CompTIA

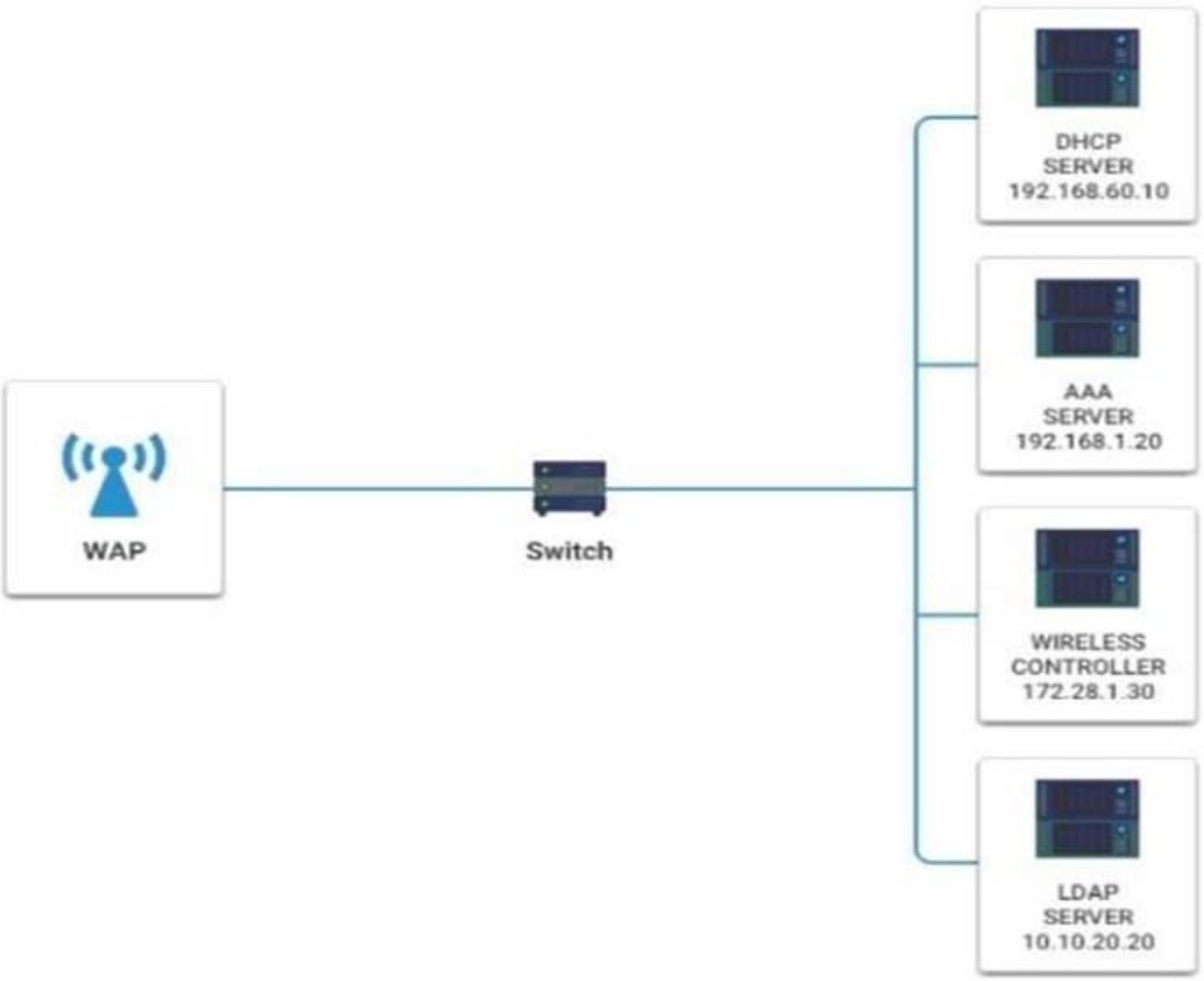
Exam Questions SY0-601

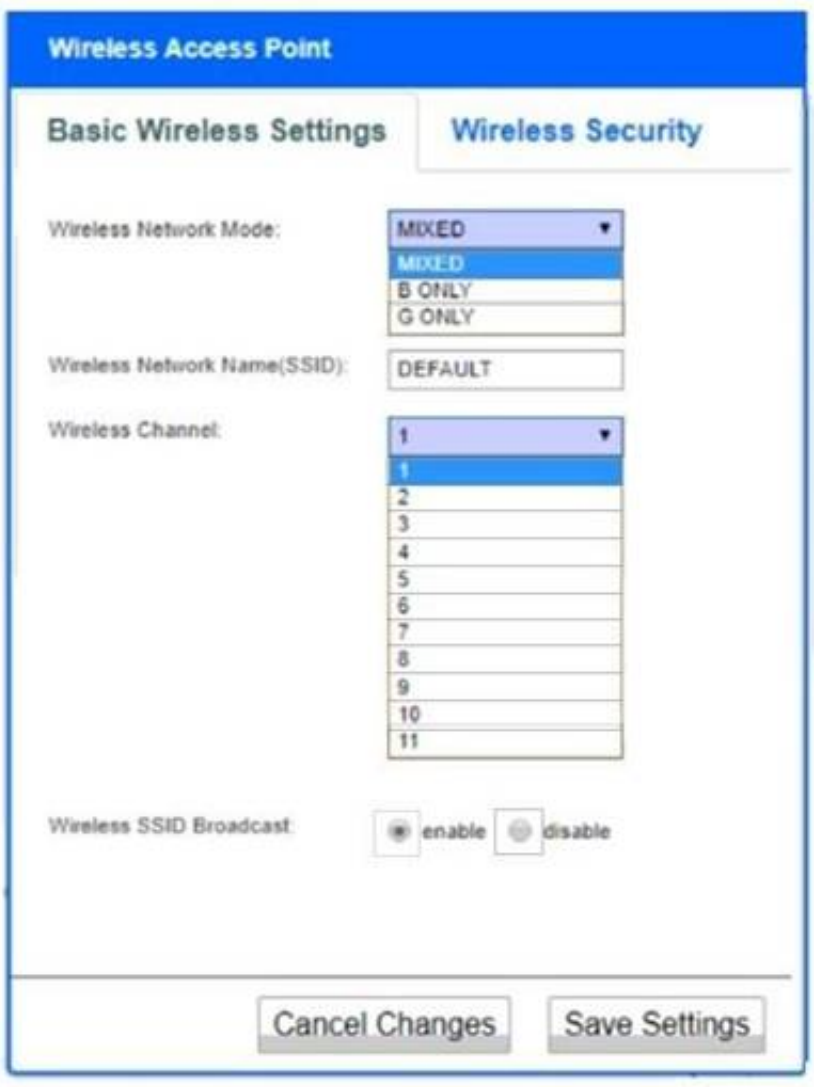
CompTIA Security+ Exam

NEW QUESTION 1
- (Exam Topic 3)
A newly purchased corporate WAP needs to be configured in the MOST secure manner possible. INSTRUCTIONS
Please click on the below items on the network diagram and configure them accordingly:

- WAP
- DHCP Server
- AAA Server
- Wireless Controller
- LDAP Server

If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.





A. Mastered

B. Not Mastered

Answer: A

Explanation:
Wireless Access Point Network Mode – G only Wireless Channel – 11
Wireless SSID Broadcast – disable Security settings – WPA2 Professional

NEW QUESTION 2
- (Exam Topic 3)
An annual information security has revealed that several OS-level configurations are not in compliance due to Outdated hardening standards the company is using Which Of the following would be best to use to update and reconfigure the OS.level security configurations?

A. CIS benchmarks
B. GDPR guidance
C. Regional regulations
D. ISO 27001 standards

Answer: A

Explanation:
CIS benchmarks are best practices and standards for securing various operating systems, applications, cloud environments, etc. They are developed by a community of experts and updated regularly to reflect the latest threats and vulnerabilities. They can be used to update and reconfigure the OS-level security configurations to ensure compliance and reduce risks

NEW QUESTION 3
- (Exam Topic 3)
A local server recently crashed, and the team is attempting to restore the server from a backup. During the restore process, the team notices the file size of each daily backup is large and will run out of space at the current rate.
The current solution appears to do a full backup every night. Which of the following would use the least amount of storage space for backups?

A. A weekly, incremental backup with daily differential backups
B. A weekly, full backup with daily snapshot backups
C. A weekly, full backup with daily differential backups
D. A weekly, full backup with daily incremental backups

Answer: D

Explanation:
A weekly, full backup with daily incremental backups would use the least amount of storage space for backups, as it would only store the changes made since the last backup, whether it is a full or incremental backup. Incremental backups are faster and use less storage space than full or differential backups, but they require more time and media to restore data. A full backup is a complete copy of all data, which requires more time and storage space to perform, but allows a faster and easier recovery. A differential backup is a copy of the data that changed since the last full backup, which requires less time and storage space than a full backup, but more than an incremental backup. A differential backup allows a faster recovery than an incremental backup, but slower than a full backup. References:
https://www.nakivo.com/blog/backup-types-explained/

NEW QUESTION 4
- (Exam Topic 3)
Which of the following tools can assist with detecting an employee who has accidentally emailed a file containing a customer's Pll?

A. SCAP
B. NetFlow
C. Antivirus
D. DLP

Answer: D

Explanation:
DLP stands for Data Loss Prevention, which is a technology that can monitor, detect and prevent the unauthorized transmission of sensitive data, such as PII (Personally Identifiable Information). DLP can be implemented on endpoints, networks, servers or cloud services to protect data in motion, in use or at rest. DLP can also block or alert on data transfers that violate predefined policies or rules. DLP is the best tool to assist with detecting an employee who has accidentally emailed a file containing a customer's PII, as it can scan the email content and attachments for any data that matches the criteria of PII and prevent the email from being sent or notify the administrator of the incident. Verified References:
Data Loss Prevention Guide to Blocking Leaks - CompTIA https://www.comptia.org/content/guides/data-loss-prevention-a-step-by-step-guide-to-blocking-leaks
Data Loss Prevention – SY0-601 CompTIA Security+ : 2.1 https://www.professormesser.com/security-plus/sy0-601/sy0-601-video/data-loss-prevention-4/
Data Loss Prevention – CompTIA Security+ SY0-501 – 2.1 https://www.professormesser.com/security-plus/sy0-501/data-loss-prevention-3/

NEW QUESTION 5
- (Exam Topic 3)
A company needs to centralize its logs to create a baseline and have visibility on its security events Which of the following technologies will accomplish this objective?

A. Security information and event management
B. A web application firewall
C. A vulnerability scanner
D. A next-generation firewall

Answer: A

Explanation:
Security information and event management (SIEM) is a solution that collects, analyzes, and correlates logs and events from various sources such as firewalls, servers, applications, etc., within an organization's network. It can centralize logs to create a baseline and have visibility on security events by providing a unified dashboard and reporting system for log management and security monitoring.

NEW QUESTION 6
- (Exam Topic 3)
An organization has expanded its operations by opening a remote office. The new office is fully furnished with office resources to support up to 50 employees working on any given day. Which of the following VPN solutions would best support the new office?

A. Always-on
B. Remote access
C. Site-to-site
D. Full tunnel

Answer: C

Explanation:
Site-to-site VPN is a type of VPN solution that connects two or more networks or sites across the public internet in a secure and encrypted way. Site-to-site VPN can be implemented using VPN appliances, such as firewalls or routers, that can establish and maintain the VPN tunnel between the sites. Site-to-site VPN can support multiple users or devices that need to access resources on the other site without requiring individual VPN clients or software. Site-to-site VPN is the best solution to support the new remote office, as it can provide secure and seamless connectivity between the office network and the main network of the organization.
Verified References:
- Virtual Private Networks – SY0-601 CompTIA Security+ : 3.3 https://www.professormesser.com/security-plus/sy0-601/sy0-601-video/virtual-private-networks-sy0-601- (See Site-to-Site VPN)
- VPN Technologies – CompTIA Security+ SY0-501 – 3.2 https://www.professormesser.com/security-plus/sy0-501/vpn-technologies/ (See Site-to-Site VPN)
- Security+ (Plus) Certification | CompTIA IT Certifications https://www.comptia.org/certifications/security (See Domain 3: Architecture and Design, Objective 3.3: Given a scenario, implement secure network architecture concepts.)

NEW QUESTION 7
- (Exam Topic 3)
Which of the following describes the exploitation of an interactive process to gain access to restricted areas?

A. Persistence
B. Port scanning
C. Privilege escalation
D. Pharming

Answer: C

Explanation:
Privilege escalation describes the exploitation of an interactive process to gain access to restricted areas. It is a type of attack that allows a normal user to obtain higher privileges or access rights on a system or network, such as administrative or root access. Privilege escalation can be achieved by exploiting a vulnerability, design flaw, or misconfiguration in the system or application. Privilege escalation can allow an attacker to perform unauthorized actions, such as accessing sensitive data, installing malware, or compromising other systems. References:
- https://www.professormesser.com/security-plus/sy0-601/sy0-601-video/privilege-escalation-3/
- https://www.linkedin.com/learning/comptia-security-plus-sy0-601-cert-prep-2-secure-code-design-and-im

NEW QUESTION 8
- (Exam Topic 3)
During an assessment, a systems administrator found several hosts running FTP and decided to immediately block FTP communications at the firewall. Which of the following describes the greatest risk associated with using FTP?

