CompTIA

Exam Questions SY0-701

CompTIA Security+ Exam

NEW QUESTION 1
Which of the following agreement types defines the time frame in which a vendor needs to respond?

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

Answer: B

Explanation:
A service level agreement (SLA) is a type of agreement that defines the expectations and responsibilities between a service provider and a customer. It usually includes the quality, availability, and performance metrics of the service, as well as the time frame in which the provider needs to respond to service requests, incidents, or complaints. An SLA can help ensure that the customer receives the desired level of service and that the provider is accountable for meeting the agreed-upon standards.
References:
? Security+ (Plus) Certification | CompTIA IT Certifications, under “About the exam”, bullet point 3: “Operate with an awareness of applicable regulations and policies, including principles of governance, risk, and compliance.”
? CompTIA Security+ Certification Kit: Exam SY0-701, 7th Edition, Chapter 1, page 14: “Service Level Agreements (SLAs) are contracts between a service provider and a customer that specify the level of service expected from the service provider.”

NEW QUESTION 2
Which of the following would be best suited for constantly changing environments?

A. RTOS
B. Containers
C. Embedded systems
D. SCADA

Answer: B

Explanation:
Containers are a method of virtualization that allows applications to run in isolated environments with their own dependencies, libraries, and configurations. Containers are best suited for constantly changing environments because they are lightweight, portable, scalable, and easy to deploy and update. Containers can also support microservices architectures, which enable faster and more frequent delivery of software features. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 10: Mobile Device Security, page 512 1

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
A company prevented direct access from the database administrators’ workstations to the network segment that contains database servers. Which of the following should a database administrator use to access the database servers?

A. Jump server
B. RADIUS
C. HSM
D. Load balancer

Answer: A

Explanation:
A jump server is a device or virtual machine that acts as an intermediary between a user’s workstation and a remote network segment. A jump server can be used to securely access servers or devices that are not directly reachable from the user’s workstation, such as database servers. A jump server can also provide audit logs and access control for the remote connections. A jump server is also known as a jump box or a jump host12.
RADIUS is a protocol for authentication, authorization, and accounting of network access. RADIUS is not a device or a method to access remote servers, but rather a way to verify the identity and permissions of users or devices that request network access34. HSM is an acronym for Hardware Security Module, which is a physical device that provides secure storage and generation of cryptographic keys. HSMs are used to protect sensitive data and applications, such as digital

signatures, encryption, and authentication. HSMs are not used to access remote servers, but rather to enhance the security of the data and applications that reside on them5 .
A load balancer is a device or software that distributes network traffic across multiple servers or devices, based on criteria such as availability, performance, or capacity. A load balancer can improve the scalability, reliability, and efficiency of network services, such as web servers, application servers, or database servers. A load balancer is not used to access remote servers, but rather to optimize the delivery of the services that run on them. References =
? How to access a remote server using a jump host
? Jump server
? RADIUS
? Remote Authentication Dial-In User Service (RADIUS)
? Hardware Security Module (HSM)
? [What is an HSM?]
? [Load balancing (computing)]
? [What is Load Balancing?]

NEW QUESTION 5
Which of the following should a security administrator adhere to when setting up a new set of firewall rules?

