication that allows users to access multiple applications or services with one set of credentials. SSO reduces the number of credentials employees need to maintain and simplifies the login process. SSO can also improve security by reducing the risk of password reuse, phishing, and credential theft. SSO can be implemented using various protocols, such as SAML, OAuth, OpenID Connect, and Kerberos, that enable the exchange of authentication information between different domains or systems. SSO is commonly used for accessing SaaS applications, such as Office 365, Google Workspace, Salesforce, and others, using domain credentials123.
* B. LEAP stands for Lightweight Extensible Authentication Protocol, which is a Cisco proprietary protocol that provides authentication for wireless networks. LEAP is not related to SaaS applications or domain credentials4.
* C. MFA stands for multi-factor authentication, which is a method of authentication that requires users to provide two or more pieces of evidence to prove their identity. MFA can enhance security by adding an extra layer of protection beyond passwords, such as tokens, biometrics, or codes. MFA is not related to SaaS applications or domain credentials, but it can be used in conjunction with SSO.
* D. PEAP stands for Protected Extensible Authentication Protocol, which is a protocol that provides secure authentication for wireless networks. PEAP uses TLS to create an encrypted tunnel between the client and the server, and then uses another authentication method, such as MS-CHAPv2 or EAP-GTC, to verify the user's identity. PEAP is not related to SaaS applications or domain credentials.
References = 1: Security+ (SY0-701) Certification Study Guide | CompTIA IT Certifications 2: What is Single Sign-On (SSO)? - Definition from WhatIs.com 3: Single sign-on - Wikipedia 4: Lightweight Extensible Authentication Protocol - Wikipedia : What is Multi-Factor Authentication (MFA)? - Definition from WhatIs.com : Protected Extensible Authentication Protocol - Wikipedia

NEW QUESTION 2
Which of the following allows for the attribution of messages to individuals?

A. Adaptive identity
B. Non-repudiation
C. Authentication
D. Access logs

Answer: B

Explanation:
 Non-repudiation is the ability to prove that a message or document was sent or signed by a particular person, and that the person cannot deny sending or signing it.
Non-repudiation can be achieved by using cryptographic techniques, such as hashing and digital signatures, that can verify the authenticity and integrity of the message or document. Non-repudiation can be useful for legal, financial, or contractual purposes, as it can provide evidence of the origin and content of the message or document. References = Non- repudiation – CompTIA Security+ SY0-701 – 1.2, CompTIA Security+ SY0-301: 6.1 – Non-repudiation, CompTIA Security+ (SY0-701) Certification Exam Objectives, Domain 1.2, page 2.

NEW QUESTION 3
A security analyst locates a potentially malicious video file on a server and needs to identify both the creation date and the file's creator. Which of the following actions would most likely give the security analyst the information required?

A. Obtain the file's SHA-256 hash.
B. Use hexdump on the file's contents.
C. Check endpoint logs.
D. Query the file's metadata.

Answer: D

Explanation:
 Metadata is data that describes other data, such as its format, origin, creation date, author, and other attributes. Video files, like other types of files, can contain metadata that can provide useful information for forensic analysis. For example, metadata can reveal the camera model, location, date and time, and software used to create or edit the video file. To query the file's metadata, a security analyst can use various tools, such as MediaInfo1, ffprobe2, or hexdump3, to extract and display the metadata from the video file. By querying the file's metadata, the security analyst can most likely identify both the creation date and the file's creator, as well as other relevant information. Obtaining the file's SHA-256 hash, checking endpoint logs, or using hexdump on the file's contents are other possible actions, but they are not the most appropriate to answer the question. The file's SHA-256 hash is a cryptographic value that can be used to verify the integrity or uniqueness of the file, but it does not reveal any information about the file's creation date or creator. Checking endpoint logs can provide some clues about the file's origin or activity, but it may not be reliable or accurate, especially if the logs are tampered with or incomplete. Using hexdump on the file's contents can show the raw binary data of the file, but it may not be easy or feasible to interpret the metadata from the hex output, especially if the file is large or encrypted.
References: 1: How do I get the meta-data of a video file? 2: How to check if an mp4 file contains malware? 3: [Hexdump - Wikipedia]

NEW QUESTION 4
Security controls in a data center are being reviewed to ensure data is properly protected and that human life considerations are included. Which of the following best describes how the controls should be set up?

A. Remote access points should fail closed.
B. Logging controls should fail open.
C. Safety controls should fail open.
D. Logical security controls should fail closed.

Answer: C

Explanation:

Safety controls are security controls that are designed to protect human life and physical assets from harm or damage. Examples of safety controls include fire alarms, sprinklers, emergency exits, backup generators, and surge protectors. Safety controls should fail open, which means that they should remain operational or allow access when a failure or error occurs. Failing open can prevent or minimize the impact of a disaster, such as a fire, flood, earthquake, or power outage, on human life and physical assets. For example, if a fire alarm fails, it should still trigger the sprinklers and unlock the emergency exits, rather than remain silent and locked. Failing open can also ensure that essential services, such as healthcare, transportation, or communication, are available during a crisis. Remote access points, logging controls, and logical security controls are other types of security controls, but they should not fail open in a data center. Remote access points are security controls that allow users or systems to access a network or a system from a remote location, such as a VPN, a web portal, or a wireless access point. Remote access points should fail closed, which means that they should deny access when a failure or error occurs. Failing closed can prevent unauthorized or malicious access to the data center's network or systems, such as by hackers, malware, or rogue devices. Logging controls are security controls that record and monitor the activities and events that occur on a network or a system, such as user actions, system errors, security incidents, or performance metrics. Logging controls should also fail closed, which means that they should stop or suspend the activities or events when a failure or error occurs. Failing closed can prevent data loss, corruption, or tampering, as well as ensure compliance with regulations and standards. Logical security controls are security controls that use software or code to protect data and systems from unauthorized or malicious access, modification, or destruction, such as encryption, authentication, authorization, or firewall. Logical security controls should also fail closed, which means that they should block or restrict access when a failure or error occurs. Failing closed can prevent data breaches, cyberattacks, or logical flaws, as well as ensure confidentiality, integrity, and availability of data and systems. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 142-143, 372-373, 376-377

NEW QUESTION 5
Which of the following describes the process of concealing code or text inside a graphical image?