A. Private data can be leaked
B. FTP is prohibited by internal policy.
C. Users can upload personal files
D. Credentials are sent in cleartext.

Answer: D

Explanation:
Credentials are sent in cleartext is the greatest risk associated with using FTP. FTP is an old protocol that does not encrypt the data or the credentials that are transmitted over the network. This means that anyone who can capture the network traffic can see the usernames and passwords of the FTP users, as well as the files they are transferring. This can lead to data breaches, identity theft, and unauthorized access. Private data can be leaked (Option A) is a possible consequence of using FTP, but not the root cause of the risk. FTP is prohibited by internal policy (Option B) is a compliance issue, but not a technical risk. Users can upload personal files (Option C) is a management issue, but not a security risk
https://www.infosectrain.com/blog/comptia-security-sy0-601-domain-5-governance-risk-and-compliance/

NEW QUESTION 9
- (Exam Topic 3)
An organization has hired a security analyst to perform a penetration test The analyst captures 1Gb worth of inbound network traffic to the server and transfers the pcap back to the machine for analysis. Which of the following tools should the analyst use to further review the pcap?

A. Nmap
B. CURL

C. Neat
D. Wireshark

Answer: D

Explanation:
Wireshark is a tool that can analyze pcap files, which are files that capture network traffic. Wireshark can display the packets, protocols, and other details of the network traffic in a graphical user interface. Nmap is a tool that can scan networks and hosts for open ports and services. CURL is a tool that can transfer data from or to a server using various protocols. Neat is a tool that can test network performance and quality.

NEW QUESTION 10
- (Exam Topic 3)
Which of the following automation use cases would best enhance the security posture Of an organi-zation by rapidly updating permissions when employees leave a company Or change job roles inter-nally?

A. Provisioning resources
B. Disabling access
C. APIs
D. Escalating permission requests

Answer: B

Explanation:
Disabling access is an automation use case that can enhance the security posture of an organization by rapidly updating permissions when employees leave a company or change job roles internally. It can prevent unauthorized access and data leakage by revoking or modifying the access rights of employees based on their current status and role.

NEW QUESTION 10
- (Exam Topic 3)
A company's help desk has received calls about the wireless network being down and users being unable to connect to it The network administrator says all access points are up and running One of the help desk technicians notices the affected users are working in a building near the parking lot. Which of the following is the most likely reason for the outage?

A. Someone near the building is jamming the signal
B. A user has set up a rogue access point near the building
C. Someone set up an evil twin access point in the affected area.
D. The APs in the affected area have been unplugged from the network

Answer: A

Explanation:
Jamming is a type of denial-of-service attack that involves interfering with or blocking the wireless signal using a device that emits radio waves at the same frequency as the wireless network. It can cause the wireless network to be down and users to be unable to connect to it, especially if they are working in a building near the parking lot where someone could easily place a jamming device.

NEW QUESTION 13
- (Exam Topic 3)
A web architect would like to move a company's website presence to the cloud. One of the management team's key concerns is resiliency in case a cloud provider's data center or network connection goes down. Which of the following should the web architect consider to address this concern?

A. Containers
B. Virtual private cloud
C. Segmentation
D. Availability zones

Answer: D

Explanation:
Availability zones are the most appropriate cloud feature to address the concern of resiliency in case a cloud provider’s data center or network connection goes down. Availability zones are physically separate locations within an Azure region that have independent power, cooling, and networking. Each availability zone is made up of one or more data centers and houses infrastructure to support highly available, mission-critical applications. Availability zones are connected with high-speed, private fiber-optic networks. Azure services that support availability zones fall into two categories: Zonal services – you pin the resource to a specific zone (for example, virtual machines, managed disks, IP addresses), or Zone-redundant services – platform replicates automatically across zones (for example, zone-redundant storage, SQL Database). To achieve comprehensive business continuity on Azure, build your application architecture using the combination of availability zones with Azure region pairs. You can synchronously replicate your applications and data using availability zones within an Azure region for high-availability and asynchronously replicate across Azure regions for disaster recovery protection.

NEW QUESTION 16
- (Exam Topic 3)
Which of the following supplies non-repudiation during a forensics investigation?

A. Dumping volatile memory contents first
B. Duplicating a drive with dd
C. Using a SHA-2 signature of a drive image
D. Logging everyone in contact with evidence
E. Encrypting sensitive data

Answer: C

Explanation:
Using a SHA-2 signature of a drive image is a way to supply non-repudiation during a forensics investigation, as it can verify the integrity and authenticity of the data captured in the image. SHA-2 is a family of secure hash algorithms that can produce a unique and fixed-length digest of any input data. By hashing the drive image and comparing the signature with the original hash, the investigator can prove that the image has not been altered or tampered with since the time of acquisition. This can also help to identify the source of the data and prevent any denial from the suspect. References:

- https://www.professormesser.com/security-plus/sy0-601/sy0-601-video/managing-evidence/
- https://www.skillsoft.com/course/comptia-security-incident-response-digital-forensics-supporting-investig

NEW QUESTION 21
- (Exam Topic 3)
A report delivered to the Chief Information Security Officer (CISO) shows that some user credentials could be exfiltrated. The report also indicates that users tend to choose the same credentials on different systems and applications. Which of the following policies should the CISO use to prevent someone from using the exfiltrated credentials?

A. MFA
B. Lockout
C. Time-based logins
D. Password history

Answer: A

Explanation:
MFA stands for multi-factor authentication, which is a method of verifying a user's identity using two or more factors, such as something you know (e.g., password), something you have (e.g., token), or something you are (e.g., biometrics). MFA can prevent someone from using the exfiltrated credentials, as they would need to provide another factor besides the username and password to access the system or application. MFA can also alert the legitimate user of an unauthorized login attempt, allowing them to change their credentials or report the incident. References:

- https://www.comptia.org/certifications/security
- https://www.youtube.com/watch?v=yCJyPPvM-xg
- https://www.professormesser.com/security-plus/sy0-601/sy0-601-video/multi-factor-authentication-5/

NEW QUESTION 24
- (Exam Topic 3)
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: C

Explanation:
Least privilege is a security principle that states that users should only be granted the permissions they need to do their job. This helps to protect against malware infections by preventing users from installing unauthorized software.
A host-based firewall can help to protect against malware infections by blocking malicious traffic from reaching a computer. However, it cannot prevent a user from installing malware if they have the necessary permissions.
System isolation is the practice of isolating systems from each other to prevent malware from spreading. This can be done by using virtual machines or network segmentation. However, system isolation can be complex and expensive to implement.
An application allow list is a list of applications that are allowed to run on a computer. This can help to prevent malware infections by preventing users from running unauthorized applications. However, an application allow list can be difficult to maintain and can block legitimate applications.
Therefore, the best way to protect against an employee inadvertently installing malware on a company system is to use the principle of least privilege. This will help to ensure that users only have the permissions they need to do their job, which will reduce the risk of malware infections.
Here are some additional benefits of least privilege:

- It can help to improve security by reducing the attack surface.
- It can help to simplify security management by reducing the number of permissions that need to be managed.
- It can help to improve compliance by reducing the risk of data breaches.

NEW QUESTION 25
- (Exam Topic 3)
A company is auditing the manner in which its European customers' personal information is handled. Which of the following should the company consult?

A. GDPR
B. ISO
C. NIST
D. PCI DSS

Answer: A

Explanation:
GDPR stands for General Data Protection Regulation, which is a legal framework that sets guidelines for the collection and processing of personal information of individuals within the European Union (EU). GDPR also applies to organizations outside the EU that offer goods or services to, or monitor the behavior of, EU data subjects. GDPR aims to protect the privacy and rights of EU citizens and residents regarding their personal data. GDPR defines personal data as any information relating to an identified or identifiable natural person, such as name, identification number, location data, online identifiers, or any factors specific to the physical, physiological, genetic, mental, economic, cultural, or social identity of that person. A company that is auditing the manner in which its European customers' personal information is handled should consult GDPR to ensure compliance with its rules and obligations. References:

- https://www.gdpreu.org/the-regulation/key-concepts/personal-data/
-

https://ico.org.uk/for-organisations-2/guide-to-data-protection/guide-to-the-general-data-protection-regula

NEW QUESTION 26
- (Exam Topic 2)
A security administrator needs to add fault tolerance and load balancing to the connection from the file server to the backup storage. Which of the following is the best choice to achieve this objective?

A. Multipathing
B. RAID
C. Segmentation
D. 8021.1

Answer: A

Explanation:
to achieve the objective of adding fault tolerance and load balancing to the connection from the file server to the backup storage is multipathin1g. Multipathing is a technique that allows a system to use more than one path to access a storage device1. This can improve performance by distributing the workload across multiple paths, and also provide fault tolerance by switching to an alternative path if one path fails1. Multipathing can be implemented using software or hardware solutions1.

NEW QUESTION 28
- (Exam Topic 2)
A security administrator examines the ARP table of an access switch and sees the following output:

VLAN	MAC Address	Type	Ports
All	012b1283f77b	STATIC	CPU
All	c656da1009f1	STATIC	CPU
1	f9de6ed7d38f	DYNAMIC	Fa0/1
2	fb8d0ae3850b	DYNAMIC	Fa0/2
2	7f403b7cf59a	DYNAMIC	Fa0/2
2	f4182c262c61	DYNAMIC	Fa0/2

Which of the following is a potential threat that is occurring on this access switch?

A. DDoSonFa02 port
B. MAG flooding on Fa0/2 port
C. ARP poisoning on Fa0/1 port
D. DNS poisoning on port Fa0/1

Answer: C

Explanation:
ARP poisoning is a type of attack that exploits the ARP protocol to associate a malicious MAC address with a legitimate IP address on a network1. This allows the attacker to intercept, modify or drop traffic between the victim and other hosts on the same network. In this case, the ARP table of the access switch shows that the same MAC address (00-0c-29-58-35-3b) is associated with two different IP addresses (192.168.1.100 and 192.168.1.101) on port Fa0/12. This indicates that an attacker has poisoned the ARP table to redirect traffic intended for 192.168.1.100 to their own device with MAC address 00-0c-29-58-35-3b. The other options are not related to this scenario. DDoS is a type of attack that overwhelms a target with excessive traffic from multiple sources3. MAC flooding is a type of attack that floods a switch with fake MAC addresses to exhaust its MAC table and force it to operate as a hub4. DNS poisoning is a type of attack that corrupts the DNS cache with fake entries to redirect users to malicious websites.
References: 1: https://www.imperva.com/learn/application-security/arp-spoofing/ 2: https://community.cisco.com/t5/networking-knowledge-base/network-tables-mac-routing-arp/ta-p/4184148 3: https://www.imperva.com/learn/application-security/ddos-attack/ 4: https://www.imperva.com/learn/application-security/mac-flooding/ : https://www.imperva.com/learn/application-security/dns-spoofing-poisoning/

NEW QUESTION 31
- (Exam Topic 2)
A security operations technician is searching the log named /vax/messages for any events that were associated with a workstation with the IP address 10.1.1.1. Which of the following would provide this information?

A. cat /var/messages | grep 10.1.1.1
B. grep 10.1.1.1 | cat /var/messages
C. grep /var/messages | cat 10.1.1.1
D. cat 10.1.1.1 | grep /var/messages

Answer: A

Explanation:
the cat command reads the file and streams its content to standard output. The | symbol connects the output of the left command with the input of the right command. The grep command returns all lines that match the regex. The cut command splits each line into fields based on a delimiter and extracts a specific field.

NEW QUESTION 36
- (Exam Topic 2)
A global pandemic is forcing a private organization to close some business units and reduce staffing at others. Which of the following would be best to help the organization's executives determine their next course of action?

A. An incident response plan
B. A communication plan
C. A disaster recovery plan

D. A business continuity plan

Answer: D

Explanation:
A business continuity plan (BCP) is a document that outlines how an organization will continue its critical functions during and after a disruptive event, such as a natural disaster, pandemic, cyberattack, or power outage. A BCP typically covers topics such as business impact analysis, risk assessment, recovery strategies, roles and responsibilities, communication plan, testing and training, and maintenance and review. A BCP can help the organization's executives determine their next course of action by providing them with a clear framework and guidance for managing the crisis and resuming normal operations.
References: https://www.comptia.org/certifications/security#examdetails https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives https://www.ready.gov/business-continuity-plan

NEW QUESTION 40
- (Exam Topic 2)
A desktop computer was recently stolen from a desk located in the lobby of an office building. Which of the following would be the best way to secure a replacement computer and deter future theft?

A. Installing proximity card readers on all entryway doors
B. Deploying motion sensor cameras in the lobby
C. Encrypting the hard drive on the new desktop
D. Using cable locks on the hardware

Answer: D

Explanation:
Using cable locks on the hardware can be an effective way to secure a desktop computer and deter future theft. Cable locks are physical security devices that attach to the computer case and to a nearby stationary object, such as a desk or wall. This makes it more difficult for a thief to remove the computer without damaging it or attracting attention.
Installing proximity card readers on all entryway doors can enhance physical security by limiting access to authorized individuals. Deploying motion sensor cameras in the lobby can also help deter theft by capturing images of any unauthorized individuals entering the premises or attempting to steal the computer. Encrypting the hard drive on the replacement desktop can also help protect sensitive data in the event of theft, but it does not provide physical security for the device itself.