A. Disaster recovery plan
B. Incident response procedure
C. Business continuity plan
D. Change management procedure

Answer: D

Explanation:
A change management procedure is a set of steps and guidelines that a security administrator should adhere to when setting up a new set of firewall rules. A firewall is a device or software that can filter, block, or allow network traffic based on predefined rules or policies. A firewall rule is a statement that defines the criteria and action for a firewall to apply to a packet or a connection. For example, a firewall rule can allow or deny traffic based on the source and destination IP addresses, ports, protocols, or applications. Setting up a new set of firewall rules is a type of change that can affect the security, performance, and functionality of the network. Therefore, a change management procedure is necessary to ensure that the change is planned, tested, approved, implemented, documented, and reviewed in a controlled and consistent manner. A change management procedure typically includes the following elements:
? A change request that describes the purpose, scope, impact, and benefits of the change, as well as the roles and responsibilities of the change owner, implementer, and approver.
? A change assessment that evaluates the feasibility, risks, costs, and dependencies of the change, as well as the alternatives and contingency plans.
? A change approval that authorizes the change to proceed to the implementation stage, based on the criteria and thresholds defined by the change policy.
? A change implementation that executes the change according to the plan and schedule, and verifies the results and outcomes of the change.
? A change documentation that records the details and status of the change, as well as the lessons learned and best practices.
? A change review that monitors and measures the performance and effectiveness of the change, and identifies any issues or gaps that need to be addressed or improved.
A change management procedure is important for a security administrator to adhere to when setting up a new set of firewall rules, as it can help to achieve the following objectives:
? Enhance the security posture and compliance of the network by ensuring that the
firewall rules are aligned with the security policies and standards, and that they do not introduce any vulnerabilities or conflicts.
? Minimize the disruption and downtime of the network by ensuring that the firewall
rules are tested and validated before deployment, and that they do not affect the availability or functionality of the network services or applications.
? Improve the efficiency and quality of the network by ensuring that the firewall rules
are optimized and updated according to the changing needs and demands of the network users and stakeholders, and that they do not cause any performance or compatibility issues.
? Increase the accountability and transparency of the network by ensuring that the
firewall rules are documented and reviewed regularly, and that they are traceable and auditable by the relevant authorities and parties.
The other options are not correct because they are not related to the process of setting up a new set of firewall rules. A disaster recovery plan is a set of policies and procedures that aim to restore the normal operations of an organization in the event of a system failure, natural disaster, or other emergency. An incident response procedure is a set of steps and guidelines that aim to contain, analyze, eradicate, and recover from a security incident, such as a cyberattack, data breach, or malware infection. A business continuity plan is a set of strategies and actions that aim to maintain the essential functions and operations of an organization during and after a disruptive event, such as a pandemic, power outage, or civil unrest. References = CompTIA Security+ Study Guide (SY0-701), Chapter 7: Resilience and Recovery, page 325. Professor Messer’s CompTIA SY0-701 Security+ Training Course, Section 1.3: Security Operations, video: Change Management (5:45).

NEW QUESTION 6
A security administrator needs a method to secure data in an environment that includes some form of checks so that the administrator can track any changes. Which of the following should the administrator set up to achieve this goal?

A. SPF
B. GPO
C. NAC
D. FIM

Answer: D

Explanation:
FIM stands for File Integrity Monitoring, which is a method to secure data by detecting any changes or modifications to files, directories, or registry keys. FIM can help a security administrator track any unauthorized or malicious changes to the data, as well as verify the integrity and compliance of the data. FIM can also alert the administrator of any potential breaches or incidents involving the data.
Some of the benefits of FIM are:
? It can prevent data tampering and corruption by verifying the checksums or hashes of the files.
? It can identify the source and time of the changes by logging the user and system actions.
? It can enforce security policies and standards by comparing the current state of the data with the baseline or expected state.
? It can support forensic analysis and incident response by providing evidence and audit trails of the changes.
References:
? CompTIA Security+ SY0-701 Certification Study Guide, Chapter 5: Technologies and Tools, Section 5.3: Security Tools, p. 209-210
? CompTIA Security+ SY0-701 Certification Exam Objectives, Domain 2: Technologies and Tools, Objective 2.4: Given a scenario, analyze and interpret output

from security technologies, Sub-objective: File integrity monitor, p. 12

NEW QUESTION 7
A bank insists all of its vendors must prevent data loss on stolen laptops. Which of the following strategies is the bank requiring?

A. Encryption at rest
B. Masking
C. Data classification
D. Permission restrictions

Answer: A

Explanation:
Encryption at rest is a strategy that protects data stored on a device, such as a laptop, by converting it into an unreadable format that can only be accessed with a decryption key or password. Encryption at rest can prevent data loss on stolen laptops by preventing unauthorized access to the data, even if the device is physically compromised.
Encryption at rest can also help comply with data privacy regulations and standards that require data protection. Masking, data classification, and permission restrictions are other strategies that can help protect data, but they may not be sufficient or applicable for data stored on laptops. Masking is a technique that obscures sensitive data elements, such as credit card numbers, with random characters or symbols, but it is usually used for data in transit or in use, not at rest. Data classification is a process that assigns labels to data based on its sensitivity and business impact, but it does not protect the data itself. Permission restrictions are rules that define who can access, modify, or delete data, but they may not prevent unauthorized access if the laptop is stolen and the security controls are bypassed. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 17-18, 372-373

NEW QUESTION 8
A company is required to use certified hardware when building networks. Which of the following best addresses the risks associated with procuring counterfeit hardware?