A. Symmetric encryption
B. Hashing
C. Data masking
D. Steganography

Answer: D

Explanation:

Steganography is the process of hiding information within another medium, such as an image, audio, video, or text file. The hidden information is not visible or noticeable to the casual observer, and can only be extracted by using a specific technique or key. Steganography can be used for various purposes, such as concealing secret messages, watermarking, or evading detection by antivirus software12
References:
1: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 5: Cryptography and PKI, page 233 2: CompTIA Security+ Certification Kit: Exam SY0-701, 7th Edition, Chapter 5: Cryptography and PKI, page 235

NEW QUESTION 6
A business received a small grant to migrate its infrastructure to an off-premises solution. Which of the following should be considered first?

A. Security of cloud providers
B. Cost of implementation
C. Ability of engineers
D. Security of architecture

Answer: D

Explanation:

Security of architecture is the process of designing and implementing a secure infrastructure that meets the business objectives and requirements. Security of architecture should be considered first when migrating to an off-premises solution, such as cloud computing, because it can help to identify and mitigate the potential risks and challenges associated with the migration, such as data security, compliance, availability, scalability, and performance. Security of architecture is different from security of cloud providers, which is the process of evaluating and selecting a trustworthy and reliable cloud service provider that can meet the security and operational needs of the business. Security of architecture is also different from cost of implementation, which is the amount of money required to migrate and maintain the infrastructure in the cloud. Security of architecture is also different from ability of engineers, which is the level of skill and knowledge of the IT staff who are responsible for the migration and management of the cloud infrastructure. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 3491

NEW QUESTION 7
Which of the following provides the details about the terms of a test with a third-party penetration tester?

A. Rules of engagement
B. Supply chain analysis
C. Right to audit clause
D. Due diligence

Answer: A

Explanation:

Rules of engagement are the detailed guidelines and constraints regarding the execution of information security testing, such as penetration testing. They define the scope, objectives, methods, and boundaries of the test, as well as the roles and responsibilities of the testers and the clients. Rules of engagement help to ensure that the test is conducted in a legal, ethical, and professional manner, and that the results are accurate and reliable. Rules of engagement typically include the following elements:
? The type and scope of the test, such as black box, white box, or gray box, and the target systems, networks, applications, or data.
? The client contact details and the communication channels for reporting issues, incidents, or emergencies during the test.
? The testing team credentials and the authorized tools and techniques that they can use.
? The sensitive data handling and encryption requirements, such as how to store, transmit, or dispose of any data obtained during the test.
? The status meeting and report schedules, formats, and recipients, as well as the confidentiality and non-disclosure agreements for the test results.
? The timeline and duration of the test, and the hours of operation and testing windows.

? The professional and ethical behavior expectations for the testers, such as avoiding unnecessary damage, disruption, or disclosure of information.
Supply chain analysis, right to audit clause, and due diligence are not related to the terms of a test with a third-party penetration tester. Supply chain analysis is the process of evaluating the security and risk posture of the suppliers and partners in a business network. Right to audit clause is a provision in a contract that gives one party the right to audit another party to verify their compliance with the contract terms and conditions. Due diligence is the process of identifying and addressing the cyber risks that a potential vendor or partner brings to an organization.
References = https://www.yeahhub.com/every-penetration-tester-you-should-know-about- this-rules-of-engagement/
https://bing.com/search?q=rules+of+engagement+penetration+testing

NEW QUESTION 8
An analyst is evaluating the implementation of Zero Trust principles within the data plane. Which of the following would be most relevant for the analyst to evaluate?

A. Secured zones
B. Subject role
C. Adaptive identity
D. Threat scope reduction

Answer: D

Explanation:
 The data plane, also known as the forwarding plane, is the part of the network that carries user traffic and data. It is responsible for moving packets from one device to another based on the routing and switching decisions made by the control plane. The data plane is a critical component of the Zero Trust architecture, as it is where most of the attacks and breaches occur. Therefore, implementing Zero Trust principles within the data plane can help to improve the security and resilience of the network.
One of the key principles of Zero Trust is to assume breach and minimize the blast radius and segment access. This means that the network should be divided into smaller and isolated segments or zones, each with its own security policies and controls. This way, if one segment is compromised, the attacker cannot easily move laterally to other segments and access more resources or data. This principle is also known as threat scope reduction, as it reduces the scope and impact of a potential threat.
The other options are not as relevant for the data plane as threat scope reduction. Secured zones are a concept related to the control plane, which is the part of the network that makes routing and switching decisions. Subject role is a concept related to the identity plane, which is the part of the network that authenticates and authorizes users and devices. Adaptive identity is a concept related to the policy plane, which is the part of the network that defines and enforces the security policies and rules.
References = https://bing.com/search?q=Zero+Trust+data+plane https://learn.microsoft.com/en-us/security/zero-trust/deploy/data

NEW QUESTION 9
An organization disabled unneeded services and placed a firewall in front of a business- critical legacy system. Which of the following best describes the actions taken by the organization?

A. Exception
B. Segmentation
C. Risk transfer
D. Compensating controls

Answer: D

Explanation:
 Compensating controls are alternative security measures that are implemented when the primary controls are not feasible, cost-effective, or sufficient to mitigate the risk. In this case, the organization used compensating controls to protect the legacy system from potential attacks by disabling unneeded services and placing a firewall in front of it. This reduced the attack surface and the likelihood of exploitation.
References:
? Official CompTIA Security+ Study Guide (SY0-701), page 29
? Security Controls - CompTIA Security+ SY0-701 - 1.1 1

NEW QUESTION 10
An employee clicked a link in an email from a payment website that asked the employee to update contact information. The employee entered the log-in information but received a "page not found" error message. Which of the following types of social engineering attacks occurred?

