CompTIA

Exam Questions SY0-701

CompTIA Security+ Exam

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NEW QUESTION 1
Employees in the research and development business unit receive extensive training to ensure they understand how to best protect company data. Which of the following is the type of data these employees are most likely to use in day-to-day work activities?

A. Encrypted
B. Intellectual property
C. Critical
D. Data in transit

Answer: B

Explanation:
Intellectual property is a type of data that consists of ideas, inventions, designs, or other creative works that have commercial value and are protected by law. Employees in the research and development business unit are most likely to use intellectual property data in their day-to-day work activities, as they are involved in creating new products or services for the company. Intellectual property data needs to be protected from unauthorized use, disclosure, or theft, as it can give the company a competitive advantage in the market. Therefore, these employees receive extensive training to ensure
they understand how to best protect this type of data. References = CompTIA Security+ SY0-701 Certification Study Guide, page 90; Professor Messer's CompTIA SY0-701 Security+ Training Course, video 1.2 - Security Concepts, 7:57 - 9:03.

NEW QUESTION 2
Which of the following is the best reason to complete an audit in a banking environment?

A. Regulatory requirement
B. Organizational change
C. Self-assessment requirement
D. Service-level requirement

Answer: A

Explanation:
A regulatory requirement is a mandate imposed by a government or an authority that must be followed by an organization or an individual. In a banking environment, audits are often required by regulators to ensure compliance with laws, standards, and policies related to security, privacy, and financial reporting. Audits help to identify and correct any gaps or weaknesses in the security posture and the internal controls of the organization. References:
? Official CompTIA Security+ Study Guide (SY0-701), page 507
? Security+ (Plus) Certification | CompTIA IT Certifications 2

NEW QUESTION 3
Which of the following must be considered when designing a high-availability network? (Choose two).

A. Ease of recovery
B. Ability to patch
C. Physical isolation
D. Responsiveness
E. Attack surface
F. Extensible authentication

Answer: AE

Explanation:
A high-availability network is a network that is designed to minimize downtime and ensure continuous operation even in the event of a failure or disruption. A high-availability network must consider the following factors12:
? Ease of recovery: This refers to the ability of the network to restore normal functionality quickly and efficiently after a failure or disruption. Ease of recovery can be achieved by implementing backup and restore procedures, redundancy and failover mechanisms, fault tolerance and resilience, and disaster recovery plans.
? Attack surface: This refers to the amount of exposure and vulnerability of the network to potential threats and attacks. Attack surface can be reduced by implementing security controls such as firewalls, encryption, authentication, access control, segmentation, and hardening.
The other options are not directly related to high-availability network design:
? Ability to patch: This refers to the process of updating and fixing software components to address security issues, bugs, or performance improvements. Ability to patch is important for maintaining the security and functionality of the network, but it is not a specific factor for high-availability network design.
? Physical isolation: This refers to the separation of network components or devices from other networks or physical environments. Physical isolation can enhance the security and performance of the network, but it can also reduce the availability and accessibility of the network resources.
? Responsiveness: This refers to the speed and quality of the network's performance and service delivery. Responsiveness can be measured by metrics such as latency, throughput, jitter, and packet loss. Responsiveness is important for ensuring customer satisfaction and user experience, but it is not a specific factor for high-availability network design.
? Extensible authentication: This refers to the ability of the network to support multiple and flexible authentication methods and protocols. Extensible authentication can improve the security and convenience of the network, but it is not a specific factor for high-availability network design.
References = 1: CompTIA Security+ SY0-701 Certification Study Guide, page 972: High Availability – CompTIA Security+ SY0-701 – 3.4, video by Professor Messer.

NEW QUESTION 4
An engineer needs to find a solution that creates an added layer of security by preventing unauthorized access to internal company resources. Which of the following would be the best solution?

A. RDP server
B. Jump server
C. Proxy server
D. Hypervisor

Answer: B

Explanation:
= A jump server is a server that acts as an intermediary between a user and a target system. A jump server can provide an added layer of security by preventing unauthorized access to internal company resources. A user can connect to the jump server using a secure protocol, such as SSH, and then access the target system from the jump server. This way, the target system is isolated from the external network and only accessible through the jump server. A jump server can also enforce security policies, such as authentication, authorization, logging, and auditing, on the user's connection. A jump server is also known as a bastion host or a jump box. References = CompTIA Security+ Certification Exam Objectives, Domain 3.3: Given a scenario, implement secure network architecture concepts. CompTIA Security+ Study Guide (SY0-701), Chapter 3: Network Architecture and Design, page 101. Other Network Appliances – SY0-601 CompTIA Security+ : 3.3, Video 3:03. CompTIA Security+ Certification Exam SY0-701 Practice Test 1, Question 2.

NEW QUESTION 5
Which of the following can best protect against an employee inadvertently installing malware on a company system?

A. Host-based firewall
B. System isolation
C. Least privilege
D. Application allow list

Answer: D

Explanation:
An application allow list is a security technique that specifies which applications are authorized to run on a system and blocks all other applications. An application allow list can best protect against an employee inadvertently installing malware on a company system because it prevents the execution of any unauthorized or malicious software, such as viruses, worms, trojans, ransomware, or spyware. An application allow list can also reduce the attack surface and improve the performance of the
system. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 11: Secure Application Development, page 551 1

NEW QUESTION 6
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 7
An enterprise is trying to limit outbound DNS traffic originating from its internal network. Outbound DNS requests will only be allowed from one device with the IP address 10.50.10.25. Which of the following firewall ACLs will accomplish this goal?