A. A thorough analysis of the supply chain
B. A legally enforceable corporate acquisition policy
C. A right to audit clause in vendor contracts and SOWs
D. An in-depth penetration test of all suppliers and vendors

Answer: A

Explanation:
Counterfeit hardware is hardware that is built or modified without the authorization of the original equipment manufacturer (OEM). It can pose serious risks to network quality, performance, safety, and reliability12. Counterfeit hardware can also contain malicious components that can compromise the security of the network and the data that flows through it3. To address the risks associated with procuring counterfeit hardware, a company should conduct a thorough analysis of the supply chain, which is the network of entities involved in the production, distribution, and delivery of the hardware. By analyzing the supply chain, the company can verify the origin, authenticity, and integrity of the hardware, and identify any potential sources of counterfeit or tampered products. A thorough analysis of the supply chain can include the following steps:
? Establishing a trusted relationship with the OEM and authorized resellers
? Requesting documentation and certification of the hardware from the OEM or authorized resellers
? Inspecting the hardware for any signs of tampering, such as mismatched labels, serial numbers, or components
? Testing the hardware for functionality, performance, and security
? Implementing a tracking system to monitor the hardware throughout its lifecycle
? Reporting any suspicious or counterfeit hardware to the OEM and law enforcement agencies References = 1: Identify Counterfeit and Pirated Products - Cisco, 2: What Is Hardware Security? Definition, Threats, and Best Practices, 3: Beware of Counterfeit Network Equipment - TechNewsWorld, : Counterfeit Hardware: The Threat and How to Avoid It

NEW QUESTION 9
A company needs to provide administrative access to internal resources while minimizing the traffic allowed through the security boundary. Which of the following methods is most secure?

A. Implementing a bastion host
B. Deploying a perimeter network
C. Installing a WAF
D. Utilizing single sign-on

Answer: A

Explanation:
A bastion host is a special-purpose server that is designed to withstand attacks and provide secure access to internal resources. A bastion host is usually placed on the edge of a network, acting as a gateway or proxy to the internal network. A bastion host can be configured to allow only certain types of traffic, such as SSH or HTTP, and block all other traffic. A bastion host can also run security software such as firewalls, intrusion detection systems, and antivirus programs to monitor and filter incoming and outgoing traffic. A bastion host can provide administrative access to internal resources by requiring strong authentication and encryption, and by logging all activities for auditing purposes12.
A bastion host is the most secure method among the given options because it minimizes the traffic allowed through the security boundary and provides a single point of control and defense. A bastion host can also isolate the internal network from direct exposure to the internet or other untrusted networks, reducing the attack surface and the risk of compromise3.
Deploying a perimeter network is not the correct answer, because a perimeter network is a network segment that separates the internal network from the external network. A perimeter network usually hosts public-facing services such as web servers, email servers, or DNS servers that need to be accessible from the internet. A perimeter network does not provide administrative access to internal resources, but rather protects them from unauthorized access. A perimeter network can also increase the complexity and cost of network management and security4.
Installing a WAF is not the correct answer, because a WAF is a security tool that protects web applications from common web-based attacks by monitoring, filtering, and blocking HTTP traffic. A WAF can prevent attacks such as cross-site scripting, SQL injection, or file inclusion, among others. A WAF does not provide administrative access to internal resources, but rather protects them from web application vulnerabilities. A WAF is also not a comprehensive solution for network security, as it only operates at the application layer and does not protect against other types of attacks or threats5.
Utilizing single sign-on is not the correct answer, because single sign-on is a method of authentication that allows users to access multiple sites, services, or applications with one username and password. Single sign-on can simplify the sign-in process for users and reduce the number of passwords they have to

remember and manage. Single sign-on does not provide administrative access to internal resources, but rather enables access to various resources that the user is authorized to use. Single sign-on can also introduce security risks if the user's credentials are compromised or if the single sign-on provider is
breached6. References = 1: Bastion host - Wikipedia, 2: 14 Best Practices to Secure SSH Bastion Host - goteleport.com, 3: The Importance Of Bastion Hosts In Network
Security, 4: What is the network perimeter? | Cloudflare, 5: What is a WAF? | Web Application Firewall explained, 6: [What is single sign-on (SSO)? - Definition from WhatIs.com]

NEW QUESTION 10
An employee receives a text message that appears to have been sent by the payroll department and is asking for credential verification. Which of the following social engineering techniques are being attempted? (Choose two.)