A. Brand impersonation
B. Pretexting
C. Typosquatting
D. Phishing

Answer: D

Explanation:
 Phishing is a type of social engineering attack that involves sending fraudulent emails that appear to be from legitimate sources, such as payment websites, banks, or other trusted entities. The goal of phishing is to trick the recipients into clicking on malicious links, opening malicious attachments, or providing sensitive information, such as log-in credentials, personal data, or financial details. In this scenario, the employee received an email from a payment website that asked the employee to update contact information. The email contained a link that directed the employee to a fake website that mimicked the appearance of the real one. The employee entered the log-in information, but received a "page not found" error message. This indicates that the employee fell victim to a phishing attack, and the attacker may have captured the employee's credentials for the payment website. References = Other Social Engineering Attacks – CompTIA Security+ SY0-701 – 2.2, CompTIA Security+: Social Engineering Techniques & Other Attack … - NICCS, [CompTIA Security+ Study Guide with over 500 Practice Test Questions: Exam SY0-701, 9th Edition]

NEW QUESTION 10
Which of the following threat actors is the most likely to be hired by a foreign government to attack critical systems located in other countries?

A. Hacktivist
B. Whistleblower

C. Organized crime
D. Unskilled attacker

Answer: C

Explanation:
 Organized crime is a type of threat actor that is motivated by financial gain and often operates across national borders. Organized crime groups may be hired by foreign governments to conduct cyberattacks on critical systems located in other countries, such as power grids, military networks, or financial institutions. Organized crime groups have the resources, skills, and connections to carry out sophisticated and persistent attacks that can cause significant damage and disruption12. References = 1: Threat Actors - CompTIA Security+ SY0-701 - 2.1 2: CompTIA Security+ SY0-701 Certification Study Guide

NEW QUESTION 15
A systems administrator works for a local hospital and needs to ensure patient data is protected and secure. Which of the following data classifications should be used to secure patient data?

A. Private
B. Critical
C. Sensitive
D. Public

Answer: C

Explanation:
 Data classification is a process of categorizing data based on its level of sensitivity, value, and impact to the organization if compromised. Data classification helps to determine the appropriate security controls and policies to protect the data from unauthorized access, disclosure, or modification. Different organizations may use different data classification schemes, but a common one is the four-tier model, which consists of the following categories: public, private, sensitive, and critical. Public data is data that is intended for public access and disclosure, and has no impact to the organization if compromised. Examples of public data include marketing materials, press releases, and public web pages.
Private data is data that is intended for internal use only, and has a low to moderate impact to the organization if compromised. Examples of private data include employee records, financial reports, and internal policies.
Sensitive data is data that is intended for authorized use only, and has a high impact to the organization if compromised. Examples of sensitive data include personal information, health records, and intellectual property.
Critical data is data that is essential for the organization's operations and survival, and has a severe impact to the organization if compromised. Examples of critical data include encryption keys, disaster recovery plans, and system backups.
Patient data is a type of sensitive data, as it contains personal and health information that is protected by law and ethical standards. Patient data should be used only by authorized personnel for legitimate purposes, and should be secured from unauthorized access, disclosure, or modification. Therefore, the systems administrator should use the sensitive data classification to secure patient data.
References = CompTIA Security+ SY0-701 Certification Study Guide, page 90-91; Professor Messer's CompTIA SY0-701 Security+ Training Course, video 5.5 - Data Classifications, 0:00 - 4:30.

NEW QUESTION 17
A security analyst reviews domain activity logs and notices the following:

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UserID jsmith, password authentication: succeeded, MFA: failed (invalid code)
UserID jsmith, password authentication: succeeded, MFA: failed (invalid code)
UserID jsmith, password authentication: succeeded, MFA: failed (invalid code)
UserID jsmith, password authentication: succeeded, MFA: failed (invalid code)
```

Which of the following is the best explanation for what the security analyst has discovered?

A. The user jsmith's account has been locked out.
B. A keylogger is installed on [smith's workstation
C. An attacker is attempting to brute force ismith's account.
D. Ransomware has been deployed in the domain.

Answer: C

Explanation:
 Brute force is a type of attack that tries to guess the password or other credentials of a user account by using a large number of possible combinations. An attacker can use automated tools or scripts to perform a brute force attack and gain unauthorized access to the account. The domain activity logs show that the user ismith has failed to log in 10 times in a row within a short period of time, which is a strong indicator of a brute force attack. The logs also show that the source IP address of the failed logins is different from the usual IP address of ismith, which suggests that the attacker is using a different device or location to launch the attack. The security analyst should take immediate action to block the attacker's IP address, reset ismith's password, and notify ismith of the incident. References = CompTIA Security+ Study Guide with over 500 Practice Test Questions: Exam SY0-701, 9th Edition, Chapter 1, page 14. CompTIA Security+ (SY0-701) Certification Exam Objectives, Domain 1.1, page 2. Threat Actors and Attributes – SY0-601 CompTIA Security+ : 1.1

NEW QUESTION 18
An administrator was notified that a user logged in remotely after hours and copied large amounts of data to a personal device.
Which of the following best describes the user's activity?

A. Penetration testing
B. Phishing campaign
C. External audit
D. Insider threat

Answer: D

Explanation:
 An insider threat is a security risk that originates from within the organization, such as an employee, contractor, or business partner, who has authorized access to the organization's data and systems. An insider threat can be malicious, such as stealing, leaking, or sabotaging sensitive data, or unintentional, such as falling

victim to phishing or social engineering. An insider threat can cause significant damage to the organization's reputation, finances, operations, and legal compliance. The user's activity of logging in remotely after hours and copying large amounts of data to a personal device is an example of a malicious insider threat, as it violates the organization's security policies and compromises the confidentiality and integrity of the data. References = Insider Threats – CompTIA Security+ SY0-701: 3.2, video at 0:00; CompTIA Security+ SY0-701 Certification Study Guide, page 133.

NEW QUESTION 21
A company's web filter is configured to scan the URL for strings and deny access when matches are found. Which of the following search strings should an analyst employ to prohibit access to non-encrypted websites?

A. encryption=off\
B. http://
C. www.*.com
D. :443

Answer: B

Explanation:
 A web filter is a device or software that can monitor, block, or allow web traffic based on predefined rules or policies. One of the common methods of web filtering is to scan the URL for strings and deny access when matches are found. For example, a web filter can block access to websites that contain the words "gambling", "porn", or "malware" in their URLs. A URL is a uniform resource locator that identifies the location and protocol of a web resource. A URL typically consists of the following components: protocol://domain:port/path?query#fragment. The protocol specifies the communication method used to access the web resource, such as HTTP, HTTPS, FTP, or SMTP. The domain is the name of the web server that hosts the web resource, such as www.google.com or www.bing.com. The port is an optional number that identifies the specific service or application running on the web server, such as 80 for HTTP or 443 for HTTPS. The path is the specific folder or file name of the web resource, such as /index.html or /images/logo.png. The query is an optional string that contains additional information or parameters for the web resource, such as ?q=security or ?lang=en. The fragment is an optional string that identifies a specific part or section of the web resource, such as #introduction or #summary.
To prohibit access to non-encrypted websites, an analyst should employ a search string that matches the protocol of non-encrypted web traffic, which is HTTP. HTTP stands for hypertext transfer protocol, and it is a standard protocol for transferring data between web servers and web browsers. However, HTTP does not provide any encryption or security for the data, which means that anyone who intercepts the web traffic can read or modify the data. Therefore, non-encrypted websites are vulnerable to eavesdropping, tampering, or spoofing attacks. To access a non-encrypted website, the URL usually starts with http://, followed by the domain name and optionally the port number. For example, http://www.example.com or http://www.example.com:80. By scanning the URL for the string http://, the web filter can identify and block non-encrypted websites.
The other options are not correct because they do not match the protocol of non-encrypted web traffic. Encryption=off is a possible query string that indicates the encryption status of the web resource, but it is not a standard or mandatory parameter. Https:// is the protocol of encrypted web traffic, which uses hypertext transfer protocol secure (HTTPS) to provide encryption and security for the data. Www.*.com is a possible domain name that matches any website that starts with www and ends with .com, but it does not specify the protocol.
:443 is the port number of HTTPS, which is the protocol of encrypted web traffic. References = CompTIA Security+ Study Guide (SY0-701), Chapter 2: Securing Networks, page 69. Professor Messer's CompTIA SY0-701 Security+ Training Course, Section 2.1: Network Devices and Technologies, video: Web Filter (5:16).

NEW QUESTION 22
After a recent vulnerability scan, a security engineer needs to harden the routers within the corporate network. Which of the following is the most appropriate to disable?

A. Console access
B. Routing protocols
C. VLANs
D. Web-based administration

Answer: D

Explanation:
 Web-based administration is a feature that allows users to configure and manage routers through a web browser interface. While this feature can provide convenience and ease of use, it can also pose a security risk, especially if the web interface is exposed to the internet or uses weak authentication or encryption methods. Web-based administration can be exploited by attackers to gain unauthorized access to the router's settings, firmware, or data, or to launch attacks such as cross-site scripting (XSS) or cross-site request forgery (CSRF). Therefore, disabling web-based administration is a good practice to harden the routers within the corporate network. Console access, routing protocols, and VLANs are other features that can be configured on routers, but they are not the most appropriate to disable for hardening purposes. Console access is a physical connection to the router that requires direct access to the device, which can be secured by locking the router in a cabinet or using a strong password. Routing protocols are essential for routers to exchange routing information and maintain network connectivity, and they can be secured by using authentication or encryption mechanisms. VLANs are logical segments of a network that can enhance network performance and security by isolating traffic and devices, and they can be secured by using VLAN access control lists (VACLs) or private VLANs (PVLANs). References: CCNA SEC: Router Hardening Your Router's Security Stinks: Here's How to Fix It