A. Access list outbound permit 0.0.0.0/0 0.0.0.0/0 port 53 Access list outbound deny 10.50.10.25/32 0.0.0.0/0 port 53
B. Access list outbound permit 0.0.0.0/0 10.50.10.25/32 port 53 Access list outbound deny 0.0.0.0/0 0.0.0.0/0 port 53
C. Access list outbound permit 0.0.0.0/0 0.0.0.0/0 port 53Access list outbound deny 0.0.0.0/0 10.50.10.25/32 port 53
D. Access list outbound permit 10.50.10.25/32 0.0.0.0/0 port 53 Access list outbound deny 0.0.0.0/0 0.0.0.0/0 port 53

Answer: D

Explanation:
A firewall ACL (access control list) is a set of rules that determines which traffic is allowed or denied by the firewall. The rules are processed in order, from top to bottom, until a match is found. The syntax of a firewall ACL rule is:
Access list <direction> <action> <source address> <destination address> <protocol>
<port>
To limit outbound DNS traffic originating from the internal network, the firewall ACL should allow only the device with the IP address 10.50.10.25 to send DNS requests to any destination on port 53, and deny all other outbound traffic on port 53. The correct firewall ACL is:
Access list outbound permit 10.50.10.25/32 0.0.0.0/0 port 53 Access list outbound deny 0.0.0.0/0 0.0.0.0/0 port 53
The first rule permits outbound traffic from the source address 10.50.10.25/32 (a single host) to any destination address (0.0.0.0/0) on port 53 (DNS). The second rule denies all other outbound traffic on port 532.
References: CompTIA Security+ Certification Kit: Exam SY0-701, 7th Edition, Chapter 4, page 175.

NEW QUESTION 8

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 9
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 10
A security operations center determines that the malicious activity detected on a server is normal. Which of the following activities describes the act of ignoring detected activity in the future?

A. Tuning
B. Aggregating
C. Quarantining
D. Archiving

Answer: A

Explanation:
Tuning is the activity of adjusting the configuration or parameters of a security tool or system to optimize its performance and reduce false positives or false negatives. Tuning can help to filter out the normal or benign activity that is detected by the security tool or system, and focus on the malicious or anomalous activity that requires further investigation or response. Tuning can also help to improve the efficiency and effectiveness of the security operations center by reducing the workload and alert fatigue of
the analysts. Tuning is different from aggregating, which is the activity of collecting and combining data from multiple sources or sensors to provide a comprehensive view of the security posture. Tuning is also different from quarantining, which is the activity of isolating a potentially infected or compromised device or system from the rest of the network to prevent further damage or spread. Tuning is also different from archiving, which is the activity of storing and preserving historical data or records for future reference or compliance. The act of ignoring detected activity in the future that is deemed normal by the security operations center is an example of tuning, as it involves modifying the settings or rules of the security tool or system to exclude the activity from the detection scope. Therefore, this is the best answer among the given options. References = Security Alerting and Monitoring Concepts and Tools – CompTIA Security+ SY0-701: 4.3, video at
7:00; CompTIA Security+ SY0-701 Certification Study Guide, page 191.

NEW QUESTION 10
Malware spread across a company's network after an employee visited a compromised industry blog. Which of the following best describes this type of attack?

A. Impersonation
B. Disinformation
C. Watering-hole
D. Smishing

Answer: C

Explanation:
A watering-hole attack is a type of cyberattack that targets groups of users by infecting websites that they commonly visit. The attackers exploit vulnerabilities to deliver a malicious payload to the organization’s network. The attack aims to infect users’ computers and gain access to a connected corporate network. The attackers target websites known to be popular among members of a particular organization or demographic. The attack differs from phishing and spear-phishing attacks, which typically attempt to steal data or install malware onto users’ devices1
In this scenario, the compromised industry blog is the watering hole that the attackers used to spread malware across the company’s network. The attackers likely chose this blog because they knew that the employees of the company were interested in its content and visited it frequently. The attackers may have injected malicious code into the blog or redirected the visitors to a spoofed website that hosted the malware. The malware then infected the employees’ computers and propagated to the network.

References1: Watering Hole Attacks: Stages, Examples, Risk Factors & Defense …

NEW QUESTION 12
Which of the following enables the use of an input field to run commands that can view or manipulate data?

A. Cross-site scripting
B. Side loading
C. Buffer overflow
D. SQL injection

Answer: D

Explanation:
= SQL injection is a type of attack that enables the use of an input field to run commands that can view or manipulate data in a database. SQL stands for Structured Query Language, which is a language used to communicate with databases. By injecting malicious SQL statements into an input field, an attacker can bypass authentication, access sensitive information, modify or delete data, or execute commands on the server.
SQL injection is one of the most common and dangerous web application
vulnerabilities. References = CompTIA Security+ Study Guide with over 500 Practice Test Questions: Exam SY0-701, 9th Edition, Chapter 5, page 195. CompTIA Security+ SY0-701 Exam Objectives, Domain 1.1, page 8.

NEW QUESTION 17
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 19
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 21
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 26
An administrator notices that several users are logging in from suspicious IP addresses. After speaking with the users, the administrator determines that the employees were not logging in from those IP addresses and resets the affected users' passwords. Which of the following should the administrator implement to prevent this type of attack from succeeding in the future?