A. Typosquatting
B. Phishing
C. Impersonation
D. Vishing
E. Smishing
F. Misinformation

Answer: BE

Explanation:
Smishing is a type of social engineering technique that uses text messages (SMS) to trick victims into revealing sensitive information, clicking malicious links, or downloading malware. Smishing messages often appear to come from legitimate sources, such as banks, government agencies, or service providers, and use urgent or threatening language to persuade the recipients to take action12. In this scenario, the text message that claims to be from the payroll department is an example of smishing.
Impersonation is a type of social engineering technique that involves pretending to be someone else, such as an authority figure, a trusted person, or a colleague, to gain the trust or cooperation of the target. Impersonation can be done through various channels, such as phone calls, emails, text messages, or in-person visits, and can be used to obtain information, access, or money from the victim34. In this scenario, the text message that pretends to be from the payroll department is an example of impersonation.
* A. Typosquatting is a type of cyberattack that involves registering domain names that are similar to popular or well-known websites, but with intentional spelling errors or different extensions. Typosquatting aims to exploit the common mistakes that users make when typing web addresses, and redirect them to malicious or fraudulent sites that may steal their information, install malware, or display ads56. Typosquatting is not related to text messages or credential verification.
* B. Phishing is a type of social engineering technique that uses fraudulent emails to trick recipients into revealing sensitive information, clicking malicious links, or downloading malware. Phishing emails often mimic the appearance and tone of legitimate organizations, such as banks, retailers, or service providers, and use deceptive or urgent language to persuade the recipients to take action78. Phishing is not related to text messages or credential verification.
* D. Vishing is a type of social engineering technique that uses voice calls to trick victims into revealing sensitive information, such as passwords, credit card numbers, or bank account details. Vishing calls often appear to come from legitimate sources, such as law enforcement, government agencies, or technical support, and use scare tactics or false promises to persuade the recipients to comply9 . Vishing is not related to text messages or credential verification.
* F. Misinformation is a type of social engineering technique that involves spreading false or misleading information to influence the beliefs, opinions, or actions of the target. Misinformation can be used to manipulate public perception, create confusion, damage reputation, or promote an agenda . Misinformation is not related to text messages or credential verification.
References = 1: What is Smishing? | Definition and Examples | Kaspersky 2: Smishing - Wikipedia 3: Impersonation Attacks: What Are They and How Do You Protect Against
Them? 4: Impersonation - Wikipedia 5: What is Typosquatting? | Definition and Examples | Kaspersky 6: Typosquatting - Wikipedia 7: What is Phishing? | Definition and Examples | Kaspersky 8: Phishing - Wikipedia 9: What is Vishing? | Definition and Examples | Kaspersky : Vishing - Wikipedia : What is Misinformation? | Definition and Examples | Britannica : Misinformation - Wikipedia

NEW QUESTION 10
A software development manager wants to ensure the authenticity of the code created by the company. Which of the following options is the most appropriate?

A. Testing input validation on the user input fields
B. Performing code signing on company-developed software
C. Performing static code analysis on the software
D. Ensuring secure cookies are use

Answer: B

Explanation:
Code signing is a technique that uses cryptography to verify the authenticity and integrity of the code created by the company. Code signing involves applying a digital signature to the code using a private key that only the company possesses. The digital signature can be verified by anyone who has the corresponding public key, which can be distributed through a trusted certificate authority. Code signing can prevent unauthorized modifications, tampering, or malware injection into the code, and it can also assure the users that the code is from a legitimate source. References = CompTIA Security+ Study Guide with over 500 Practice Test Questions: Exam SY0-701, 9th Edition, Chapter 2, page 74. CompTIA Security+ (SY0-701) Certification Exam Objectives, Domain 3.2, page 11. Application Security – SY0-601 CompTIA Security+ : 3.2

NEW QUESTION 12
Which of the following has been implemented when a host-based firewall on a legacy Linux system allows connections from only specific internal IP addresses?