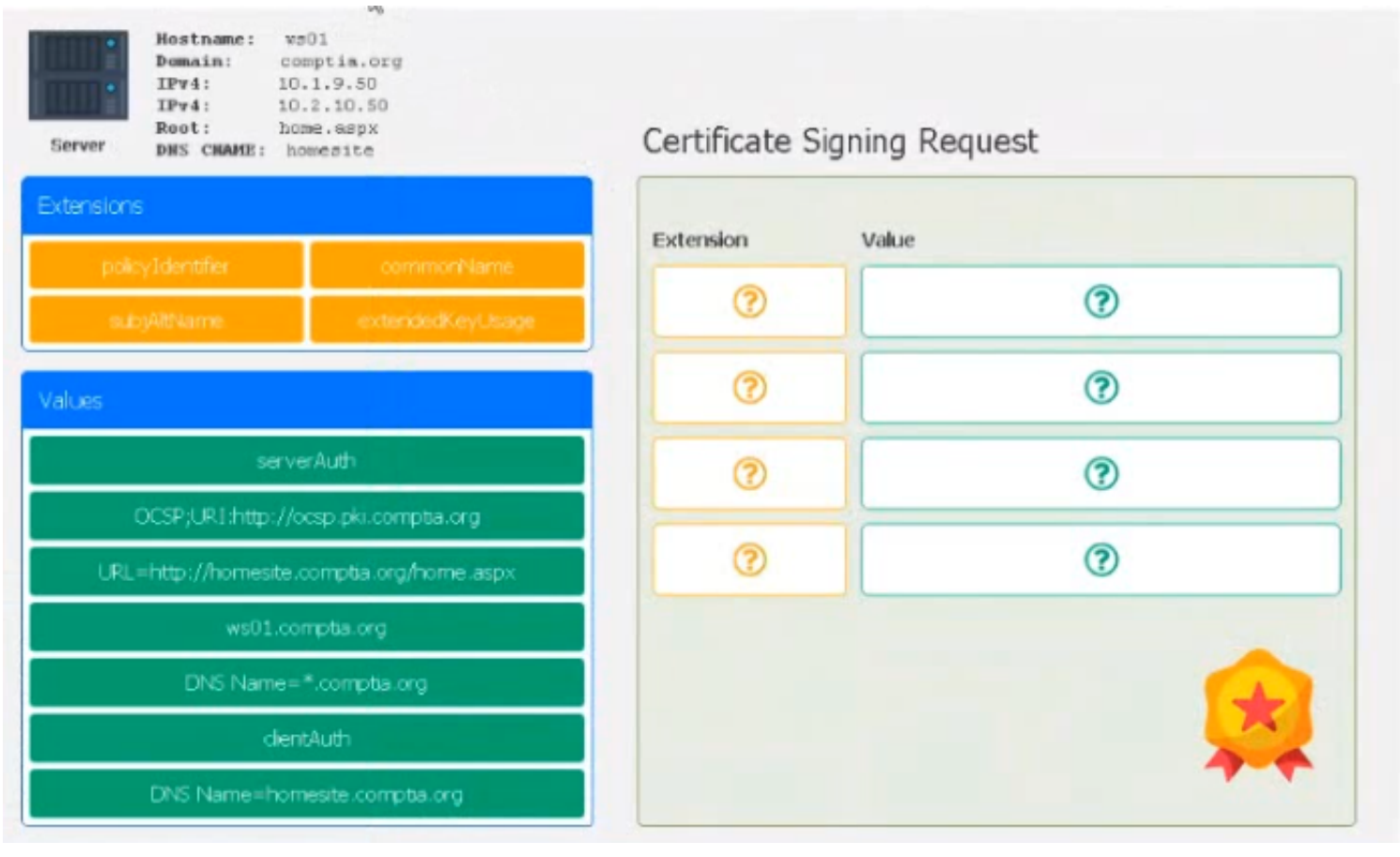
NEW QUESTION 44
- (Exam Topic 2)
A security analyst receives an alert that indicates a user's device is displaying anomalous behavior The analyst suspects the device might be compromised Which of the following should the analyst to first?

A. Reboot the device
B. Set the host-based firewall to deny an incoming connection
C. Update the antivirus definitions on the device
D. Isolate the device

Answer: D

Explanation:
Isolating the device is the first thing that a security analyst should do if they suspect that a user's device might be compromised. Isolating the device means disconnecting it from the network or placing it in a separate network segment to prevent further communication with potential attackers or malicious hosts. Isolating the device can help contain the incident, limit the damage or data loss, preserve the evidence, and facilitate the investigation and remediation.
References: https://www.comptia.org/certifications/security#examdetails https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives https://resources.infosecinstitute.com/topic/incident-response-process/

NEW QUESTION 45
- (Exam Topic 2)
Leveraging the information supplied below, complete the CSR for the server to set up TLS (HTTPS)
• Hostname: ws01
• Domain: comptia.org
• IPv4: 10.1.9.50
• IPV4: 10.2.10.50
• Root: home.aspx
• DNS CNAME:homesite. Instructions:
Drag the various data points to the correct locations within the CSR. Extension criteria belong in the let hand column and values belong in the corresponding row in the right hand column.



A. Mastered
B. Not Mastered

Answer: A

Explanation:
Graphical user interface, application Description automatically generated

NEW QUESTION 50
- (Exam Topic 2)
A financial institution recently joined a bug bounty program to identify security issues in the institution's new public platform. Which of the following best describes who the institution is working with to identify security issues?

A. Script kiddie
B. Insider threats
C. Malicious actor
D. Authorized hacker

Answer: D

Explanation:
An authorized hacker, also known as an ethical hacker or a white hat hacker, is someone who uses their skills and knowledge to find and report security issues in a system or application with the permission of the owner. An authorized hacker follows the rules and guidelines of the bug bounty program and does not cause any harm or damage to the system or its users.

NEW QUESTION 54
- (Exam Topic 2)
Several users have been violating corporate security policy by accessing inappropriate Sites on
corporate-issued mobile devices while off campus. The senior leadership team wants all mobile devices to be hardened with controls that:
- Limit the sites that can be accessed
- Only allow access to internal resources while physically on campus.
- Restrict employees from downloading images from company email

Whip of the following controls would best address this situation? (Select two).

A. MFA
B. GPS tagging
C. Biometric authentication
D. Content management
E. Geofencing
F. Screen lock and PIN requirements

Answer: DE

Explanation:
Content management is a security control that can limit the sites that can be accessed by corporate-issued mobile devices. It can also restrict employees from downloading images from company email by filtering or blocking certain types of content1. Geofencing is a security control that can only allow access to internal resources while physically on campus. It can use GPS or other location services to define a virtual boundary around a physical area and enforce policies based on the device's location2.
References:
1:
https://www.cyber.gov.au/resources-business-and-government/maintaining-devices-and-systems/system-hardeni
2: https://www.makeuseof.com/how-to-secure-your-content-management-system/

NEW QUESTION 59
- (Exam Topic 2)
An attacker is using a method to hide data inside of benign files in order to exfiltrate confidential data. Which of the following is the attacker most likely using?

A. Base64 encoding
B. Steganography
C. Data encryption
D. Perfect forward secrecy

Answer: B

Explanation:
Steganography is a technique for hiding data inside of benign files such as images, audio, or video. This can be used to exfiltrate confidential data without raising suspicion or detection.
References: How to Hide Files Inside Files [Images, Folder] - Raymond.CC Blog; How to Hide Data in a Secret Text File Compartment - How-To Geek; How to Hide Data Within an Image - Medium

NEW QUESTION 62
- (Exam Topic 2)
A new security engineer has started hardening systems. One o(the hardening techniques the engineer is using involves disabling remote logins to the NAS. Users are now reporting the inability lo use SCP to transfer files to the NAS, even though the data is still viewable from the users' PCs. Which of the following is the MOST likely cause of this issue?

A. TFTP was disabled on the local hosts.
B. SSH was turned off instead of modifying the configuration file.
C. Remote login was disabled in the networkd.conf instead of using the ssh
D. conf.
E. Network services are no longer running on the NAS

Answer: B

Explanation:
SSH is used to securely transfer files to the remote server and is required for SCP to work. Disabling SSH will prevent users from being able to use SCP to transfer files to the server. To enable SSH, the security engineer should modify the SSH configuration file (sshd.conf) and make sure that SSH is enabled. For more information on hardening systems and the security techniques that can be used, refer to the CompTIA Security+ SY0-601 Official Text Book and Resources.

NEW QUESTION 63
- (Exam Topic 2)
While performing a threat-hunting exercise, a security analyst sees some unusual behavior occurring in an application when a user changes the display name. The security analyst decides to perform a static code analysis and receives the following pseudocode:

```
function change.display.name
set variable $displayname [8]
print "Enter a new display name:"
getstring ($displayname)
goto function exit.display.name.setting
```

Which of the following attack types best describes the root cause of the unusual behavior?

A. Server-side request forgery
B. Improper error handling
C. Buffer overflow
D. SQL injection

Answer: D

Explanation:
SQL injection is one of the most common web hacking techniques. SQL injection is the placement of malicious code in SQL statements, via web page input12. A SQL injection attack consists of insertion or “injection” of a SQL query via the input data from the client to the application. A successful SQL injection exploit can read sensitive data from the database, modify database data (Insert/Update/Delete), execute administration operations on the database (such as shutdown the DBMS), recover the content of a given file present on the DBMS file system and in some cases issue commands to the operating system3.
According to the pseudocode given in the question, the application takes a user input for display name and concatenates it with a SQL query to update the user’s profile. This is a vulnerable practice that allows an attacker to inject malicious SQL code into the query and execute it on the database. For example, an attacker could enter something like this as their display name:
John'; DROP TABLE users; -
This would result in the following SQL query being executed:
UPDATE profile SET displayname = 'John'; DROP TABLE users; --' WHERE userid = 1;
The semicolon (;) terminates the original update statement and starts a new one that drops the users table. The double dash (–) comments out the rest of the query. This would cause a catastrophic loss of data for the application.

NEW QUESTION 68
- (Exam Topic 2)
Which of the following would satisfy three-factor authentication requirements?

A. Password, PIN, and physical token
B. PIN, fingerprint scan, and ins scan
C. Password, fingerprint scan, and physical token
D. PIN, physical token, and ID card

Answer: C

Explanation:
Three-factor authentication combines three types of authentication methods: something you know (password), something you have (physical token), and something you are (fingerprint scan). Option C satisfies these requirements, as it uses a password (something you know), a physical token (something you have), and a fingerprint scan (something you are) for authentication.
Reference: CompTIA Security+ Study Guide (SY0-601) 7th Edition by Emmett Dulaney, Chuck Easttom Note: There could be other options as well that could satisfy the three-factor authentication requirements as
per the organization's security policies.

NEW QUESTION 71
- (Exam Topic 2)
A cybersecurity analyst needs to adopt controls to properly track and log user actions to an individual. Which of the following should the analyst implement?

A. Non-repudiation
B. Baseline configurations
C. MFA
D. DLP

Answer: A

Explanation:
Non-repudiation is the process of ensuring that a party involved in a transaction or communication cannot deny their involvement. By implementing non-repudiation controls, a cybersecurity analyst can properly track and log user actions, attributing them to a specific individual. This can be achieved through methods such as digital signatures, timestamps, and secure logging mechanisms.
References:
* 1. CompTIA Security+ Certification Exam Objectives (SY0-601): https://www.comptia.jp/pdf/CompTIA%20Security%2B%20SY0-601%20Exam%20Objectives.pdf
* 2. Stewart, J. M., Chapple, M., & Gibson, D. (2021). CompTIA Security+ Study Guide: Exam SY0-601. John Wiley & Sons.

NEW QUESTION 73
- (Exam Topic 2)
Unauthorized devices have been detected on the internal network. The devices' locations were traced to Ether ports located in conference rooms. Which of the following would be the best technical controls to implement to prevent these devices from accessing the internal network?

A. NAC
B. DLP
C. IDS
D. MFA

Answer: A

Explanation:
NAC stands for network access control, which is a security solution that enforces policies and controls on devices that attempt to access a network. NAC can help prevent unauthorized devices from accessing the internal network by verifying their identity, compliance, and security posture before granting them access. NAC can also monitor and restrict the activities of authorized devices based on predefined rules and roles.
References: https://www.comptia.org/certifications/security#examdetails https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives https://www.cisco.com/c/en/us/products/security/what-is-network-access-control-nac.html

NEW QUESTION 76
- (Exam Topic 2)
A network engineer receives a call regarding multiple LAN-connected devices that are on the same switch. The devices have suddenly been experiencing speed and latency issues while connecting to network resources. The engineer enters the command show mac address-table and reviews the following output

VLAN	MAC	PORT
1	00-04-18-EB-14-30	Fa0/1
1	88-CD-34-19-E8-98	Fa0/2
1	40-11-08-87-10-13	Fa0/3
1	00-04-18-EB-14-30	Fa0/4
1	88-CD-34-00-15-F3	Fa0/5
1	FA-13-02-04-27-64	Fa0/6

Which of the following best describes the attack that is currently in progress?