NEW QUESTION 25
One of a company's vendors sent an analyst a security bulletin that recommends a BIOS update. Which of the following vulnerability types is being addressed by the patch?

A. Virtualization
B. Firmware
C. Application
D. Operating system

Answer: B

Explanation:
 Firmware is a type of software that is embedded in hardware devices, such as BIOS, routers, printers, or cameras. Firmware controls the basic functions and operations of the device, and can be updated or patched to fix bugs, improve performance, or enhance security. Firmware vulnerabilities are flaws or weaknesses in the firmware code that can be exploited by attackers to gain unauthorized access, modify settings, or cause damage to the device or the network. A BIOS update is a patch that addresses a firmware vulnerability in the basic input/output system of a computer, which is responsible for booting the operating system and managing the communication between the hardware and the software. The other options are not types of vulnerabilities, but rather categories of software or technology.

NEW QUESTION 30
A company purchased cyber insurance to address items listed on the risk register. Which of the following strategies does this represent?

A. Accept
B. Transfer
C. Mitigate
D. Avoid

Answer: B

Explanation:
Cyber insurance is a type of insurance that covers the financial losses and liabilities that result from cyberattacks, such as data breaches, ransomware, denial-of-service, phishing, or malware. Cyber insurance can help a company recover from the costs of restoring data, repairing systems, paying ransoms, compensating customers, or facing legal actions. Cyber insurance is one of the possible strategies that a company can use to address the items listed on the risk register. A risk register is a document that records the identified risks, their probability, impact, and mitigation strategies for a project or an organization. The four common risk mitigation strategies are:
? Accept: The company acknowledges the risk and decides to accept the consequences without taking any action to reduce or eliminate the risk. This strategy is usually chosen when the risk is low or the cost of mitigation is too high.
? Transfer: The company transfers the risk to a third party, such as an insurance company, a vendor, or a partner. This strategy is usually chosen when the risk is high or the company lacks the resources or expertise to handle the risk.
? Mitigate: The company implements controls or measures to reduce the likelihood or impact of the risk. This strategy is usually chosen when the risk is moderate or the cost of mitigation is reasonable.
? Avoid: The company eliminates the risk by changing the scope, plan, or design of the project or the organization. This strategy is usually chosen when the risk is unacceptable or the cost of mitigation is too high.
By purchasing cyber insurance, the company is transferring the risk to the insurance company, which will cover the financial losses and liabilities in case of a cyberattack. Therefore, the correct answer is B. Transfer. References = CompTIA Security+ Study Guide (SY0-701), Chapter 8: Governance, Risk, and Compliance, page 377. Professor Messer's CompTIA SY0-701 Security+ Training Course, Section 8.1: Risk Management, video: Risk Mitigation Strategies (5:37).

NEW QUESTION 34
A U.S.-based cloud-hosting provider wants to expand its data centers to new international locations. Which of the following should the hosting provider consider first?

A. Local data protection regulations
B. Risks from hackers residing in other countries
C. Impacts to existing contractual obligations
D. Time zone differences in log correlation

Answer: A

Explanation:
Local data protection regulations are the first thing that a cloud-hosting provider should consider before expanding its data centers to new international locations. Data protection regulations are laws or standards that govern how personal or sensitive data is collected, stored, processed, and transferred across borders. Different countries or regions may have different data protection regulations, such as the General Data Protection Regulation (GDPR) in the European Union, the Personal Information Protection and Electronic Documents Act (PIPEDA) in Canada, or the California Consumer Privacy Act (CCPA) in the United States. A cloud-hosting provider must comply with the local data protection regulations of the countries or regions where it operates or serves customers, or else it may face legal penalties, fines, or reputational damage. Therefore, a cloud-hosting provider should research and understand the local data protection regulations of the new international locations before expanding its data centers there. References = CompTIA Security+ Study Guide with over 500 Practice Test Questions: Exam SY0-701, 9th Edition, Chapter 7, page 269. CompTIA Security+ SY0-701 Exam Objectives, Domain 5.1, page 14.

NEW QUESTION 35
A healthcare organization wants to provide a web application that allows individuals to digitally report health emergencies.
Which of the following is the most important consideration during development?

A. Scalability
B. Availability
C. Cost
D. Ease of deployment

Answer: B

Explanation:
Availability is the ability of a system or service to be accessible and usable when needed. For a web application that allows individuals to digitally report health emergencies, availability is the most important consideration during development, because any downtime or delay could have serious consequences for the health and safety of the users. The web application should be designed to handle high traffic, prevent denial-of- service attacks, and have backup and recovery plans in case of failures2.
References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 2, page 41.

NEW QUESTION 40
Which of the following involves an attempt to take advantage of database misconfigurations?

A. Buffer overflow
B. SQL injection
C. VM escape
D. Memory injection

Answer: B

Explanation:
SQL injection is a type of attack that exploits a database misconfiguration or a flaw in the application code that interacts with the database. An attacker can inject

malicious SQL statements into the user input fields or the URL parameters that are sent to the database server. These statements can then execute unauthorized commands, such as reading, modifying, deleting, or creating data, or even taking over the database server. SQL injection can compromise the confidentiality, integrity, and availability of the data and the system. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 215 1

NEW QUESTION 43
A technician wants to improve the situational and environmental awareness of existing users as they transition from remote to in-office work. Which of the following is the best option?

A. Send out periodic security reminders.
B. Update the content of new hire documentation.
C. Modify the content of recurring trainin
D. D Implement a phishing campaign

Answer: C

Explanation:
 Recurring training is a type of security awareness training that is conducted periodically to refresh and update the knowledge and skills of the users. Recurring training can help improve the situational and environmental awareness of existing users as they transition from remote to in-office work, as it can cover the latest threats, best practices, and policies that are relevant to their work environment. Modifying the content of recurring training can ensure that the users are aware of the current security landscape and the expectations of their roles. References = CompTIA Security+ Study Guide with over 500 Practice Test Questions: Exam SY0-701, 9th Edition, Chapter 5, page 232. CompTIA Security+ (SY0-701) Certification Exam Objectives, Domain 5.1, page 18.

NEW QUESTION 46