A. Compensating control
B. Network segmentation
C. Transfer of risk
D. SNMP traps

Answer: A

Explanation:
A compensating control is a security measure that is implemented to mitigate the risk of a vulnerability or a weakness that cannot be resolved by the primary control. A compensating control does not prevent or eliminate the vulnerability or weakness, but it can reduce the likelihood or impact of an attack. A host-based firewall on a legacy Linux system that allows connections from only specific internal IP addresses is an example of a compensating control, as it can limit the exposure of the system to potential threats from external or unauthorized sources. A host-based firewall is a software application that monitors and filters the

incoming and outgoing network traffic on a single host, based on a set of rules or policies. A legacy Linux system is an older version of the Linux operating system that may not be compatible with the latest security updates or patches, and may have known vulnerabilities or weaknesses that could be exploited by attackers. References = Security Controls – SY0-601 CompTIA Security+ : 5.1, Security Controls – CompTIA Security+ SY0-501 – 5.7, CompTIA Security+ Study Guide with over 500 Practice Test Questions: Exam SY0-701, 9th Edition, Chapter 5, page 240. CompTIA Security+ (SY0-701) Certification Exam Objectives, Domain 5.1, page 18.

NEW QUESTION 15

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 19

A company’s legal department drafted sensitive documents in a SaaS application and wants to ensure the documents cannot be accessed by individuals in high-risk countries. Which of the following is the most effective way to limit this access?

A. Data masking
B. Encryption
C. Geolocation policy
D. Data sovereignty regulation

Answer: C

Explanation:

A geolocation policy is a policy that restricts or allows access to data or resources based on the geographic location of the user or device. A geolocation policy can be implemented using various methods, such as IP address filtering, GPS tracking, or geofencing. A geolocation policy can help the company’s legal department to prevent unauthorized access to sensitive documents from individuals in high-risk countries12.

The other options are not effective ways to limit access based on location:

? Data masking: This is a technique of obscuring or replacing sensitive data with fictitious or anonymized data. Data masking can protect the privacy and confidentiality of data, but it does not prevent access to data based on location3.

? Encryption: This is a process of transforming data into an unreadable format using a secret key or algorithm. Encryption can protect the integrity and confidentiality of data, but it does not prevent access to data based on location. Encryption can also be bypassed by attackers who have the decryption key or method4.

? Data sovereignty regulation: This is a set of laws or rules that govern the storage, processing, and transfer of data within a specific jurisdiction or country. Data sovereignty regulation can affect the availability and compliance of data, but it does not prevent access to data based on location. Data sovereignty regulation can also vary depending on the country or region.

References = 1: CompTIA Security+ SY0-701 Certification Study Guide, page 972: Account Policies – SY0-601 CompTIA Security+ : 3.7, video by Professor Messer3: CompTIA Security+ SY0-701 Certification Study Guide, page 1004: CompTIA Security+ SY0-701 Certification Study Guide, page 101. : CompTIA Security+ SY0-701 Certification Study Guide, page 102.

NEW QUESTION 21

Which of the following scenarios describes a possible business email compromise attack?

A. An employee receives a gift card request in an email that has an executive's name in the display field of the email.
B. Employees who open an email attachment receive messages demanding payment in order to access files.
C. A service desk employee receives an email from the HR director asking for log-in credentials to a cloud administrator account.
D. An employee receives an email with a link to a phishing site that is designed to look like the company's email portal.

Answer: A

Explanation:

A business email compromise (BEC) attack is a type of phishing attack that targets employees who have access to company funds or sensitive information. The attacker impersonates a trusted person, such as an executive, a vendor, or a client, and requests a fraudulent payment, a wire transfer, or confidential data. The attacker often uses social engineering techniques, such as urgency, pressure, or familiarity, to convince the victim to comply with the request12.