A. MAC flooding
B. Evil twin
C. ARP poisoning
D. DHCP spoofing

Answer: C

Explanation:
This is an attempt to redirect traffic to an attacking host by sending an ARP packet that contains the forged address of the next hop router. The attacker tricks the victim into believing that it is the legitimate router by sending a spoofed ARP reply with its own MAC address. This causes the victim to send all its traffic to the attacker instead of the router. The attacker can then intercept, modify, or drop the packets as they please.

NEW QUESTION 78
- (Exam Topic 2)
A company has numerous employees who store PHI data locally on devices. The Chief Information Officer wants to implement a solution to reduce external

exposure of PHI but not affect the business.
The first step the IT team should perform is to deploy a DLP solution:

A. for only data in transit.
B. for only data at reset.
C. in blocking mode.
D. in monitoring mode.

Answer: D

Explanation:
A DLP solution in monitoring mode is a good first step to deploy for data loss prevention. It allows the IT team to observe and analyze the data flows and activities without blocking or interfering with them. It helps to identify the sources and destinations of sensitive data, the types and volumes of data involved, and the potential risks and violations. It also helps to fine-tune the DLP policies and rules before switching to blocking mode, which can disrupt business operations if not configured properly.

NEW QUESTION 81
- (Exam Topic 2)
An employee's company email is configured with conditional access and requires that MFA is enabled and used. An example of MFA is a phone call and:

A. a push notification
B. a password.
C. an SMS message.
D. an authentication application.

Answer: D

Explanation:
An authentication application can generate one-time passwords or QR codes that are time-based and unique to each user and device. It does not rely on network connectivity or SMS delivery, which can be intercepted or delayed. It also does not require the user to respond to a push notification, which can be accidentally approved or ignored.

NEW QUESTION 84
- (Exam Topic 2)
The findings in a consultant's report indicate the most critical risk to the security posture from an incident response perspective is a lack of workstation and server investigation capabilities. Which of the following should be implemented to remediate this risk?

A. HIDS
B. FDE
C. NGFW
D. EDR

Answer: D

Explanation:
EDR solutions are designed to detect and respond to malicious activity on workstations and servers, and they provide a detailed analysis of the incident, allowing organizations to quickly remediate the threat. According to the CompTIA Security+ SY0-601 Official Text Book, EDR solutions can be used to detect malicious activity on endpoints, investigate the incident, and contain the threat. EDR solutions can also provide real-time monitoring and alerting for potential security events, as well as detailed forensic analysis for security incidents. Additionally, the text book recommends that organizations also implement a host-based intrusion detection system (HIDS) to alert them to malicious activity on their workstations and servers.

NEW QUESTION 86
- (Exam Topic 2)
Which of the following allow access to remote computing resources, a operating system. and centrdized configuration and data

A. Containers
B. Edge computing
C. Thin client
D. Infrastructure as a service

Answer: C

Explanation:
Thin clients are devices that have minimal hardware and software components and rely on a remote server to provide access to computing resources, an operating system, and centralized configuration and data. Thin clients can reduce the cost, complexity, and security risks of managing multiple devices.

NEW QUESTION 87
- (Exam Topic 2)
A security architect is designing the new outbound internet for a small company. The company would like all 50 users to share the same single Internet connection. In addition, users will not be permitted to use social media sites or external email services while at work. Which of the following should be included in this design to satisfy these requirements? (Select TWO).

A. DLP
B. MAC filtering
C. NAT
D. VPN
E. Content filler
F. WAF

Answer: CD

Explanation:
NAT (Network Address Translation) is a technology that allows multiple devices to share a single IP address, allowing them to access the internet while still maintaining security and privacy. VPN (Virtual Private Network) is a technology that creates a secure, encrypted tunnel between two or more devices, allowing users to access the internet and other network resources securely and privately. Additionally, VPNs can also be used to restrict access to certain websites and services, such as social media sites and external email services.

NEW QUESTION 90
- (Exam Topic 2)
An engineer wants to inspect traffic to a cluster of web servers in a cloud environment Which of the following solutions should the engineer implement? (Select two).

A. CASB
B. WAF
C. Load balancer
D. VPN
E. TLS
F. DAST

Answer: BC

Explanation:
A web application firewall (WAF) is a solution that inspects traffic to a cluster of web servers in a cloud environment and protects them from common web-based attacks, such as SQL injection, cross-site scripting, and denial-of-service1. A WAF can be deployed as a cloud service or as a virtual appliance in front of the web servers. A load balancer is a solution that distributes traffic among multiple web servers in a cloud environment and improves their performance, availability, and scalability2. A load balancer can also perform health checks on the web servers and route traffic only to the healthy ones. The other options are not relevant to this scenario. A CASB is a cloud access security broker, which is a solution that monitors and controls the use of cloud services by an organization's users3. A VPN is a virtual private network, which is a solution that creates a secure and encrypted connection between two networks or devices over the internet. TLS is Transport Layer Security, which is a protocol that provides encryption and authentication for data transmitted over a network. DAST is dynamic application security testing, which is a method of testing web applications for vulnerabilities by simulating attacks on them.
References: 1: https://www.imperva.com/learn/application-security/what-is-a-web-application-firewall-waf/ 2: https://www.imperva.com/learn/application-security/load-balancing/ 3: https://www.imperva.com/learn/application-security/cloud-access-security-broker-casb/ : https://www.imperva.com/learn/application-security/vpn-virtual-private-network/ : https://www.imperva.com/learn/application-security/transport-layer-security-tls/ : https://www.imperva.com/learn/application-security/dynamic-application-security-testing-dast/ : https://docs.microsoft.com/en-us/azure/cloud-adoption-framework/ready/azure-best-practices/plan-for-traffic-ins
: https://docs.microsoft.com/en-us/azure/private-link/inspect-traffic-with-azure-firewall : https://docs.microsoft.com/en-us/azure/architecture/example-scenario/gateway/application-gateway-before-azur

NEW QUESTION 93
- (Exam Topic 2)
While researching a data exfiltration event, the security team discovers that a large amount of data was transferred to a file storage site on the internet. Which of the following controls would work best to reduce the risk of further exfiltration using this method?

A. Data loss prevention
B. Blocking IP traffic at the firewall
C. Containerization
D. File integrity monitoring

Answer: A

Explanation:
Data loss prevention (DLP) is a set of tools and processes that aim to prevent unauthorized access, use, or transfer of sensitive data. DLP can help reduce the risk of further exfiltration using file storage sites on the internet by monitoring and controlling data flows across endpoints, networks, and cloud services. DLP can also detect and block attempts to copy, upload, or download sensitive data to or from file storage sites based on predefined policies and rules.
References: https://www.comptia.org/certifications/security#examdetails https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives https://www.microsoft.com/en-us/security/business/security-101/what-is-data-loss-prevention-dlp

NEW QUESTION 96
- (Exam Topic 2)
A new security engineer has started hardening systems. One of the hardening techniques the engineer is using involves disabling remote logins to the NAS. Users are now reporting the inability to use SCP to transfer files to the NAS, even though the data is still viewable from the users' PCs. Which of the following is the MOST likely cause of this issue?

A. TFTP was disabled on the local hosts
B. SSH was turned off instead of modifying the configuration file
C. Remote login was disabled in the networkd.conf instead of using the sshd.conf.
D. Network services are no longer running on the NAS.

Answer: B

Explanation:
Disabling remote logins to the NAS likely involved turning off SSH instead of modifying the configuration file. This would prevent users from using SCP to transfer files to the NAS, even though the data is still viewable from the users' PCs. Source: TechTarget

NEW QUESTION 100
- (Exam Topic 2)
Which of the following best describes a tool used by an organization to identi-fy, log, and track any potential risks and corresponding risk information?

A. Quantitative risk assessment
B. Risk register
C. Risk control assessment
D. Risk matrix

Answer: B

Explanation:
A risk register is a tool used by an organization to identify, log, and track any potential risks and corresponding risk information. It helps to document the risks, their likelihood, impact, mitigation strategies, and status. A risk register is an essential part of risk management and can be used for projects or organizations.

NEW QUESTION 101
- (Exam Topic 2)
Which of the following best describes when an organization Utilizes a read-to-use application from a cloud provider?

A. IaaS
B. SaaS
C. PaaS
D. XaaS

Answer: B

Explanation:
SaaS stands for software as a service, which is a cloud computing model that provides ready-to-use applications over the internet. SaaS applications are hosted and managed by a cloud provider who also handles software updates, maintenance, security, and scalability. SaaS users can access the applications through a web browser or a mobile app without installing any software on their devices. SaaS applications are typically offered on a subscription or pay-per-use basis. Examples of SaaS applications include email services, online office suites, customer relationship management (CRM) systems, and video conferencing platforms. References: https://www.comptia.org/certifications/security#examdetails https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives https://www.ibm.com/cloud/learn/software-as-a-service

NEW QUESTION 104
- (Exam Topic 2)
After installing a patch On a security appliance. an organization realized a massive data exfiltration occurred. Which Of the following describes the incident?

A. Supply chain attack
B. Ransomware attack
C. Cryptographic attack
D. Password attack

Answer: A

Explanation:
A supply chain attack is a type of attack that involves compromising a trusted third-party provider or vendor and using their products or services to deliver malware or gain access to the target organization. The attacker can exploit the trust and dependency that the organization has on the provider or vendor and bypass their security controls. In this case, the attacker may have tampered with the patch for the security appliance and used it to exfiltrate data from the organization.

NEW QUESTION 105
- (Exam Topic 2)
A company is launching a website in a different country in order to capture user information that a marketing business can use. The company itself will not be using the information. Which of the following roles is the company assuming?

A. Data owner
B. Data processor
C. Data steward
D. Data collector

Answer: D

Explanation:
A data collector is a person or entity that collects personal data from individuals for a specific purpose. A data collector may or may not be the same as the data controller or the data processor, depending on who determines the purpose and means of processing the data and who actually processes the data.

NEW QUESTION 107
- (Exam Topic 2)
A contractor overhears a customer recite their credit card number during a confidential phone call. The credit card Information is later used for a fraudulent transaction. Which of the following social engineering techniques describes this scenario?

A. Shoulder surfing
B. Watering hole
C. Vishing
D. Tailgating

Answer: A

Explanation:
Shoulder surfing is a social engineering technique that involves looking over someone’s shoulder to see what they are typing, writing, or viewing on their screen. It can be used to steal passwords, PINs, credit card numbers, or other sensitive information. In this scenario, the contractor used shoulder surfing to overhear the customer’s credit card number during a phone call.

NEW QUESTION 108
- (Exam Topic 2)
A security administrator recently used an internal CA to issue a certificate to a public application. A user tries to reach the application but receives a message stating, “Your connection is not private." Which of the following is the best way to fix this issue?

A. Ignore the warning and continue to use the application normally.
B. Install the certificate on each endpoint that needs to use the application.
C. Send the new certificate to the users to install on their browsers.
D. Send a CSR to a known CA and install the signed certificate on the application's server.

Answer: D

Explanation:
A certificate issued by an internal CA is not trusted by default by external users or applications. Therefore, when a user tries to reach the application that uses an internal CA certificate, they will receive a warning message that their connection is not private1. The best way to fix this issue is to use a certificate signed by a well-known public CA that is trusted by most browsers and operating systems1. To do this, the security administrator needs to send a certificate signing request (CSR) to a public CA and install the signed certificate on the application’s server2. The other options are not recommended or feasible. Ignoring the warning and continuing to use the application normally is insecure and exposes the user to potential man-in-the-middle attacks3. Installing the certificate on each endpoint that needs to use the application is impractical and cumbersome, especially if there are many users or devices involved3. Sending the new certificate to the users to install on their browsers is also inconvenient and may not work for some browsers or devices3.
References: 1:
https://learn.microsoft.com/en-us/azure/active-directory/develop/howto-create-self-signed-certificate 2:
https://learn.microsoft.com/en-us/azure/application-gateway/mutual-authentication-certificate-management 3: https://serverfault.com/questions/1106443/should-i-use-a-public-or-a-internal-ca-for-client-certificate-mtls

NEW QUESTION 113
- (Exam Topic 2)
A web server log contains two million lines. A security analyst wants to obtain the next 500 lines starting from line 4,600. Which of the following commands will help the security analyst to achieve this objective?

A. cat webserver.log | head -4600 | tail +500 |
B. cat webserver.log | tail -1995400 | tail -500 |
C. cat webserver.log | tail -4600 | head -500 |
D. cat webserver.log | head -5100 | tail -500 |

Answer: D

Explanation:
the cat command displays the contents of a file, the head command displays the first lines of a file, and the
tail command displays the last lines of a file. To display a specific number of lines from a file, you can use a
minus sign followed by a number as an option for head or tail. For example, head -10 will display the first 10 lines of a file.
To obtain the next 500 lines starting from line 4,600, you need to use both head and tail commands. https://www.professormesser.com/security-plus/sy0-601/sy0-601-video/file-manipulation-tools/

NEW QUESTION 115
- (Exam Topic 2)
An organization recently released a software assurance policy that requires developers to run code scans each night on the repository. After the first night, the security team alerted the developers that more than 2,000 findings were reported and need to be addressed. Which of the following is the MOST likely cause for the high number of findings?