A. Multifactor authentication
B. Permissions assignment
C. Access management
D. Password complexity

Answer: A

Explanation:
The correct answer is A because multifactor authentication (MFA) is a method of verifying a user's identity by requiring more than one factor, such as something the user knows (e.g., password), something the user has (e.g., token), or something the user is (e.g., biometric). MFA can prevent unauthorized access even if the user's password is compromised, as the attacker would need to provide another factor to log in. The other options are incorrect because they do not address the root cause of the attack, which is weak authentication. Permissions assignment (B) is the process of granting or denying access to resources based on the user's role or identity. Access management © is the process of controlling who can access what and under what conditions. Password complexity (D) is the requirement of using strong passwords that are hard to guess or crack, but it does not prevent an attacker from using a stolen password. References = You can learn more about multifactor authentication and other security concepts in the following resources:
? CompTIA Security+ SY0-701 Certification Study Guide, Chapter 1: General Security Concepts1
? Professor Messer's CompTIA SY0-701 Security+ Training Course, Section 1.2: Security Concepts2
? Multi-factor Authentication – SY0-601 CompTIA Security+ : 2.43
? TOTAL: CompTIA Security+ Cert (SY0-701) | Udemy, Section 3: Identity and Access Management, Lecture 15: Multifactor Authentication4
? CompTIA Security+ Certification SY0-601: The Total Course [Video], Chapter 3: Identity and Account Management, Section 2: Enabling Multifactor Authentication5

NEW QUESTION 31
Which of the following exercises should an organization use to improve its incident response process?

A. Tabletop
B. Replication
C. Failover
D. Recovery

Answer: A

Explanation:
A tabletop exercise is a simulated scenario that tests the organization's incident response plan and procedures. It involves key stakeholders and decision-makers who discuss their roles and actions in response to a hypothetical incident. It can help identify gaps, weaknesses, and improvement areas in the incident response process. It can also enhance communication, coordination, and collaboration among the
participants. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 525 1

NEW QUESTION 32

Which of the following describes a security alerting and monitoring tool that collects system, application, and network logs from multiple sources in a centralized system?

A. SIEM
B. DLP
C. IDS
D. SNMP

Answer: A

Explanation:
SIEM stands for Security Information and Event Management. It is a security alerting and monitoring tool that collects system, application, and network logs from multiple sources in a centralized system. SIEM can analyze the collected data, correlate events, generate alerts, and provide reports and dashboards. SIEM can also integrate with other security tools and support compliance requirements. SIEM helps organizations to detect and respond to cyber threats, improve security posture, and reduce operational costs. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 10: Monitoring and Auditing, page 393. CompTIA Security+ Practice Tests: Exam SY0-701, 3rd Edition, Chapter 10: Monitoring and Auditing, page 397.

NEW QUESTION 36
Which of the following actions could a security engineer take to ensure workstations and servers are properly monitored for unauthorized changes and software?

A. Configure all systems to log scheduled tasks.
B. Collect and monitor all traffic exiting the network.
C. Block traffic based on known malicious signatures.
D. Install endpoint management software on all systems.

Answer: D

Explanation:
Endpoint management software is a tool that allows security engineers to monitor and control the configuration, security, and performance of workstations and servers from a central console. Endpoint management software can help detect and prevent unauthorized changes and software installations, enforce policies and compliance, and provide reports and alerts on the status of the endpoints. The other options are not as effective or comprehensive as endpoint management software for this
purpose. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page
137 1

NEW QUESTION 40
A security engineer is implementing FDE for all laptops in an organization. Which of the following are the most important for the engineer to consider as part of the planning process? (Select two).

A. Key escrow
B. TPM presence
C. Digital signatures
D. Data tokenization
E. Public key management
F. Certificate authority linking

Answer: AB

Explanation:
? Key escrow is a method of storing encryption keys in a secure location, such as a trusted third party or a hardware security module (HSM). Key escrow is important for FDE because it allows the recovery of encrypted data in case of lost or forgotten passwords, device theft, or hardware failure. Key escrow also enables authorized access to encrypted data for legal or forensic purposes.
? TPM presence is a feature of some laptops that have a dedicated chip for storing encryption keys and other security information. TPM presence is important for FDE because it enhances the security and performance of encryption by generating and protecting the keys within the chip, rather than relying on software or external devices. TPM presence also enables features such as secure boot, remote attestation, and device authentication.

NEW QUESTION 44
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 47
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 51
A newly identified network access vulnerability has been found in the OS of legacy IoT devices. Which of the following would best mitigate this vulnerability quickly?

A. Insurance
B. Patching
C. Segmentation
D. Replacement

Answer: C

Explanation:
Segmentation is a technique that divides a network into smaller subnetworks or segments, each with its own security policies and controls. Segmentation can help mitigate network access vulnerabilities in legacy IoT devices by isolating them from other devices and systems, reducing their attack surface and limiting the potential impact of a breach. Segmentation can also improve network performance and efficiency by reducing congestion and traffic. Patching, insurance, and replacement are other possible strategies to deal with network access vulnerabilities, but they may not be feasible or effective in the short term. Patching may not be available or compatible for legacy IoT devices, insurance may not cover the costs or damages of a cyberattack, and replacement may be expensive and time-consuming. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 142-143

NEW QUESTION 54
Which of the following are cases in which an engineer should recommend the decommissioning of a network device? (Select two).

A. The device has been moved from a production environment to a test environment.
B. The device is configured to use cleartext passwords.
C. The device is moved to an isolated segment on the enterprise network.
D. The device is moved to a different location in the enterprise.
E. The device's encryption level cannot meet organizational standards.
F. The device is unable to receive authorized updates.