In this scenario, option A describes a possible BEC attack, where an employee receives a gift card request in an email that has an executive’s name in the display field of the email. The email may look like it is coming from the executive, but the actual email address may be spoofed or compromised. The attacker may claim that the gift cards are needed for a business purpose, such as rewarding employees or clients, and ask the employee to purchase them and send the codes. This is a common tactic used by BEC attackers to steal money from unsuspecting victims34.

Option B describes a possible ransomware attack, where malicious software encrypts the files on a device and demands a ransom for the decryption key. Option C describes a possible credential harvesting attack, where an attacker tries to obtain the login information of a privileged account by posing as a legitimate authority. Option D describes a possible phishing attack, where an attacker tries to lure the victim to a fake website that mimics the company’s email portal and capture their credentials. These are all types of cyberattacks, but they are not examples of BEC attacks. References = 1: Business Email Compromise - CompTIA Security+ SY0-701 - 2.2 2: CompTIA Security+ SY0-701 Certification Study Guide 3: Business Email Compromise: The 12 Billion Dollar Scam 4: TOTAL: CompTIA Security+ Cert (SY0-701) | Udemy

NEW QUESTION 23

Which of the following is used to protect a computer from viruses, malware, and Trojans being installed and moving laterally across the network?

A. IDS
B. ACL
C. EDR
D. NAC

Answer: C

Explanation:
Endpoint detection and response (EDR) is a technology that monitors and analyzes the activity and behavior of endpoints, such as computers, laptops, mobile devices, and servers. EDR can help to detect and prevent malicious software, such as viruses, malware, and Trojans, from infecting the endpoints and spreading across the network. EDR can also provide visibility and response capabilities to contain and remediate threats. EDR is different from IDS, which is a network-based technology that monitors and alerts on network traffic anomalies. EDR is also different from ACL, which is a list of rules that control the access to network resources. EDR is also different from NAC, which is a technology that enforces policies on the network access of devices based on their identity and compliance status. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 2561

NEW QUESTION 25
During a security incident, the security operations team identified sustained network traffic from a malicious IP address: 10.1.4.9. A security analyst is creating an inbound firewall rule to block the IP address from accessing the organization’s network. Which of the following fulfills this request?

A. access-list inbound deny ig source 0.0.0.0/0 destination 10.1.4.9/32
B. access-list inbound deny ig source 10.1.4.9/32 destination 0.0.0.0/0
C. access-list inbound permit ig source 10.1.4.9/32 destination 0.0.0.0/0
D. access-list inbound permit ig source 0.0.0.0/0 destination 10.1.4.9/32

Answer: B

Explanation:
A firewall rule is a set of criteria that determines whether to allow or deny a packet to pass through the firewall. A firewall rule consists of several elements, such as the action, the protocol, the source address, the destination address, and the port number. The syntax of a firewall rule may vary depending on the type and vendor of the firewall, but the basic logic is the same. In this question, the security analyst is creating an inbound firewall rule to block the IP address 10.1.4.9 from accessing the organization’s network. This means that the action should be deny, the protocol should be any (or ig for IP), the source address should be 10.1.4.9/32 (which means a single IP address), the destination address should be 0.0.0.0/0 (which means any IP address), and the port number should be any.
Therefore, the correct firewall rule is:
access-list inbound deny ig source 10.1.4.9/32 destination 0.0.0.0/0
This rule will match any packet that has the source IP address of 10.1.4.9 and drop it. The other options are incorrect because they either have the wrong action, the wrong source address, or the wrong destination address. For example, option A has the source and destination addresses reversed, which means that it will block any packet that has the destination IP address of 10.1.4.9, which is not the intended goal. Option C has the wrong action, which is permit, which means that it will allow the packet to pass through the firewall, which is also not the intended goal. Option D has the same problem as option A, with the source and destination addresses reversed.
References = Firewall Rules – CompTIA Security+ SY0-401: 1.2, Firewalls – SY0-601 CompTIA Security+ : 3.3, Firewalls – CompTIA Security+ SY0-501, Understanding Firewall Rules – CompTIA Network+ N10-005: 5.5, Configuring Windows Firewall – CompTIA A+ 220-1102 – 1.6.

NEW QUESTION 30
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 33
Which of the following should a systems administrator use to ensure an easy deployment of resources within the cloud provider?