A. The vulnerability scanner was not properly configured and generated a high number of false positives
B. Third-party libraries have been loaded into the repository and should be removed from the codebase.
C. The vulnerability scanner found several memory leaks during runtime, causing duplicate reports for the same issue.
D. The vulnerability scanner was not loaded with the correct benchmarks and needs to be updated.

Answer: A

Explanation:
The most likely cause for the high number of findings is that the vulnerability scanner was not properly configured and generated a high number of false positives. False positive results occur when a vulnerability scanner incorrectly identifies a non-vulnerable system or application as being vulnerable. This can happen due to incorrect configuration, over-sensitive rule sets, or outdated scan databases.
https://www.professormesser.com/security-plus/sy0-601/sy0-601-video/sy0-601-comptia-security-plus-course/

NEW QUESTION 117
- (Exam Topic 2)
A company recently implemented a patch management policy; however, vulnerability scanners have still been flagging several hosts, even after the completion of the patch process. Which of the following is the most likely cause of the issue?

A. The vendor firmware lacks support.
B. Zero-day vulnerabilities are being discovered.
C. Third-party applications are not being patched.
D. Code development is being outsourced.

Answer: C

Explanation:
Third-party applications are applications that are developed and provided by external vendors or sources, rather than by the organization itself. Third-party applications may introduce security risks if they are not properly vetted, configured, or updated. One of the most likely causes of vulnerability scanners flagging several hosts after the completion of the patch process is that third-party applications are not being patched. Patching is the process of applying updates or fixes to

software to address bugs, vulnerabilities, or performance issues. Patching third-party applications is essential for maintaining their security and functionality, as well as preventing attackers from exploiting known flaws.
References: https://www.comptia.org/certifications/security#examdetails https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives https://www.csoonline.com/article/2124681/why-third-party-security-is-your-security.html

NEW QUESTION 121
- (Exam Topic 2)
Which Of the following security controls can be used to prevent multiple from using a unique card swipe and being admitted to a entrance?

A. Visitor logs
B. Faraday cages
C. Access control vestibules
D. Motion detection sensors

Answer: C

Explanation:
Access control vestibules are physical security controls that consist of two sets of doors or gates that create a small enclosed space between them. Only one door or gate can be opened at a time, and only one person can enter or exit the vestibule at a time. Access control vestibules can prevent multiple people from using a unique card swipe and being admitted to a secure entrance, as they require each person to authenticate individually and prevent tailgating or piggybacking.

NEW QUESTION 123
- (Exam Topic 2)
A corporate security team needs to secure the wireless perimeter of its physical facilities to ensure only authorized users can access corporate resources. Which of the following should the security team do? (Refer the answer from CompTIA SY0-601 Security+ documents or guide at comptia.org)

A. Identify rogue access points.
B. Check for channel overlaps.
C. Create heat maps.
D. Implement domain hijacking.

Answer: A

Explanation:
Based on CompTIA SY0-601 Security+ guide, the answer to the question is A. Identify rogue access points. To secure the wireless perimeter of its physical facilities, the corporate security team should focus on
identifying rogue access points, which are unauthorized access points that have been set up by employees or outsiders to bypass security controls. By identifying and removing these rogue access points, the team can ensure that only authorized users can access corporate resources through the wireless network.
https://www.comptia.org/training/books/security-sy0-601-study-guide

NEW QUESTION 125
- (Exam Topic 2)
A security administrator performs weekly vulnerability scans on all cloud assets and provides a detailed report. Which of the following describes the administrator's activities?

A. Continuous deployment
B. Continuous integration
C. Continuous validation
D. Continuous monitoring

Answer: C

Explanation:
Continuous validation is a process that involves performing regular and automated tests to verify the security and functionality of a system or an application. Continuous validation can help identify and remediate vulnerabilities, bugs, or misconfigurations before they cause any damage or disruption. The security administrator’s activities of performing weekly vulnerability scans on all cloud assets and providing a detailed report are examples of continuous validation.

NEW QUESTION 127
- (Exam Topic 2)
A company is moving its retail website to a public cloud provider. The company wants to tokenize audit card data but not allow the cloud provider to see the stored credit card information. Which of the following would BEST meet these objectives?

A. WAF
B. CASB
C. VPN
D. TLS

Answer: B

Explanation:
CASB stands for cloud access security broker, which is a software tool or service that acts as an intermediary between users and cloud service providers. CASB can help protect data stored in cloud services by enforcing security policies and controls such as encryption, tokenization, authentication, authorization, logging, auditing, and threat detection. Tokenization is a process that replaces sensitive data with non-sensitive substitutes called tokens that have no intrinsic value. Tokenization can help prevent data leakage by ensuring that only authorized users can access the original data using a tokenization system.
References: https://www.comptia.org/certifications/security#examdetails https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives https://www.cisco.com/c/en/us/products/security/what

NEW QUESTION 131

- (Exam Topic 2)
A Security engineer needs to implement an MDM solution that complies with the corporate mobile device policy. The policy states that in order for mobile users to access corporate resources on their
devices, the following requirements must be met:

- Mobile device OSs must be patched up to the latest release.
- A screen lock must be enabled (passcode or biometric).
- Corporate data must be removed if the device is reported lost or stolen.

Which of the following controls should the security engineer configure? (Select two).

A. Disable firmware over-the-air
B. Storage segmentation
C. Posture checking
D. Remote wipe
E. Full device encryption
F. Geofencing

Answer: CD

Explanation:
Posture checking and remote wipe are two controls that the security engineer should configure to comply with the corporate mobile device policy. Posture checking is a process that verifies if a mobile device meets certain security requirements before allowing it to access corporate resources. For example, posture checking can check if the device OS is patched up to the latest release and if a screen lock is enabled. Remote wipe is a feature that allows the administrator to erase all data from a mobile device remotely, in case it is lost or stolen. This can prevent unauthorized access to corporate data on the device.

NEW QUESTION 136
- (Exam Topic 2)
A Chief Information Security Officer (CISO) is evaluating the dangers involved in deploying a new ERP system for the company. The CISO categorizes the system, selects the controls that apply to the system, implements the controls, and then assesses the success of the controls before authorizing the system. Which of the following is the CISO using to evaluate the environment for this new ERP system?

A. The Diamond Model of Intrusion Analysis
B. CIS Critical Security Controls
C. NIST Risk Management Framework
D. ISO 27002

Answer: C

Explanation:
The NIST Risk Management Framework (RMF) is a process for evaluating the security of a system and implementing controls to reduce potential risks associated with it. The RMF process involves categorizing the system, selecting the controls that apply to the system, implementing the controls, and then assessing the success of the controls before authorizing the system. For more information on the NIST Risk Management Framework and other security processes, refer to the CompTIA Security+ SY0-601 Official Text Book and Resources.

NEW QUESTION 138
- (Exam Topic 2)
An employee used a corporate mobile device during a vacation Multiple contacts were modified in the device vacation Which of the following method did attacker to insert the contacts without having 'Physical access to device?

A. Jamming
B. BluJacking
C. Disassoaatm
D. Evil twin

Answer: B

Explanation:
bluejacking is the sending of unsolicited messages over Bluetooth to Bluetooth-enabled devices such as mobile phones, PDAs or laptop computers. Bluejacking does not involve device hijacking, despite what the
name implies. In this context, a human might say that the best answer to the question is B. BluJacking, because it is a method that can insert contacts without having physical access to the device.

NEW QUESTION 140
- (Exam Topic 2)
A company completed a vulnerability scan. The scan found malware on several systems that were running older versions of Windows. Which of the following is MOST likely the cause of the malware infection?

A. Open permissions
B. Improper or weak patch management
C. Unsecure root accounts
D. Default settings

Answer: B

Explanation:
The reason for this is that older versions of Windows may have known vulnerabilities that have been patched in more recent versions. If a company is not regularly patching their systems, they are leaving those vulnerabilities open to exploit, which can allow malware to infect the systems.
It is important to regularly update and patch systems to address known vulnerabilities and protect against potential malware infections. This is an important aspect of proper security management.
Here is a reference to the CompTIA Security+ certification guide which states that "Properly configuring and maintaining software, including patch management, is

critical to protecting systems and data."
Reference: CompTIA Security+ Study Guide: SY0-601 by Emmett Dulaney, Chuck Easttom https://www.wiley.com/en-us/CompTIA+Security%2B+Study+Guide%3A+SY0-601-p-9781119515968

NEW QUESTION 141
- (Exam Topic 2)
A systems analyst is responsible for generating a new digital forensics chain -of- custody form Which of the following should the analyst include in this documentation? (Select two).

A. The order of volatility
B. A forensics NDA
C. The provenance of the artifacts
D. The vendor's name
E. The date and time
F. A warning banner

Answer: CE

Explanation:
A digital forensics chain-of-custody form is a document that records the chronological and logical sequence of custody, control, transfer, analysis, and disposition of digital evidence. A digital forensics chain-of-custody form should include the following information:

- The provenance of the artifacts: The provenance of the artifacts refers to the origin and history of the digital evidence, such as where, when, how, and by whom it was collected, handled, analyzed, or otherwise controlled.
- The date and time: The date and time refer to the specific moments when the digital evidence was collected, handled, analyzed, transferred, or disposed of by each person involved in the chain of custody.

Other information that may be included in a digital forensics chain-of-custody form are:

- The identification of the artifacts: The identification of the artifacts refers to the unique identifiers or labels assigned to the digital evidence, such as serial numbers, barcodes, hashes, or descriptions.
- The signatures of the custodians: The signatures of the custodians refer to the names and signatures of each person who had custody or control of the digital evidence at any point in the chain of custody.
- The location of the artifacts: The location of the artifacts refers to the physical or logical places where the digital evidence was stored or processed, such as a lab, a server, a cloud service, or a device.

References: https://www.comptia.org/certifications/security#examdetails https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives https://resources.infosecinstitute.com/topic/chain-of-custody-in-digital-forensics/

NEW QUESTION 144
- (Exam Topic 2)
A security analyst is investigating network issues between a workstation and a company server. The workstation and server occasionally experience service disruptions, and employees are forced to
reconnect to the server. In addition, some reports indicate sensitive information is being leaked from the server to the public.
The workstation IP address is 192.168.1.103, and the server IP address is 192.168.1.101. The analyst runs arp -a On a separate workstation and obtains the following results:

Internet address	Physical address	Type
192.168.1.101	27-4b-17-00-38-08	dynamic
192.168.1.102	8e-45-49-ac-67-b6	dynamic
192.168.1.103	27-4b-17-00-38-08	dynamic
192.168.1.105	1f-35-91-55-0f-39	dynamic
192.168.1.157	27-4b-17-00-38-08	dynamic
192.168.1.190	12-d6-cf-91-f6-3f	dynamic

Which of the following is most likely occurring?

A. Evil twin attack
B. Domain hijacking attack
C. On-path attack
D. MAC flooding attack

Answer: C

Explanation:
An on-path attack is a type of attack where an attacker places themselves between two devices (such as a
workstation and a server) and intercepts or modifies the communications between them. An on-path attacker can collect sensitive information, impersonate either device, or disrupt the service. In this scenario, the attacker is likely using an on-path attack to capture and alter the network traffic between the workstation and the server, causing service disruptions and data leakage.

NEW QUESTION 147
- (Exam Topic 2)
A security analyst reviews web server logs and notices the following line: 104.35. 45.53 [22/May/2020:07 : 00:58 +0100] "GET . UNION ALL SELECT user login, user _ pass, user email from wp users—— HTTP/I.I" 200 1072
http://www.example.com/wordpress/wp—admin/
Which of the following vulnerabilities is the attacker trying to exploit?

A. SSRF
B. CSRF
C. xss

D. SQLi

Answer: D

Explanation:
SQLi stands for SQL injection, which is a type of web security vulnerability that allows an attacker to execute malicious SQL statements on a database server. SQLi can result in data theft, data corruption, denial of service, or remote code execution.
The attacker in the web server log is trying to exploit a SQLi vulnerability by sending a malicious GET request that contains a UNION ALL SELECT statement. This statement is used to combine the results of two or more SELECT queries into a single result set. The attacker is attempting to retrieve user login, user pass, and user email from the wp users table, which is a WordPress database table that stores user information. The attacker may use this information to compromise the WordPress site or the users' accounts.

NEW QUESTION 151
- (Exam Topic 2)
A company recently enhanced mobile device configuration by implementing a set of security controls: biometrics, context-aware authentication, and full device encryption. Even with these settings in place, an unattended phone was used by a malicious actor to access corporate data.
Which of the following additional controls should be put in place first?

A. GPS tagging
B. Remote wipe
C. Screen lock timer
D. SEAndroid

Answer: C

Explanation:
According to NIST Special Publication 1800-4B1, some of the security controls that can be used to protect mobile devices include:

- Root and jailbreak detection: ensures that the security architecture for a mobile device has not been compromised.
- Encryption: protects the data stored on the device and in transit from unauthorized access.
- Authentication: verifies the identity of the user and the device before granting access to enterprise resources.
- Remote wipe: allows the organization to erase the data on the device in case of loss or theft.
- Screen lock timer: sets a time limit for the device to lock itself after a period of inactivity.