Answer: E

Explanation:
An engineer should recommend the decommissioning of a network device when the device poses a security risk or a compliance violation to the enterprise environment. A device that cannot meet the encryption standards or receive authorized updates is vulnerable to attacks and breaches, and may expose sensitive data or compromise network integrity. Therefore, such a device should be removed from the network and replaced with a more secure and updated one.
References
? CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 2, Section 2.2, page 671
? CompTIA Security+ Practice Tests: Exam SY0-701, 3rd Edition, Chapter 2,
Question 16, page 512

NEW QUESTION 58
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 61
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 63
A systems administrator receives the following alert from a file integrity monitoring tool: The hash of the cmd.exe file has changed.
The systems administrator checks the OS logs and notices that no patches were applied in the last two months. Which of the following most likely occurred?

A. The end user changed the file permissions.
B. A cryptographic collision was detected.
C. A snapshot of the file system was taken.
D. A rootkit was deployed.

Answer: D

Explanation:
A rootkit is a type of malware that modifies or replaces system files or processes to hide its presence and activity. A rootkit can change the hash of the cmd.exe file, which is a command-line interpreter for Windows systems, to avoid detection by antivirus or file integrity monitoring tools. A rootkit can also grant the attacker remote access and control over the infected system, as well as perform malicious actions such as stealing data, installing backdoors, or launching attacks on other systems. A rootkit is one of the most difficult types of malware to remove, as it can persist even after rebooting or
reinstalling the OS. References = CompTIA Security+ Study Guide with over 500 Practice
Test Questions: Exam SY0-701, 9th Edition, Chapter 4, page 147. CompTIA Security+ SY0-701 Exam Objectives, Domain 1.2, page 9.

NEW QUESTION 66
Which of the following is used to quantitatively measure the criticality of a vulnerability?

A. CVE
B. CVSS
C. CIA
D. CERT

Answer: B

Explanation:
CVSS stands for Common Vulnerability Scoring System, which is a framework that provides a standardized way to assess and communicate the severity and risk of vulnerabilities. CVSS uses a set of metrics and formulas to calculate a numerical score ranging from 0 to 10, where higher scores indicate higher criticality. CVSS can help organizations prioritize remediation efforts and compare vulnerabilities across different systems and vendors. The other options are not used to measure the criticality of a
vulnerability, but rather to identify, classify, or report them. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 39

NEW QUESTION 71
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 76
Which of the following would be the best way to block unknown programs from executing?

A. Access control list
B. Application allow list.
C. Host-based firewall
D. DLP solution

Answer: B

Explanation:
An application allow list is a security technique that specifies which applications are permitted to run on a system or a network. An application allow list can block unknown programs from executing by only allowing the execution of programs that are explicitly authorized and verified. An application allow list can prevent malware, unauthorized software, or unwanted applications from running and compromising the security of the system or the network12.
The other options are not the best ways to block unknown programs from executing:
? Access control list: This is a security technique that specifies which users or groups are granted or denied access to a resource or an object. An access control list can control the permissions and privileges of users or groups, but it does not directly block unknown programs from executing13.
? Host-based firewall: This is a security device that monitors and filters the incoming and outgoing network traffic on a single host or system. A host-based firewall can block or allow network connections based on predefined rules, but it does not directly block unknown programs from executing1 .
? DLP solution: This is a security system that detects and prevents the unauthorized transmission or leakage of sensitive data. A DLP solution can protect the confidentiality and integrity of data, but it does not directly block unknown programs from executing1 .
References = 1: CompTIA Security+ SY0-701 Certification Study Guide, page 972: Application Whitelisting – CompTIA Security+ SY0-701 – 3.5, video by Professor Messer3: CompTIA Security+ SY0-701 Certification Study Guide, page 98. : CompTIA Security+ SY0-701 Certification Study Guide, page 99. : CompTIA Security+ SY0-701 Certification Study Guide, page 100.

NEW QUESTION 80
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 85
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 90
An organization is building a new backup data center with cost-benefit as the primary requirement and RTO and RPO values around two days. Which of the following types of sites is the best for this scenario?

A. Real-time recovery
B. Hot
C. Cold
D. Warm

Answer: C

Explanation:
A cold site is a type of backup data center that has the necessary infrastructure to support IT operations, but does not have any pre-configured hardware or software. A cold site is the cheapest option among the backup data center types, but it also has the longest recovery time objective (RTO) and recovery point objective (RPO) values. A cold site is suitable for scenarios where the cost-benefit is the primary requirement and the RTO and RPO values are not very stringent. A cold site can take up to two days or more to restore the normal operations after a disaster. References = CompTIA Security+ SY0-701 Certification Study Guide, page 387; Backup Types – SY0-601 CompTIA Security+ : 2.5, video at 4:50.

NEW QUESTION 93
An attacker posing as the Chief Executive Officer calls an employee and instructs the employee to buy gift cards. Which of the following techniques is the attacker using?

A. Smishing
B. Disinformation
C. Impersonating
D. Whaling

Answer: D

Explanation:
Whaling is a type of phishing attack that targets high-profile individuals, such as executives, celebrities, or politicians. The attacker impersonates someone with authority or influence and tries to trick the victim into performing an action, such as transferring money, revealing sensitive information, or clicking on a malicious link. Whaling is also called CEO fraud or business email compromise2.
References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 3, page 97.

NEW QUESTION 96
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 101
Which of the following is a hardware-specific vulnerability?