A. Software as a service
B. Infrastructure as code
C. Internet of Things
D. Software-defined networking

Answer: B

Explanation:
Infrastructure as code (IaC) is a method of using code and automation to manage and provision cloud resources, such as servers, networks, storage, and applications. IaC allows for easy deployment, scalability, consistency, and repeatability of cloud environments. IaC is also a key component of DevSecOps, which integrates security into the development and operations processes. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 6: Cloud and Virtualization Concepts, page 294.

NEW QUESTION 38
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 42
Which of the following is used to validate a certificate when it is presented to a user?

A. OCSP
B. CSR
C. CA
D. CRC

Answer: A

Explanation:
OCSP stands for Online Certificate Status Protocol. It is a protocol that allows applications to check the revocation status of a certificate in real-time. It works by sending a query to an OCSP responder, which is a server that maintains a database of revoked certificates. The OCSP responder returns a response that indicates whether the certificate is valid, revoked, or unknown. OCSP is faster and more efficient than downloading and parsing Certificate Revocation Lists (CRLs), which are large files that contain the serial numbers of all revoked certificates issued by a Certificate Authority (CA). References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 337 1

NEW QUESTION 44
A security practitioner completes a vulnerability assessment on a company's network and finds several vulnerabilities, which the operations team remediates. Which of the following should be done next?

A. Conduct an audit.
B. Initiate a penetration test.
C. Rescan the network.
D. Submit a report.

Answer: C

Explanation:
After completing a vulnerability assessment and remediating the identified vulnerabilities, the next step is to rescan the network to verify that the vulnerabilities have been successfully fixed and no new vulnerabilities have been introduced. A vulnerability assessment is a process of identifying and evaluating the weaknesses and exposures in a network, system, or application that could be exploited by attackers. A vulnerability assessment typically involves using automated tools, such as scanners, to scan the network and generate a report of the findings. The report may include information such as the severity, impact, and remediation of the vulnerabilities. The operations team is responsible for applying the appropriate patches, updates, or configurations to address the vulnerabilities and reduce the risk to the network. A rescan is necessary to confirm that the remediation actions have been effective and that the network is secure.
Conducting an audit, initiating a penetration test, or submitting a report are not the next steps after completing a vulnerability assessment and remediating the vulnerabilities. An audit is a process of reviewing and verifying the compliance of the network with the established policies, standards, and regulations. An audit may be performed by internal or external auditors, and it may use the results of the vulnerability assessment as part of the evidence. However, an audit is not a mandatory step after a vulnerability assessment, and it does not validate the effectiveness of the remediation actions.
A penetration test is a process of simulating a real-world attack on the network to test the security defenses and identify any gaps or weaknesses. A penetration test may use the results of the vulnerability assessment as a starting point, but it goes beyond scanning and involves exploiting the vulnerabilities to gain access or cause damage. A penetration test may be performed after a vulnerability assessment, but only with the proper authorization, scope, and rules of engagement. A penetration test is not a substitute for a rescan, as it does not verify that the vulnerabilities have been fixed.
Submitting a report is a step that is done after the vulnerability assessment, but before the remediation. The report is a document that summarizes the findings and recommendations of the vulnerability assessment, and it is used to communicate the results to the stakeholders and the operations team. The report may also include a follow-up plan and a timeline for the remediation actions. However, submitting a report is not the final step after the remediation, as it does not confirm that the network is secure.
References = CompTIA Security+ SY0-701 Certification Study Guide, page 372- 375; Professor Messer's CompTIA SY0-701 Security+ Training Course, video 4.1 - Vulnerability Scanning, 0:00 - 8:00.

NEW QUESTION 45
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 49
A security manager created new documentation to use in response to various types of security incidents. Which of the following is the next step the manager should take?

A. Set the maximum data retention policy.
B. Securely store the documents on an air-gapped network.
C. Review the documents' data classification policy.
D. Conduct a tabletop exercise with the team.

Answer: D

Explanation:
A tabletop exercise is a simulated scenario that tests the effectiveness of a security incident response plan. It involves gathering the relevant stakeholders and walking through the steps of the plan, identifying any gaps or issues that need to be addressed. A tabletop exercise is a good way to validate the documentation created by the security manager and ensure that the team is prepared for various types of security incidents. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 6: Risk Management, page 2841. CompTIA Security+ Certification Kit: Exam SY0-701, 7th Edition, Chapter 6: Risk Management, page 2842.