NEW QUESTION 156
- (Exam Topic 2)
A company is moving to new location. The systems administrator has provided the following server room requirements to the facilities staff:

- Consistent power levels in case of brownouts or voltage spikes
- A minimum of 30 minutes runtime following a power outage
- Ability to trigger graceful shutdowns of critical systems

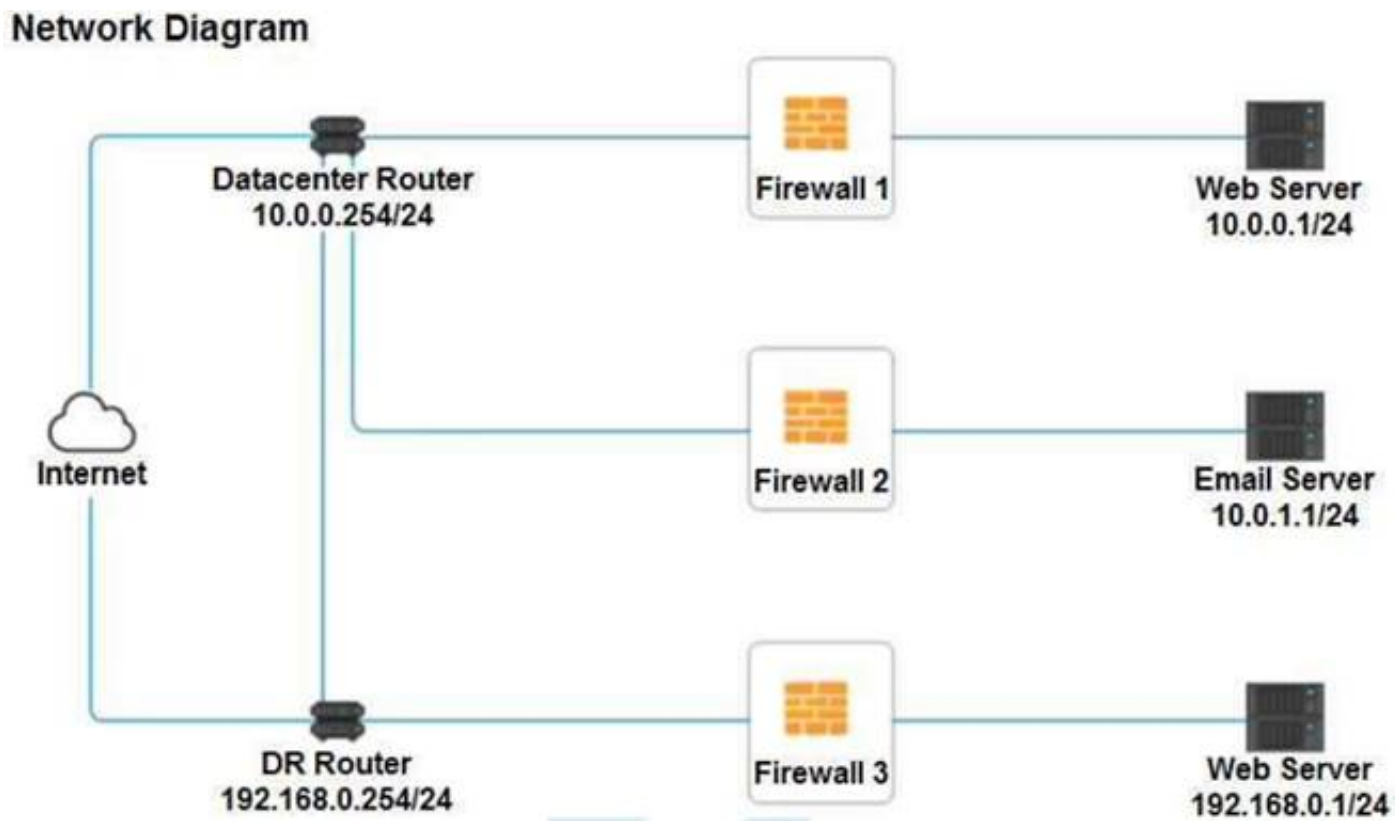
Which of the following would BEST meet the requirements?

A. Maintaining a standby, gas-powered generator
B. Using large surge suppressors on computer equipment
C. Configuring managed PDUs to monitor power levels
D. Deploying an appropriately sized, network-connected UPS device

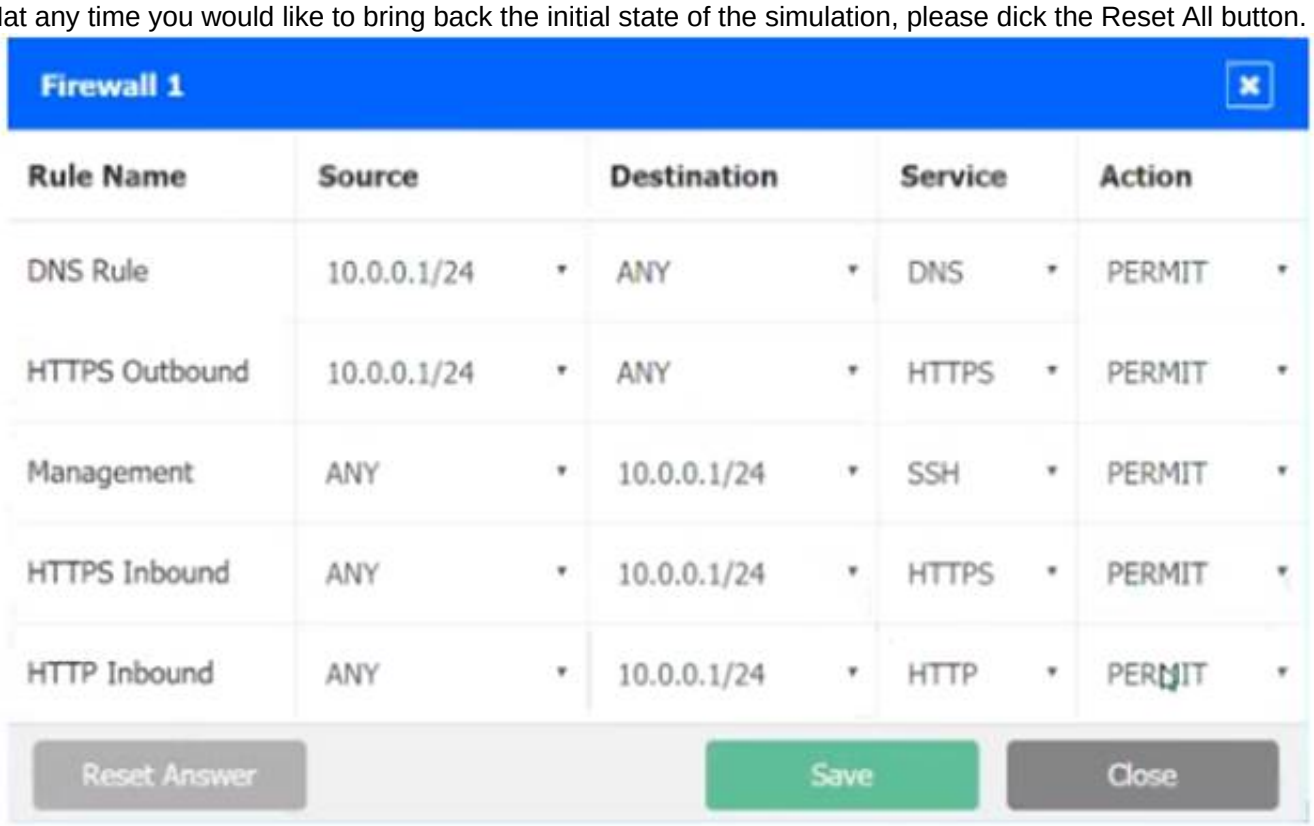
Answer: D

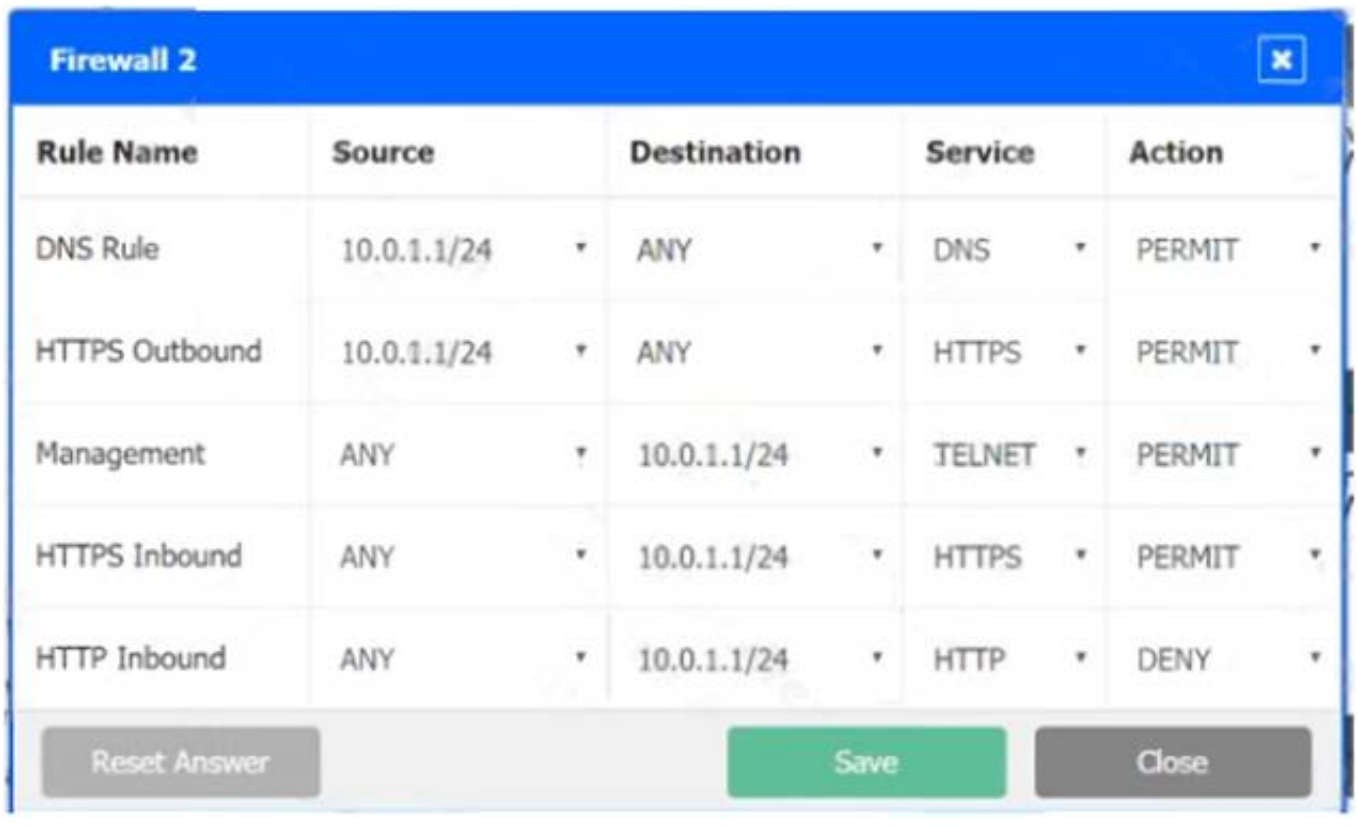
Explanation:
A UPS (uninterruptible power supply) device is a battery backup system that can provide consistent power levels in case of brownouts or voltage spikes. It can also provide a minimum of 30 minutes runtime following a power outage, depending on the size and load of the device. A network-connected UPS device can also communicate with critical systems and trigger graceful shutdowns if the battery level is low or the power is not restored.