A. Firmware version
B. Buffer overflow
C. SQL injection
D. Cross-site scripting

Answer: A

Explanation:
Firmware is a type of software that is embedded in a hardware device, such as a router, a printer, or a BIOS chip. Firmware controls the basic functions and operations of the device, and it can be updated or modified by the manufacturer or the user. Firmware version is a hardware-specific vulnerability, as it can expose the device to security risks if it is outdated, corrupted, or tampered with. An attacker can exploit firmware vulnerabilities to gain unauthorized access, modify device settings, install malware, or cause damage to the device or the network. Therefore, it is important to keep firmware updated and verify its integrity and authenticity. References = CompTIA Security+ Study Guide with over 500 Practice Test Questions: Exam SY0-701, 9th Edition, Chapter 2, page 67. CompTIA Security+ SY0-701 Exam Objectives, Domain 2.1, page 10.

NEW QUESTION 102
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 104
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 106
During an investigation, an incident response team attempts to understand the source of an incident. Which of the following incident response activities describes this process?

A. Analysis
B. Lessons learned
C. Detection
D. Containment

Answer: A

Explanation:
Analysis is the incident response activity that describes the process of understanding the source of an incident. Analysis involves collecting and examining evidence, identifying the root cause, determining the scope and impact, and assessing the threat actor's motives and capabilities. Analysis helps the incident response team to formulate an appropriate response strategy, as well as to prevent or mitigate future incidents. Analysis is usually performed after detection and before containment, eradication, recovery, and lessons learned. References = CompTIA Security+ Study Guide with over 500 Practice Test Questions: Exam SY0-701, 9th Edition, Chapter 6, page 223. CompTIA Security+ SY0-701 Exam Objectives, Domain 4.2, page 13.

NEW QUESTION 108
Which of the following automation use cases would best enhance the security posture of an organization by rapidly updating permissions when employees leave a company?

A. Provisioning resources
B. Disabling access
C. Reviewing change approvals
D. Escalating permission requests

Answer: B

Explanation:
Disabling access is an automation use case that would best enhance the security posture of an organization by rapidly updating permissions when employees leave a company. Disabling access is the process of revoking or suspending the access rights of a user account, such as login credentials, email, VPN, cloud services, etc. Disabling access can prevent unauthorized or malicious use of the account by former employees or attackers who may have compromised the account. Disabling access can also reduce the attack surface and the risk of data breaches or leaks. Disabling access can be automated by using scripts, tools, or workflows that can trigger the action based on predefined events, such as employee termination, resignation, or transfer. Automation can ensure that the access is disabled in a timely, consistent, and efficient manner, without relying on manual intervention or human error.
References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 5: Identity and Access Management, page 2131. CompTIA Security+ Certification Kit: Exam SY0-701, 7th Edition, Chapter 5: Identity and Access Management, page 2132.

NEW QUESTION 109
Which of the following is the phase in the incident response process when a security analyst reviews roles and responsibilities?

A. Preparation
B. Recovery
C. Lessons learned
D. Analysis

Answer: A

Explanation:
Preparation is the phase in the incident response process when a security analyst reviews roles and responsibilities, as well as the policies and procedures for handling incidents. Preparation also involves gathering and maintaining the necessary tools, resources, and contacts for responding to incidents. Preparation can help a security analyst to be ready and proactive when an incident occurs, as well as to reduce the impact and duration of the incident.
Some of the activities that a security analyst performs during the preparation phase are:
? Defining the roles and responsibilities of the incident response team members, such as the incident manager, the incident coordinator, the technical lead, the communications lead, and the legal advisor.
? Establishing the incident response plan, which outlines the objectives, scope, authority, and procedures for responding to incidents, as well as the escalation and reporting mechanisms.
? Developing the incident response policy, which defines the types and categories of incidents, the severity levels, the notification and reporting requirements, and the roles and responsibilities of the stakeholders.
? Creating the incident response playbook, which provides the step-by-step guidance and checklists for handling specific types of incidents, such as denial-of-service, ransomware, phishing, or data breach.
? Acquiring and testing the incident response tools, such as network and host-based scanners, malware analysis tools, forensic tools, backup and recovery tools, and communication and collaboration tools.
? Identifying and securing the incident response resources, such as the incident response team, the incident response location, the evidence storage, and the external support.
? Building and maintaining the incident response contacts, such as the internal and external stakeholders, the law enforcement agencies, the regulatory bodies, and the media.
References:
? CompTIA Security+ SY0-701 Certification Study Guide, Chapter 6: Architecture and Design, Section 6.4: Secure Systems Design, p. 279-280
? CompTIA Security+ SY0-701 Certification Exam Objectives, Domain 3: Architecture and Design, Objective 3.5: Given a scenario, implement secure network architecture concepts, Sub-objective: Incident response, p. 16

NEW QUESTION 114
An organization recently updated its security policy to include the following statement:
Regular expressions are included in source code to remove special characters such as $, |, ;. &, `, and ? from variables set by forms in a web application.
Which of the following best explains the security technique the organization adopted by making this addition to the policy?