After a company was compromised, customers initiated a lawsuit. The company's attorneys have requested that the security team initiate a legal hold in response to the lawsuit. Which of the following describes the action the security team will most likely be required to take?

A. Retain the emails between the security team and affected customers for 30 days.
B. Retain any communications related to the security breach until further notice.
C. Retain any communications between security members during the breach response.
D. Retain all emails from the company to affected customers for an indefinite period of time.

Answer: B

Explanation:
A legal hold (also known as a litigation hold) is a notification sent from an organization's legal team to employees instructing them not to delete electronically stored information (ESI) or discard paper documents that may be relevant to a new or imminent legal case. A legal hold is intended to preserve evidence and prevent spoliation, which is the intentional or negligent destruction of evidence that could harm a party's case. A legal hold can be triggered by various events, such as a lawsuit, a regulatory investigation, or a subpoena12 In this scenario, the company's attorneys have requested that the security team initiate a legal hold in response to the lawsuit filed by the customers after the company was compromised. This means that the security team will most likely be required to retain any communications related to the security breach until further notice. This could include emails, instant messages, reports, logs, memos, or any other documents that could be relevant to the lawsuit. The security team should also inform the relevant custodians (the employees who have access to or control over the ESI) of their preservation obligations and monitor their compliance. The security team should also document the legal hold process and its scope, as well as take steps to protect the ESI from alteration, deletion, or loss34
References:
1: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 6: Risk Management, page 303 2: CompTIA Security+ Certification Kit: Exam SY0-701, 7th Edition, Chapter 6: Risk Management, page 305 3: Legal Hold (Litigation Hold) - The Basics of E-Discovery - Exterro 5 4: The Legal Implications and Consequences of a Data Breach 6

NEW QUESTION 51
Which of the following best practices gives administrators a set period to perform changes to an operational system to ensure availability and minimize business impacts?

A. Impact analysis
B. Scheduled downtime
C. Backout plan
D. Change management boards

Answer: B

Explanation:
 Scheduled downtime is a planned period of time when a system or service is unavailable for maintenance, updates, upgrades, or other changes. Scheduled downtime gives administrators a set period to perform changes to an operational system without disrupting the normal business operations or affecting the availability of the system or service. Scheduled downtime also allows administrators to inform the users and stakeholders about the expected duration and impact of the changes. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 12: Security Operations and Administration, page 579 1

NEW QUESTION 56
A company is expanding its threat surface program and allowing individuals to security test
the company's internet-facing application. The company will compensate researchers based on the vulnerabilities discovered. Which of the following best describes the program the company is setting up?

A. Open-source intelligence
B. Bug bounty
C. Red team
D. Penetration testing

Answer: B

Explanation:
 A bug bounty is a program that rewards security researchers for finding and reporting vulnerabilities in an application or system. Bug bounties are often used by

companies to improve their security posture and incentivize ethical hacking. A bug bounty program typically defines the scope, rules, and compensation for the researchers. References = CompTIA Security+ Study Guide with over 500 Practice Test Questions: Exam SY0-701, 9th Edition, Chapter 1, page 10. CompTIA Security+ (SY0-701) Certification Exam Objectives, Domain 1.1, page 2.

NEW QUESTION 57

A Chief Information Security Officer wants to monitor the company's servers for SQLi attacks and allow for comprehensive investigations if an attack occurs. The company uses SSL decryption to allow traffic monitoring. Which of the following strategies would best accomplish this goal?

A. Logging all NetFlow traffic into a SIEM
B. Deploying network traffic sensors on the same subnet as the servers
C. Logging endpoint and OS-specific security logs
D. Enabling full packet capture for traffic entering and exiting the servers

Answer: D

Explanation:

Full packet capture is a technique that records all network traffic passing through a device, such as a router or firewall. It allows for detailed analysis and investigation of network events, such as SQLi attacks, by providing the complete content and context of the packets. Full packet capture can help identify the source, destination, payload, and timing of an SQLi attack, as well as the impact on the server and database. Logging NetFlow traffic, network traffic sensors, and endpoint and OS-specific security logs can provide some information about network activity, but they do not capture the full content of the packets, which may limit the scope and depth of the investigation. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 372-373

NEW QUESTION 62

An enterprise has been experiencing attacks focused on exploiting vulnerabilities in older browser versions with well-known exploits. Which of the following security solutions should be configured to best provide the ability to monitor and block these known signature-based attacks?

A. ACL
B. DLP
C. IDS
D. IPS

Answer: D

Explanation:

An intrusion prevention system (IPS) is a security device that monitors network traffic and blocks or modifies malicious packets based on predefined rules or signatures. An IPS can prevent attacks that exploit known vulnerabilities in older browser versions by detecting and dropping the malicious packets before they reach the target system. An IPS can also perform other functions, such as rate limiting, encryption, or redirection. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 3: Securing Networks, page 132.

NEW QUESTION 65

A client demands at least 99.99% uptime from a service provider's hosted security services. Which of the following documents includes the information the service provider should return to the client?

A. MOA
B. SOW
C. MOU
D. SLA

Answer: D

Explanation:

A service level agreement (SLA) is a document that defines the level of service expected by a customer from a service provider, indicating the metrics by which that service is measured, and the remedies or penalties, if any, should the agreed-upon levels not be achieved. An SLA can specify the minimum uptime or availability of a service, such as 99.99%, and the consequences for failing to meet that standard. A memorandum of agreement (MOA), a statement of work (SOW), and a memorandum of understanding (MOU) are other types of documents that can be used to establish a relationship between parties, but they do not typically include the details of service levels and performance metrics that an SLA does. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 16-17

NEW QUESTION 66

A systems administrator is looking for a low-cost application-hosting solution that is cloud- based. Which of the following meets these requirements?

A. Serverless framework
B. Type 1 hvpervisor
C. SD-WAN
D. SDN

Answer: A

Explanation:

A serverless framework is a cloud-based application-hosting solution that meets the requirements of low-cost and cloud-based. A serverless framework is a type of cloud computing service that allows developers to run applications without managing or provisioning any servers. The cloud provider handles the server-side infrastructure, such as scaling, load balancing, security, and maintenance, and charges the developer only for the resources consumed by the application. A serverless framework enables developers to focus on the application logic and functionality, and reduces the operational costs and complexity of hosting applications. Some examples of serverless frameworks are AWS Lambda, Azure Functions, and Google Cloud Functions.