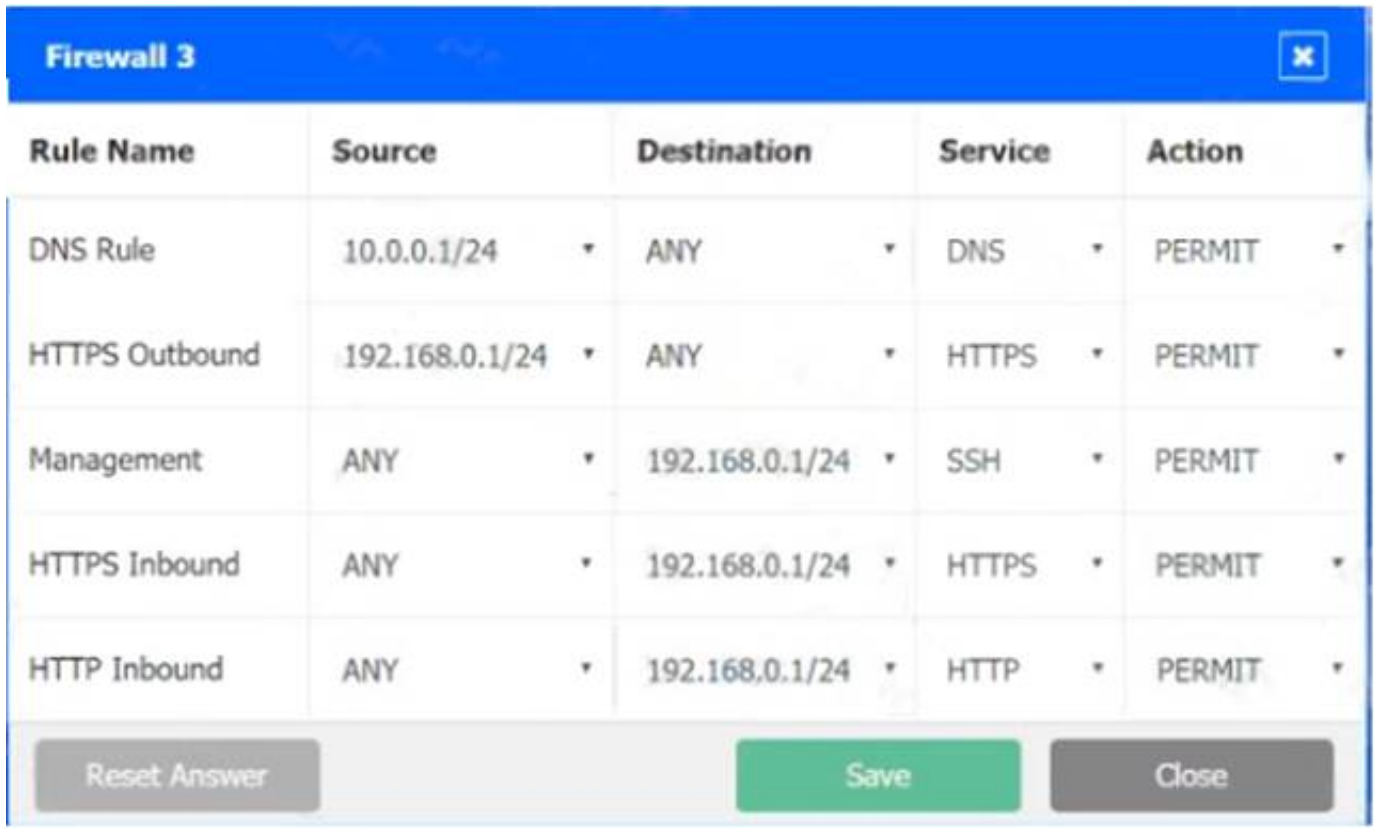
NEW QUESTION 158
- (Exam Topic 2)
A company recently added a DR site and is redesigning the network. Users at the DR site are having issues browsing websites.



INSTRUCTIONS
Click on each firewall to do the following:
* 1. Deny cleartext web traffic
* 2. Ensure secure management protocols are used.
* 3. Resolve issues at the DR site.
The ruleset order cannot be modified due to outside constraints.
Hat any time you would like to bring back the initial state of the simulation, please dick the Reset All button.





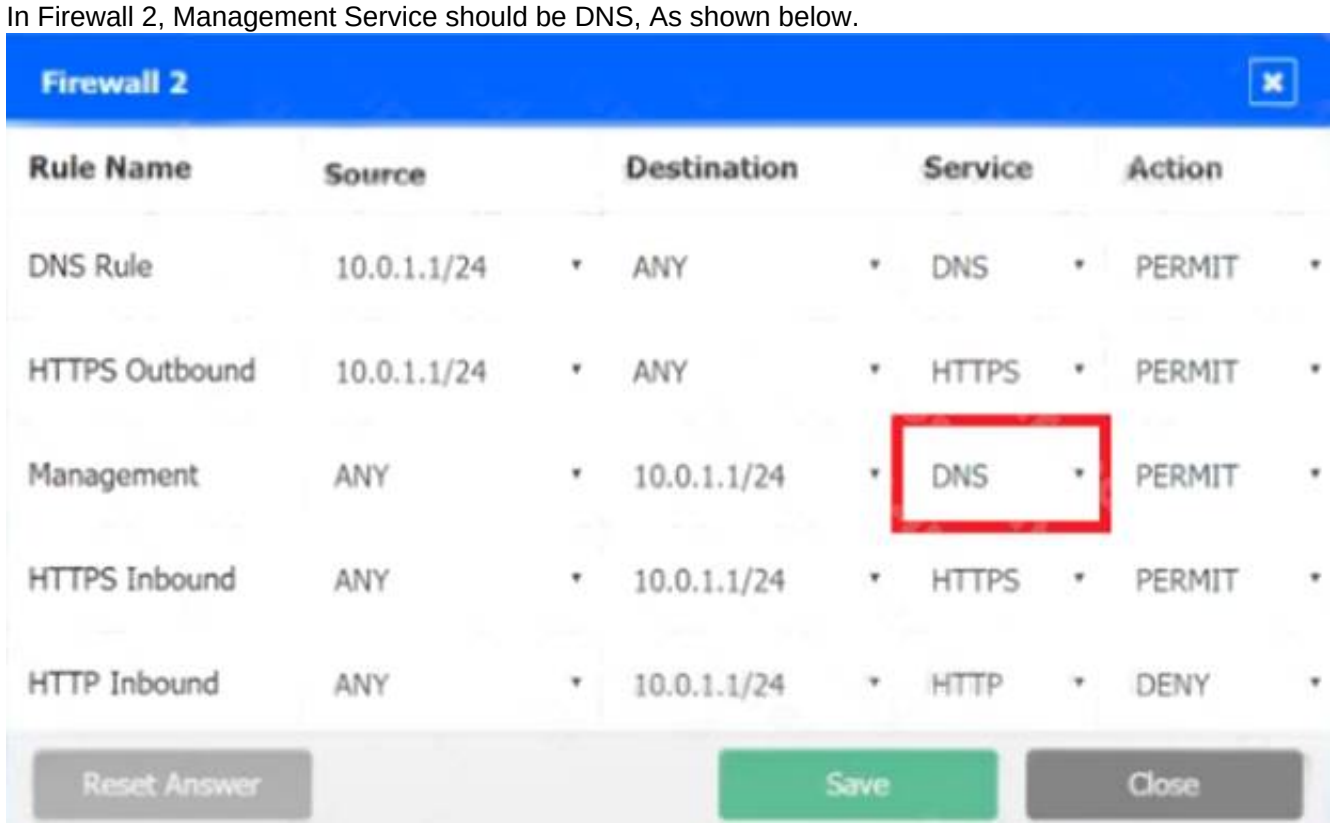


A. Mastered
B. Not Mastered

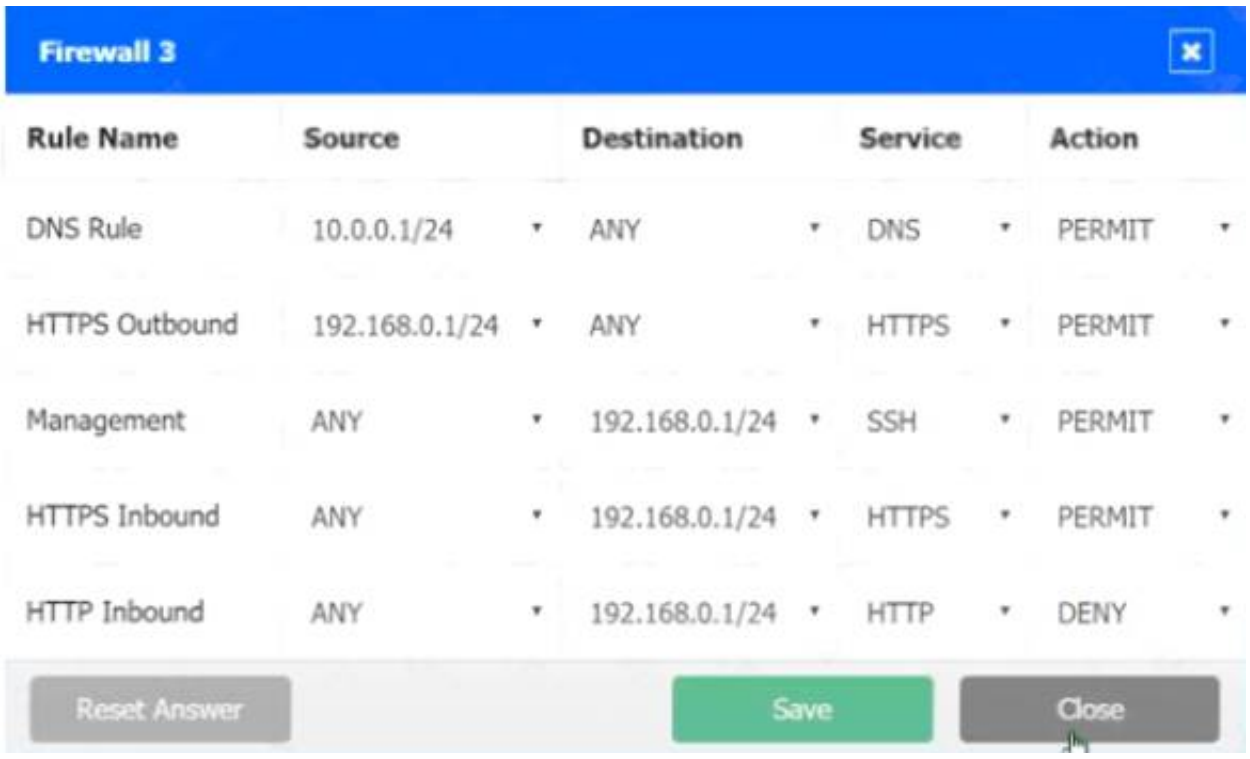
Answer: A

Explanation:
In Firewall 1, HTTP inbound Action should be DENY. As shown below

In Firewall 2, Management Service should be DNS, As shown below.



In Firewall 3, HTTP Inbound Action should be DENY, as shown below



NEW QUESTION 159
- (Exam Topic 2)
An organization's Chief Information Security Officer is creating a position that will be responsible for implementing technical controls to protect data, including ensuring backups are properly maintained Which of the following roles would MOST likely include these responsibilities?

A. Data protection officer
B. Data owner
C. Backup administrator
D. Data custodian
E. Internal auditor

Answer: C

Explanation:
The role that would most likely include the responsibilities of implementing technical controls to protect data and ensuring backups are properly maintained would be a Backup Administrator. A Backup Administrator is responsible for maintaining and managing an organization's backup systems and procedures, which includes ensuring that backups are properly configured, tested and securely stored. They are also responsible for the recovery of data in case of a disaster or data loss.

NEW QUESTION 163
- (Exam Topic 2)
Which of the following is a solution that can be used to stop a disgruntled employee from copying confidential data to a USB drive?

A. DLP
B. TLS
C. AV
D. IDS

Answer: A

Explanation:
DLP stands for data loss prevention, which is a set of tools and processes that aim to prevent unauthorized access, use, or transfer of sensitive data. DLP can help mitigate the risk of data exfiltration by disgruntled employees or external attackers by monitoring and controlling data flows across endpoints, networks, and cloud services. DLP can also detect and block attempts to copy, transfer, or upload sensitive data to a USB drive or other removable media based on predefined policies and rules.
References: https://www.comptia.org/certifications/security#examdetails https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives https://www.microsoft.com/en-us/security/business/security-101/what-is-data-loss-prevention-dlp

NEW QUESTION 168
- (Exam Topic 2)
Which of the following describes business units that purchase and implement scripting software without approval from an organization's technology Support staff?

A. Shadow IT
B. Hacktivist
C. Insider threat
D. script kiddie

Answer: A

Explanation:
shadow IT is the use of IT-related hardware or software by a department or individual without the knowledge or approval of the IT or security group within the organization12. Shadow IT can encompass cloud services, software, and hardware. The main area of concern today is the rapid adoption of cloud-based service1s.
According to one source3, shadow IT helps you know and identify which apps are being used and what your risk level is. 80% of employees use non-sanctioned apps that no one has reviewed, and may not be compliant with your security and compliance policies.

NEW QUESTION 171
- (Exam Topic 2)
An organization wants to secure a LAN/WLAN so users can authenticate and transport data securely. The solution needs to prevent on-path attacks and evil twin attacks. Which of the following will best meet the organization's need?

A. MFA
B. 802.1X
C. WPA2
D. TACACS

Answer: B

Explanation:
* 802.1 X is a standard for network access control that provides authentication and encryption for devices that connect to a LAN/WLAN. 802.1X uses the Extensible Authentication Protocol (EAP) to exchange authentication messages between a supplicant (the device requesting access), an authenticator (the device granting access), and an authentication server (the device verifying credentials). 802.1X can prevent on-path attacks and evil twin attacks by requiring users to provide valid credentials before accessing the network and encrypting the data transmitted over the network.
On-path attacks are attacks that involve intercepting or modifying network traffic between two endpoints. An on-path attacker can eavesdrop on sensitive information, alter or inject malicious data, or redirect traffic to malicious destinations. On-path attacks are frequently perpetrated over WiFi network1s.
Evil twin attacks are attacks that involve setting up a fake WiFi access point that mimics a legitimate one. An evil twin attacker can trick users into connecting to the fake network and then monitor or manipulate their online activity. Evil twin attacks are more common on public WiFi networks that are unsecured and leave personal data vulnerable23.

NEW QUESTION 176
- (Exam Topic 2)
A security administrator installed a new web server. The administrator did this to increase the capacity for an application due to resource exhaustion on another server. Which of the following algorithms should the administrator use to split the number of the connections on each server in half?

A. Weighted response
B. Round-robin
C. Least connection
D. Weighted least connection

Answer: B

Explanation:
Round-robin is a type of load balancing algorithm that distributes traffic to a list of servers in rotation. It is a static algorithm that does not take into account the state of the system for the distribution of tasks. It assumes that all servers have equal capacity and can handle an equal amount of traffic.