A. Identify embedded keys
B. Code debugging

C. Input validation
D. Static code analysis

Answer: C

Explanation:
Input validation is a security technique that checks the user input for any malicious or unexpected data before processing it by the application. Input validation can prevent various types of attacks, such as injection, cross-site scripting, buffer overflow, and command execution, that exploit the vulnerabilities in the application code. Input validation can be performed on both the client-side and the server-side, using methods such as whitelisting, blacklisting, filtering, sanitizing, escaping, and encoding. By including regular expressions in the source code to remove special characters from the variables set by the forms in the web application, the organization adopted input validation as a security technique. Regular expressions are patterns that match a specific set of characters or strings, and can be used to filter out any unwanted or harmful input. Special characters, such as $, |, ;, &, `, and ?, can be used by attackers to inject commands or scripts into the application, and cause damage or data theft. By removing these characters from the input, the organization can reduce the risk of such attacks.
Identify embedded keys, code debugging, and static code analysis are not the security techniques that the organization adopted by making this addition to the policy. Identify embedded keys is a process of finding and removing any hard-coded keys or credentials from the source code, as these can pose a security risk if exposed or compromised. Code debugging is a process of finding and fixing any errors or bugs in the source code, which can affect the functionality or performance of the application. Static code analysis is a process of analyzing the source code without executing it, to identify any vulnerabilities, flaws, or coding standards violations. These techniques are not related to the use of regular expressions to remove special characters from the input.
References = CompTIA Security+ SY0-701 Certification Study Guide, page 375-376; Professor Messer's CompTIA SY0-701 Security+ Training Course, video 4.1 - Vulnerability Scanning, 8:00 - 9:08; Application Security – SY0-601 CompTIA Security+ : 3.2, 0:00 - 2:00.

NEW QUESTION 119
An organization's internet-facing website was compromised when an attacker exploited a buffer overflow. Which of the following should the organization deploy to best protect against similar attacks in the future?

A. NGFW
B. WAF
C. TLS
D. SD-WAN

Answer: B

Explanation:
A buffer overflow is a type of software vulnerability that occurs when an application writes more data to a memory buffer than it can hold, causing the excess data to overwrite adjacent memory locations. This can lead to unexpected behavior, such as crashes, errors, or code execution. A buffer overflow can be exploited by an attacker to inject malicious code or commands into the application, which can compromise the security and functionality of the system. An organization's internet-facing website was compromised when an attacker exploited a buffer overflow. To best protect against similar attacks in the future, the organization should deploy a web application firewall (WAF). A WAF is a type of firewall that monitors and filters the traffic between a web application and the internet. A WAF can detect and block common web attacks, such as buffer overflows, SQL injections, cross-site scripting (XSS), and more. A WAF can also enforce security policies and rules, such as input validation, output encoding, and encryption. A WAF can provide a layer of protection for the web application, preventing attackers from exploiting its vulnerabilities and compromising its data. References = Buffer Overflows – CompTIA Security+ SY0-701
– 2.3, Web Application Firewalls – CompTIA Security+ SY0-701 – 2.4, [CompTIA Security+ Study Guide with over 500 Practice Test Questions: Exam SY0-701, 9th Edition]

NEW QUESTION 121
A security team is reviewing the findings in a report that was delivered after a third party performed a penetration test. One of the findings indicated that a web application form field is vulnerable to cross-site scripting. Which of the following application security techniques should the security analyst recommend the developer implement to prevent this vulnerability?

A. Secure cookies
B. Version control
C. Input validation
D. Code signing

Answer: C

Explanation:
Input validation is a technique that checks the user input for any malicious or unexpected data before processing it by the web application. Input validation can prevent cross-site scripting (XSS) attacks, which exploit the vulnerability of a web application to execute malicious scripts in the browser of a victim. XSS attacks can compromise the confidentiality, integrity, and availability of the web application and its users. Input validation can be implemented on both the client-side and the server-side, but server-side validation is more reliable and secure. Input validation can use various methods, such as whitelisting, blacklisting, filtering, escaping, encoding, and sanitizing the input data. References = CompTIA Security+ Study Guide with over 500 Practice Test Questions: Exam SY0-701, 9th Edition, Chapter 2, page 70. CompTIA Security+ (SY0-701) Certification Exam Objectives, Domain 3.2, page 11. Application Security – SY0-601 CompTIA Security+ : 3.2

NEW QUESTION 123
A technician needs to apply a high-priority patch to a production system. Which of the following steps should be taken first?

A. Air gap the system.
B. Move the system to a different network segment.
C. Create a change control request.
D. Apply the patch to the system.

Answer: C

Explanation:
= A change control request is a document that describes the proposed change to a system, the reason for the change, the expected impact, the approval process, the testing plan, the implementation plan, the rollback plan, and the communication plan. A change control request is a best practice for applying any patch to a production system, especially a high-priority one, as it ensures that the change is authorized, documented, tested, and communicated. A change control request also minimizes the risk of unintended consequences, such as system downtime, data loss, or security breaches. References = CompTIA Security+ Study Guide

with over 500 Practice Test Questions: Exam SY0-701, 9th Edition, Chapter 6, page 235. CompTIA Security+ SY0-701 Exam Objectives, Domain 4.1, page 13.

NEW QUESTION 127
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 129
A systems administrator wants to prevent users from being able to access data based on their responsibilities. The administrator also wants to apply the required access structure via a simplified format. Which of the following should the administrator apply to the site recovery resource group?

A. RBAC
B. ACL
C. SAML
D. GPO

Answer: A

Explanation:
RBAC stands for Role-Based Access Control, which is a method of restricting access to data and resources based on the roles or responsibilities of users. RBAC simplifies the management of permissions by assigning roles to users and granting access rights to roles, rather than to individual users. RBAC can help enforce the principle of least privilege and reduce the risk of unauthorized access or data leakage. The other options are not as suitable for the scenario as RBAC, as they either do not prevent access based on responsibilities, or do not apply a simplified format. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 133 1

NEW QUESTION 132
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 134
Which of the following is the most likely to be included as an element of communication in a security awareness program?