A type 1 hypervisor, SD-WAN, and SDN are not cloud-based application-hosting solutions that meet the requirements of low-cost and cloud-based. A type 1 hypervisor is a software layer that runs directly on the hardware and creates multiple virtual machines that can run different operating systems and applications. A type 1 hypervisor is not a cloud-based service, but a virtualization technology that can be used to create private or hybrid clouds. A type 1 hypervisor also requires the developer to manage and provision the servers and the virtual machines, which can increase the operational costs and complexity of hosting applications. Some examples of type 1 hypervisors are VMware ESXi, Microsoft Hyper-V, and Citrix XenServer.

SD-WAN (Software-Defined Wide Area Network) is a network architecture that uses software to dynamically route traffic across multiple WAN connections, such as broadband, LTE, or MPLS. SD-WAN is not a cloud-based service, but a network optimization technology that can improve the performance, reliability, and security of WAN connections. SD-WAN can be used to connect remote sites or users to cloud-based applications, but it does not host the applications itself. Some examples of SD-WAN vendors are Cisco, VMware, and Fortinet.

SDN (Software-Defined Networking) is a network architecture that decouples the control plane from the data plane, and uses a centralized controller to programmatically manage and configure the network devices and traffic flows. SDN is not a cloud-based service, but a network automation technology that can enhance the scalability, flexibility, and efficiency of the network. SDN can be used to create virtual networks or network functions that can support cloud-based applications, but it does not host the applications itself. Some examples of SDN vendors are OpenFlow, OpenDaylight, and OpenStack.

References = CompTIA Security+ SY0-701 Certification Study Guide, page 264-265; Professor Messer's CompTIA SY0-701 Security+ Training Course, video 3.1 - Cloud and Virtualization, 7:40 - 10:00; [Serverless Framework]; [Type 1 Hypervisor]; [SD-WAN]; [SDN].

NEW QUESTION 71
A company is planning to set up a SIEM system and assign an analyst to review the logs on a weekly basis. Which of the following types of controls is the company setting up?

A. Corrective
B. Preventive
C. Detective
D. Deterrent

Answer: C

Explanation:
A detective control is a type of control that monitors and analyzes the events and activities in a system or a network, and alerts or reports when an incident or a violation occurs. A SIEM (Security Information and Event Management) system is a tool that collects, correlates, and analyzes the logs from various sources, such as firewalls, routers, servers, or applications, and provides a centralized view of the security status and incidents. An analyst who reviews the logs on a weekly basis can identify and investigate any anomalies, trends, or patterns that indicate a potential threat or a breach. A detective control can help the company to respond quickly and effectively to the incidents, and to improve its security posture and resilience. References = CompTIA Security+ Study Guide with over 500 Practice Test Questions: Exam SY0-701, 9th Edition, Chapter 1, page 23. CompTIA Security+ SY0-701 Exam Objectives, Domain 4.3, page 14.

NEW QUESTION 73
A systems administrator is creating a script that would save time and prevent human error when performing account creation for a large number of end users. Which of the following would be a good use case for this task?

A. Off-the-shelf software
B. Orchestration
C. Baseline
D. Policy enforcement

Answer: B

Explanation:
Orchestration is the process of automating multiple tasks across different systems and applications. It can help save time and reduce human error by executing predefined workflows and scripts. In this case, the systems administrator can use orchestration to create accounts for a large number of end users without having to manually enter their information and assign permissions. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 457 1

NEW QUESTION 76
A company's marketing department collects, modifies, and stores sensitive customer data. The infrastructure team is responsible for securing the data while in transit and at rest. Which of the following data roles describes the customer?

A. Processor
B. Custodian
C. Subject
D. Owner

Answer: C

Explanation:
According to the CompTIA Security+ SY0-701 Certification Study Guide, data subjects are the individuals whose personal data is collected, processed, or stored by an organization. Data subjects have certain rights and expectations regarding how their data is handled, such as the right to access, correct, delete, or restrict their data. Data subjects are different from data owners, who are the individuals or entities that have the authority and responsibility to determine how data is classified, protected, and used. Data subjects are also different from data processors, who are the individuals or entities that perform operations on data on behalf of the data owner, such as collecting, modifying, storing, or transmitting data. Data subjects are also different from data custodians, who are the individuals or entities that implement the security controls and procedures specified by the data owner to protect data while in transit and at rest.
ReferencesCompTIA Security+ SY0-701 Certification Study Guide, Chapter 2: Data Security, page 511

NEW QUESTION 81
An organization is leveraging a VPN between its headquarters and a branch location.
Which of the following is the VPN protecting?

A. Data in use
B. Data in transit
C. Geographic restrictions
D. Data sovereignty

Answer: B

Explanation:
Data in transit is data that is moving from one location to another, such as over a network or through the air. Data in transit is vulnerable to interception,

modification, or theft by malicious actors. A VPN (virtual private network) is a technology that protects data in transit by creating a secure tunnel between two endpoints and encrypting the data that passes through it2.
References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 4, page 145.

NEW QUESTION 86
Which of the following roles, according to the shared responsibility model, is responsible for securing the company's database in an IaaS model for a cloud environment?

A. Client
B. Third-party vendor
C. Cloud provider
D. DBA

Answer: A

Explanation:
According to the shared responsibility model, the client and the cloud provider have different roles and responsibilities for securing the cloud environment, depending on the service model. In an IaaS (Infrastructure as a Service) model, the cloud provider is responsible for securing the physical infrastructure, such as the servers, storage, and network devices, while the client is responsible for securing the operating systems, applications, and data that run on the cloud infrastructure. Therefore, the client is responsible for securing the company's database in an IaaS model for a cloud environment, as the database is an application that stores data. The client can use various security controls, such as encryption, access control, backup, and auditing, to protect the database from unauthorized access, modification, or loss. The third-party vendor and the DBA (Database Administrator) are not roles defined by the shared responsibility model, but they may be involved in the implementation or management of the database security. References = CompTIA Security+ SY0-701 Certification Study Guide, page 263- 264; Professor Messer's CompTIA SY0-701 Security+ Training Course, video 3.1 - Cloud and Virtualization, 5:00 - 7:40.

NEW QUESTION 87
Which of the following is used to add extra complexity before using a one-way data transformation algorithm?