NEW QUESTION 53
A security administrator is deploying a DLP solution to prevent the exfiltration of sensitive customer data. Which of the following should the administrator do first?

A. Block access to cloud storage websites.
B. Create a rule to block outgoing email attachments.
C. Apply classifications to the data.
D. Remove all user permissions from shares on the file server.

Answer: C

Explanation:
Data classification is the process of assigning labels or tags to data based on its sensitivity, value, and risk. Data classification is the first step in a data loss prevention (DLP) solution, as it helps to identify what data needs to be protected and how. By applying classifications to the data, the security administrator can define appropriate policies and rules for the DLP solution to prevent the exfiltration of sensitive customer data. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 8: Data Protection, page 323. CompTIA Security+ Practice Tests: Exam SY0-701, 3rd Edition, Chapter 8: Data Protection, page 327.

NEW QUESTION 56
A company is discarding a classified storage array and hires an outside vendor to complete the disposal. Which of the following should the company request from the vendor?

A. Certification
B. Inventory list
C. Classification
D. Proof of ownership

Answer: A

Explanation:
The company should request a certification from the vendor that confirms the storage array has been disposed of securely and in compliance with the company's policies and standards. A certification provides evidence that the vendor has followed the proper procedures and methods to destroy the classified data and prevent unauthorized access or recovery. A certification may also include details such as the date, time, location, and method of disposal, as well as the names and signatures of the personnel
involved. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 3, page 1441

NEW QUESTION 59
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 61
An administrator discovers that some files on a database server were recently encrypted. The administrator sees from the security logs that the data was last accessed by a domain user. Which of the following best describes the type of attack that occurred?

A. Insider threat
B. Social engineering
C. Watering-hole
D. Unauthorized attacker

Answer: A

Explanation:
An insider threat is a type of attack that originates from someone who has legitimate access to an organization's network, systems, or data. In this case, the domain user who encrypted the files on the database server is an example of an insider threat, as they abused their access privileges to cause harm to the organization. Insider threats can be motivated by various factors, such as financial gain, revenge, espionage, or sabotage. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 1: General Security Concepts, page 251. CompTIA Security+ Certification Kit: Exam SY0- 701, 7th Edition, Chapter 1: General Security Concepts, page 252.

NEW QUESTION 65
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 69
An organization would like to store customer data on a separate part of the network that is not accessible to users on the main corporate network. Which of the following should the administrator use to accomplish this goal?

A. Segmentation
B. Isolation
C. Patching
D. Encryption

Answer: A

Explanation:
Segmentation is a network design technique that divides the network into smaller and isolated segments based on logical or physical boundaries. Segmentation can help improve network security by limiting the scope of an attack, reducing the attack surface, and enforcing access control policies. Segmentation can also enhance network performance, scalability, and manageability. To accomplish the goal of storing customer data on a separate part of the network, the administrator can use segmentation technologies such as subnetting, VLANs, firewalls, routers, or switches. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 308-309 1

NEW QUESTION 74
A systems administrator set up a perimeter firewall but continues to notice suspicious connections between internal endpoints. Which of the following should be set up in order to mitigate the threat posed by the suspicious activity?

A. Host-based firewall
B. Web application firewall
C. Access control list
D. Application allow list

Answer: A

Explanation:
A host-based firewall is a software application that runs on an individual endpoint and filters the incoming and outgoing network traffic based on a set of rules. A host-based firewall can help to mitigate the threat posed by suspicious connections between internal endpoints by blocking or allowing the traffic based on the source, destination, port, protocol, or application. A host-based firewall is different from a web application firewall, which is a type of firewall that protects web applications from common web-based attacks, such as SQL injection, cross-site scripting, and session hijacking. A host-based firewall is also different from an access control list, which is a list of rules that control the access to network resources, such as files, folders, printers, or routers. A host- based firewall is also different from an application allow list, which is a list of applications that are authorized to run on an endpoint, preventing unauthorized or malicious applications from executing. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 254

NEW QUESTION 78
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