A. Reporting phishing attempts or other suspicious activities
B. Detecting insider threats using anomalous behavior recognition
C. Verifying information when modifying wire transfer data
D. Performing social engineering as part of third-party penetration testing

Answer: A

Explanation:
A security awareness program is a set of activities and initiatives that aim to educate and inform the users and employees of an organization about the security policies, procedures, and best practices. A security awareness program can help to reduce the human factor in security risks, such as social engineering, phishing, malware, data breaches, and insider threats. A security awareness program should include various elements of communication, such as newsletters, posters, videos, webinars, quizzes, games, simulations, and feedback mechanisms, to deliver the security messages and reinforce the security culture. One of the most likely elements of communication to be included in a security awareness program is reporting phishing attempts or other suspicious activities, as this can help to raise the awareness of the users and employees about the common types of cyberattacks and how to respond to them. Reporting phishing attempts or other suspicious activities can also help to alert the security team and enable them to take appropriate actions to prevent or mitigate the impact of the attacks. Therefore, this is the best answer among the given options.
The other options are not as likely to be included as elements of communication in a security awareness program, because they are either technical or operational

tasks that are not directly related to the security awareness of the users and employees. Detecting insider threats using anomalous behavior recognition is a technical task that involves using security tools or systems to monitor and analyze the activities and behaviors of the users and employees and identify any deviations or anomalies that may indicate malicious or unauthorized actions. This task is usually performed by the security team or the security operations center, and it does not require the communication or participation of the users and employees. Verifying information when modifying wire transfer data is an operational task that involves using verification methods, such as phone calls, emails, or digital signatures, to confirm the authenticity and accuracy of the information related to wire transfers, such as the account number, the amount, or the recipient. This task is usually performed by the financial or accounting department, and it does not involve the security awareness of the users and employees. Performing social engineering as part of third-party penetration testing is a technical task that involves using deception or manipulation techniques, such as phishing, vishing, or impersonation, to test the security posture and the vulnerability of the users and employees to social engineering attacks. This task is usually performed by external security professionals or consultants, and it does not require the communication or consent of the users and employees. Therefore, these options are not the best answer for this question. References = Security Awareness and Training –
CompTIA Security+ SY0-701: 5.2, video at 0:00; CompTIA Security+ SY0-701 Certification Study Guide, page 263.

NEW QUESTION 138
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 142
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 146
A cyber operations team informs a security analyst about a new tactic malicious actors are using to compromise networks.
SIEM alerts have not yet been configured. Which of the following best describes what the security analyst should do to identify this behavior?

A. [Digital forensics
B. E-discovery
C. Incident response
D. Threat hunting

Answer: D

Explanation:
Threat hunting is the process of proactively searching for signs of malicious activity or compromise in a network, rather than waiting for alerts or indicators of compromise (IOCs) to appear. Threat hunting can help identify new tactics, techniques, and procedures (TTPs) used by malicious actors, as well as uncover hidden or stealthy threats that may have evaded detection by security tools. Threat hunting requires a combination of skills, tools, and methodologies, such as hypothesis generation, data
collection and analysis, threat intelligence, and incident response. Threat hunting can also help improve the security posture of an organization by providing feedback and recommendations for security improvements. References = CompTIA Security+ Certification Exam Objectives, Domain 4.1: Given a scenario, analyze potential indicators of malicious activity. CompTIA Security+ Study Guide (SY0-701), Chapter 4: Threat Detection and Response, page 153. Threat Hunting – SY0-701 CompTIA Security+ : 4.1, Video 3:18. CompTIA Security+ Certification Exam SY0-701 Practice Test 1, Question 3.

NEW QUESTION 150
Which of the following is the best way to consistently determine on a daily basis whether security settings on servers have been modified?

A. Automation
B. Compliance checklist
C. Attestation
D. Manual audit

Answer: A

Explanation:
Automation is the best way to consistently determine on a daily basis whether security settings on servers have been modified. Automation is the process of using software, hardware, or other tools to perform tasks that would otherwise require human intervention or manual effort. Automation can help to improve the efficiency, accuracy, and consistency of security operations, as well as reduce human errors and costs. Automation can be used to monitor, audit, and enforce security settings on servers, such as firewall rules, encryption keys, access controls, patch levels, and configuration files. Automation can also alert security personnel of any changes or anomalies that may indicate a security breach or compromise12.
The other options are not the best ways to consistently determine on a daily basis whether security settings on servers have been modified:
? Compliance checklist: This is a document that lists the security requirements, standards, or best practices that an organization must follow or adhere to. A compliance checklist can help to ensure that the security settings on servers are aligned with the organizational policies and regulations, but it does not automatically detect or report any changes or modifications that may occur on a daily basis3.
? Attestation: This is a process of verifying or confirming the validity or accuracy of a statement, claim, or fact. Attestation can be used to provide assurance or evidence that the security settings on servers are correct and authorized, but it does not continuously monitor or audit any changes or modifications that may occur on a daily basis4.
? Manual audit: This is a process of examining or reviewing the security settings on servers by human inspectors or auditors. A manual audit can help to identify and correct any security issues or discrepancies on servers, but it is time-consuming, labor-intensive, and prone to human errors. A manual audit may not be feasible or practical to perform on a daily basis.
References = 1: CompTIA Security+ SY0-701 Certification Study Guide, page 1022: Automation and Scripting – CompTIA Security+ SY0-701 – 5.1, video by Professor Messer3: CompTIA Security+ SY0-701 Certification Study Guide, page 974: CompTIA Security+ SY0-701 Certification Study Guide, page 98. : CompTIA Security+ SY0-701 Certification Study Guide, page 99.