A. Key stretching
B. Data masking
C. Steganography
D. Salting

Answer: D

Explanation:
Salting is the process of adding extra random data to a password or other data before applying a one-way data transformation algorithm, such as a hash function. Salting increases the complexity and randomness of the input data, making it harder for attackers to guess or crack the original data using precomputed tables or brute force methods. Salting also helps prevent identical passwords from producing identical hash values, which could reveal the passwords to attackers who have access to the hashed data. Salting is commonly used to protect passwords stored in databases or transmitted over networks. References =
? Passwords technical overview
? Encryption, hashing, salting – what's the difference?
? Salt (cryptography)

NEW QUESTION 88
Which of the following is the most common data loss path for an air-gapped network?

A. Bastion host
B. Unsecured Bluetooth
C. Unpatched OS
D. Removable devices

Answer: D

Explanation:
An air-gapped network is a network that is physically isolated from other networks, such as the internet, to prevent unauthorized access and data leakage. However, an air-gapped network can still be compromised by removable devices, such as USB drives, CDs, DVDs, or external hard drives, that are used to transfer data between the air-gapped network and other networks. Removable devices can carry malware, spyware, or other malicious code that can infect the air-gapped network or exfiltrate data from
it. Therefore, removable devices are the most common data loss path for an air-gapped network. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 9: Network Security, page 449 1

NEW QUESTION 93
Which of the following security concepts is the best reason for permissions on a human resources fileshare to follow the principle of least privilege?

A. Integrity
B. Availability
C. Confidentiality
D. Non-repudiation

Answer: C

Explanation:
Confidentiality is the security concept that ensures data is protected from unauthorized access or disclosure. The principle of least privilege is a technique that grants users or systems the minimum level of access or permissions that they need to perform their tasks, and nothing more. By applying the principle of least privilege to a human resources fileshare, the permissions can be restricted to only those who have a legitimate need to access the sensitive data, such as HR staff, managers, or auditors. This can prevent unauthorized users, such as hackers, employees, or contractors, from accessing, copying, modifying, or deleting the data. Therefore, the principle of least privilege can enhance the confidentiality of the data on the fileshare. Integrity, availability, and non- repudiation are other security concepts, but they are not the best reason for permissions on a human resources fileshare to follow the principle of least privilege. Integrity is the security

concept that ensures data is accurate and consistent, and protected from unauthorized modification or corruption. Availability is the security concept that ensures data is accessible and usable by authorized users or systems when needed. Non-repudiation is the security concept that ensures the authenticity and accountability of data and actions, and prevents the denial of involvement or responsibility. While these concepts are also important for data security, they are not directly related to the level of access or permissions granted to users or systems. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 16-17, 372-373

NEW QUESTION 95

A company's end users are reporting that they are unable to reach external websites. After reviewing the performance data for the DNS severs, the analyst discovers that the CPU, disk, and memory usage are minimal, but the network interface is flooded with inbound traffic. Network logs show only a small number of DNS queries sent to this server. Which of the following best describes what the security analyst is seeing?

A. Concurrent session usage
B. Secure DNS cryptographic downgrade
C. On-path resource consumption
D. Reflected denial of service

Answer: D

Explanation:

A reflected denial of service (RDoS) attack is a type of DDoS attack that uses spoofed source IP addresses to send requests to a third-party server, which then sends responses to the victim server. The attacker exploits the difference in size between the request and the response, which can amplify the amount of traffic sent to the victim server. The attacker also hides their identity by using the victim's IP address as the source. A RDoS attack can target DNS servers by sending forged DNS queries that generate large DNS responses. This can flood the network interface of the DNS server and prevent it from serving legitimate requests from end users. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 215-216 1

NEW QUESTION 98

After reviewing the following vulnerability scanning report:
Server:192.168.14.6
Service: Telnet
Port: 23 Protocol: TCP Status: Open Severity: High
Vulnerability: Use of an insecure network protocol
A security analyst performs the following test: nmap -p 23 192.168.14.6 —script telnet-encryption PORT STATE SERVICE REASON
23/tcp open telnet syn-ack I telnet encryption:
| _ Telnet server supports encryption
Which of the following would the security analyst conclude for this reported vulnerability?

A. It is a false positive.
B. A rescan is required.
C. It is considered noise.
D. Compensating controls exist.

Answer: A

Explanation:

A false positive is a result that indicates a vulnerability or a problem when there is none. In this case, the vulnerability scanning report shows that the telnet service on port 23 is open and uses an insecure network protocol. However, the security analyst performs a test using nmap and a script that checks for telnet encryption support. The result shows that the telnet server supports encryption, which means that the data transmitted between the client and the server can be protected from eavesdropping. Therefore, the reported vulnerability is a false positive and does not reflect the actual security posture of the server. The security analyst should verify the encryption settings of the telnet server and client and ensure that they are configured properly3. References: 3: Telnet Protocol - Can You Encrypt Telnet?

NEW QUESTION 99

A company is developing a critical system for the government and storing project information on a fileshare. Which of the following describes how this data will most likely be classified? (Select two).

A. Private
B. Confidential
C. Public
D. Operational
E. Urgent
F. Restricted

Answer: BF

Explanation:

Data classification is the process of assigning labels to data based on its sensitivity and business impact. Different organizations and sectors may have different data classification schemes, but a common one is the following1:
? Public: Data that can be freely disclosed to anyone without any harm or risk.
? Private: Data that is intended for internal use only and may cause some harm or risk if disclosed.
? Confidential: Data that is intended for authorized use only and may cause significant harm or risk if disclosed.
? Restricted: Data that is intended for very limited use only and may cause severe harm or risk if disclosed.
In this scenario, the company is developing a critical system for the government and storing project information on a fileshare. This data is likely to be classified as confidential and restricted, because it is not meant for public or private use, and it may cause serious damage to national security or public safety if disclosed. The government may also have specific requirements or regulations for handling such data, such as encryption, access control, and auditing2. References: 1: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 16-17 2: Data Classification Practices: Final Project Description Released

NEW QUESTION 101

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