NEW QUESTION 151
A company hired a consultant to perform an offensive security assessment covering penetration testing and social engineering.
Which of the following teams will conduct this assessment activity?

A. White
B. Purple
C. Blue
D. Red

Answer: D

Explanation:
A red team is a group of security professionals who perform offensive security assessments covering penetration testing and social engineering. A red team simulates real-world attacks and exploits the vulnerabilities of a target organization, system, or network. A red team aims to test the effectiveness of the security controls, policies, and procedures of the target, as well as the awareness and response of the staff and the blue team. A red team can be hired as an external consultant or formed internally within the organization. References = CompTIA Security+ Study Guide with over 500 Practice Test Questions: Exam SY0-701, 9th Edition, Chapter 1, page 18. CompTIA Security+ (SY0-701) Certification Exam Objectives, Domain 1.8, page 4. Security Teams – SY0-601 CompTIA Security+ : 1.8

NEW QUESTION 154
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 155
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 159
An organization is struggling with scaling issues on its VPN concentrator and internet circuit due to remote work. The organization is looking for a software solution that will allow it to reduce traffic on the VPN and internet circuit, while still providing encrypted tunnel access to the data center and monitoring of remote employee internet traffic. Which of the following will help achieve these objectives?

A. Deploying a SASE solution to remote employees
B. Building a load-balanced VPN solution with redundant internet
C. Purchasing a low-cost SD-WAN solution for VPN traffic
D. Using a cloud provider to create additional VPN concentrators

Answer: A

Explanation:
SASE stands for Secure Access Service Edge. It is a cloud-based service that combines network and security functions into a single integrated solution. SASE can help reduce traffic on the VPN and internet circuit by providing secure and optimized access to the data center and cloud applications for remote employees. SASE can also monitor and enforce security policies on the remote employee internet traffic, regardless of their location or device. SASE can offer benefits such as lower costs, improved performance, scalability, and flexibility compared to traditional VPN solutions. References: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, page 457-458 1

NEW QUESTION 161
Which of the following threat actors is the most likely to use large financial resources to attack critical systems located in other countries?

A. Insider
B. Unskilled attacker
C. Nation-state
D. Hacktivist

Answer: C

Explanation:
A nation-state is a threat actor that is sponsored by a government or a political entity to conduct cyberattacks against other countries or organizations. Nation-states have large financial resources, advanced technical skills, and strategic objectives that may target critical systems such as military, energy, or infrastructure. Nation-states are often motivated by espionage, sabotage, or warfare12. References = 1: CompTIA Security+ SY0-701 Certification Study Guide, page 542: Threat Actors – CompTIA
Security+ SY0-701 – 2.1, video by Professor Messer.

NEW QUESTION 166
Which of the following is required for an organization to properly manage its restore process in the event of system failure?

A. IRP
B. DRP
C. RPO
D. SDLC

Answer: B

Explanation:
A disaster recovery plan (DRP) 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. A DRP typically includes the following elements:
? A risk assessment that identifies the potential threats and impacts to the organization’s critical assets and processes.
? A business impact analysis that prioritizes the recovery of the most essential functions and data.
? A recovery strategy that defines the roles and responsibilities of the recovery team, the resources and tools needed, and the steps to follow to restore the system.
? A testing and maintenance plan that ensures the DRP is updated and validated regularly. A DRP is required for an organization to properly manage its restore process in the event of system failure, as it provides a clear and structured framework for recovering from a disaster and minimizing the downtime and data loss. References = CompTIA Security+ Study Guide (SY0-701), Chapter 7: Resilience and Recovery, page 325.

NEW QUESTION 170
A network manager wants to protect the company's VPN by implementing multifactor authentication that uses:
. Something you know
. Something you have
. Something you are
Which of the following would accomplish the manager's goal?

A. Domain name, PKI, GeolP lookup
B. VPN IP address, company ID, facial structure
C. Password, authentication token, thumbprint
D. Company URL, TLS certificate, home address

Answer: C

Explanation:
The correct answer is C. Password, authentication token, thumbprint. This combination of authentication factors satisfies the manager’s goal of implementing multifactor authentication that uses something you know, something you have, and something you are.
? Something you know is a type of authentication factor that relies on the user’s knowledge of a secret or personal information, such as a password, a PIN, or a security question. A password is a common example of something you know that can be used to access a VPN12
? Something you have is a type of authentication factor that relies on the user’s possession of a physical object or device, such as a smart card, a token, or a

smartphone. An authentication token is a common example of something you have that can be used to generate a one-time password (OTP) or a code that can be used to access a VPN12
? Something you are is a type of authentication factor that relies on the user's biometric characteristics, such as a fingerprint, a face, or an iris. A thumbprint is a common example of something you are that can be used to scan and verify the user's identity to access a VPN12
References:
1: CompTIA Security+ Study Guide: Exam SY0-701, 9th Edition, Chapter 4: Identity and Access Management, page 177 2: CompTIA Security+ Certification Kit: Exam SY0-701, 7th Edition, Chapter 4: Identity and Access Management, page 179

NEW QUESTION 171
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 173
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