NEW QUESTION 179
- (Exam Topic 2)
While troubleshooting a service disruption on a mission-critical server, a technician discovered the user account that was configured to run automated processes was disabled because the user's password failed to meet password complexity requirements. Which of the following would be the BEST solution to securely prevent future issues?

A. Using an administrator account to run the processes and disabling the account when it is not in use
B. Implementing a shared account the team can use to run automated processes
C. Configuring a service account to run the processes
D. Removing the password complexity requirements for the user account

Answer: C

Explanation:
A service account is a user account that is created specifically to run automated processes and services. These accounts are typically not associated with an individual user, and are used for running background services and scheduled tasks. By configuring a service account to run the automated processes, you can ensure that the account will not be disabled due to password complexity requirements and other user-related issues.
Reference: CompTIA Security+ Study Guide (SY0-601) 7th Edition by Emmett Dulaney, Chuck Easttom

NEW QUESTION 180
- (Exam Topic 2)
A small, local company experienced a ransomware attack. The company has one web-facing server and a few workstations. Everything is behind an ISP firewall. A single web-facing server is set up on the router to forward all ports so that the server is viewable from the internet. The company uses an older version of third-party software to manage the website. The assets were never patched. Which of the following should be done to prevent an attack like this from happening again? (Select three).

A. Install DLP software to prevent data loss.
B. Use the latest version of software.
C. Install a SIEM device.
D. Implement MDM.
E. Implement a screened subnet for the web server.
F. Install an endpoint security solution.
G. Update the website certificate and revoke the existing ones.
H. Deploy additional network sensors.

Answer: BEF

NEW QUESTION 182
- (Exam Topic 2)
A security administrator needs to block a TCP connection using the corporate firewall, Because this connection is potentially a threat. the administrator not want to

back an RST Which of the following actions in rule would work best?

A. Drop
B. Reject
C. Log alert
D. Permit

Answer: A

Explanation:
the difference between drop and reject in firewall is that the drop target sends nothing to the source, while the reject target sends a reject response to the source. This can affect how the source handles the connection attempt and how fast the port scanning is. In this context, a human might say that the best action to block a TCP connection using the corporate firewall is A. Drop, because it does not send back an RST packet and it may slow down the port scanning and protect against DoS attacks.

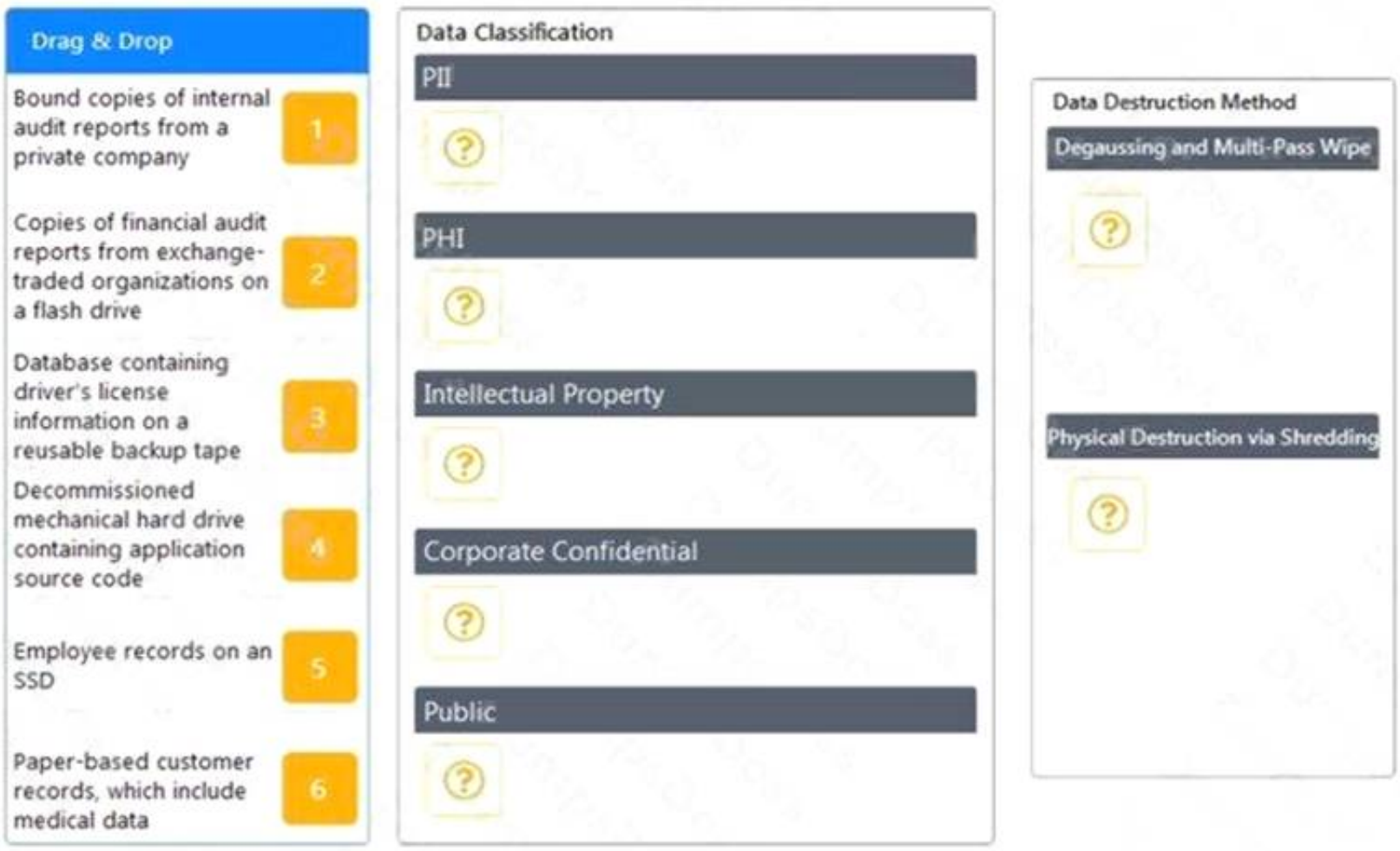
NEW QUESTION 186
- (Exam Topic 2)
A company was recently breached Pan of the company's new cybersecurity strategy is to centralize? the togs horn all security devices Which of the following components forwards the logs to a central source?

A. Log enrichment
B. Log queue
C. Log parser
D. Log collector

Answer: D

Explanation:
A log collector is a component that forwards the logs from all security devices to a central source. A log collector can be a software tool or a hardware appliance that collects logs from various sources, such as firewalls, routers, servers, applications, or endpoints. A log collector can also perform functions such as log filtering, parsing, aggregation, normalization, and enrichment. A log collector can help centralize logging by sending the collected logs to a central log server or a security information and event management (SIEM) system for further analysis and correlation.
References: https://www.comptia.org/certifications/security#examdetails https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives https://geekflare.com/open-source-centralized-logging/

NEW QUESTION 191
- (Exam Topic 2)
A data owner has been tasked with assigning proper data classifications and destruction methods for various types of data contained within the environment.



A. Mastered
B. Not Mastered

Answer: A

Explanation:
Graphical user interface, application Description automatically generated

NEW QUESTION 192
- (Exam Topic 2)
An organization has been experiencing outages during holiday sales and needs to ensure availability of its point-of-sales systems. The IT administrator has been

asked to improve both server-data fault tolerance and site availability under high consumer load. Which of the following are the best options to accomplish this objective? (Select two.)

A. Load balancing
B. Incremental backups
C. UPS
D. RAID
E. Dual power supply
F. VLAN

Answer: AD

Explanation:
Load balancing and RAID are the best options to accomplish the objective of improving both server-data fault tolerance and site availability under high consumer load. Load balancing is a method of distributing network traffic across multiple servers to optimize performance, reliability, and scalability. Load balancing can help improve site availability by preventing server overload, ensuring high uptime, and providing redundancy and failover. RAID stands for redundant array of independent disks, which is a technology that combines multiple physical disks into a logical unit to improve data storage performance, reliability, and capacity. RAID can help improve server-data fault tolerance by providing data redundancy, backup, and recovery.
References: https://www.comptia.org/certifications/security#examdetails https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives https://www.nginx.com/resources/glossary/load-balancing/ https://www.ibm.com/cloud/learn/raid

NEW QUESTION 195
- (Exam Topic 2)
Which of the following Is the BEST reason to maintain a functional and effective asset management policy that aids in ensuring the security of an organization?

A. To provide data to quantify risk based on the organization's systems
B. To keep all software and hardware fully patched for known vulnerabilities
C. To only allow approved, organization-owned devices onto the business network
D. To standardize by selecting one laptop model for all users in the organization

Answer: A

Explanation:
An effective asset management policy helps an organization understand and manage the systems, hardware, and software it uses, and how they are used, including their vulnerabilities and risks. This information is crucial for accurately identifying and assessing risks to the organization, and making informed decisions about how to mitigate those risks. This is the best reason to maintain an effective asset management policy. Reference: CompTIA Security+ Study Guide (SY0-601) 7th Edition by Emmett Dulaney, Chuck Easttom

NEW QUESTION 196
- (Exam Topic 2)
An air traffic controller receives a change in flight plan for an morning aircraft over the phone. The air traffic controller compares the change to what appears on radar and determines the information to be false. As a result, the air traffic controller is able to prevent an incident from occurring. Which of the following is this scenario an example of?

A. Mobile hijacking
B. Vishing
C. Unsecure VoIP protocols
D. SPIM attack

Answer: B

Explanation:
Vishing is a form of phishing that uses voice calls or voice messages to trick victims into revealing personal information, such as credit card numbers, bank details, or passwords. Vishing often uses spoofed phone numbers, voice-altering software, or social engineering techniques to impersonate legitimate organizations or authorities. In this scenario, the caller pretended to be someone who could change the flight plan of an aircraft, which could have caused a serious incident.

NEW QUESTION 201
- (Exam Topic 2)
A user is trying to upload a tax document, which the corporate finance department requested, but a security program IS prohibiting the upload A security analyst determines the file contains Pll, Which of
the following steps can the analyst take to correct this issue?

A. Create a URL filter with an exception for the destination website.
B. Add a firewall rule to the outbound proxy to allow file uploads
C. Issue a new device certificate to the user's workstation.
D. Modify the exception list on the DLP to allow the upload

Answer: D

Explanation:
Data Loss Prevention (DLP) policies are used to identify and protect sensitive data, and often include a list of exceptions that allow certain types of data to be uploaded or shared. By modifying the exception list on the DLP, the security analyst can allow the tax document to be uploaded without compromising the security of the system. (Reference: CompTIA Security+ SY0-601 Official Textbook, page 479-480)

NEW QUESTION 206
- (Exam Topic 2)
Which of the following measures the average time that equipment will operate before it breaks?

A. SLE

B. MTBF
C. RTO
D. ARO

Answer: C

Explanation:
the measure that calculates the average time that equipment will operate before it breaks is MTB1F2. MTBF stands for Mean Time Between Failures and it is a metric that represents the average time between two failures occurring in a given period12. MTBF is used to measure the reliability and availability of a product or system12. The higher the MTBF, the more reliable and available the product or system 1is2.

NEW QUESTION 208
- (Exam Topic 2)
An organization wants to quickly assess how effectively the IT team hardened new laptops Which of the following would be the best solution to perform this assessment?

A. Install a SIEM tool and properly configure it to read the OS configuration files.
B. Load current baselines into the existing vulnerability scanner.
C. Maintain a risk register with each security control marked as compliant or non-compliant.
D. Manually review the secure configuration guide checklists.

Answer: B

Explanation:
A vulnerability scanner is a tool that can scan devices and systems for known vulnerabilities, misconfigurations, and compliance issues. By loading the current baselines into the scanner, the organization can compare the actual state of the new laptops with the desired state and identify any deviations or weaknesses. This is a quick and automated way to assess the hardening of the new laptops.

NEW QUESTION 211
- (Exam Topic 2)
A company policy requires third-party suppliers to self-report data breaches within a specific time frame. Which of the following third-party risk management policies is the company complying with?

A. MOU
B. SLA
C. EOL
D. NDA

Answer: B

Explanation:
An SLA or service level agreement is a type of third-party risk management policy that defines the expectations and obligations between a service provider and a customer. An SLA typically includes metrics and standards for measuring the quality and performance of the service, as well as penalties or remedies for non-compliance. An SLA can also specify the reporting requirements for data breaches or other incidents that may affect the customer's security or privacy.

NEW QUESTION 214
- (Exam Topic 2)
A security engineer is concerned the strategy for detection on endpoints is too heavily dependent on previously defined attacks. The engineer wants a tool that can monitor for changes to key files and network traffic for the device. Which of the following tools should the engineer select?

A. HIDS
B. AV
C. NGF-W
D. DLP

Answer: A

Explanation:
The security engineer should select a Host Intrusion Detection System (HIDS) to address the concern. HIDS monitors and analyzes the internals of a computing system, such as key files and network traffic, for any suspicious activity. Unlike antivirus software (AV), which relies on known signatures of malware, HIDS can detect anomalies, policy violations, and previously undefined attacks by monitoring system behavior and the network traffic of the device.
References:
* 1. CompTIA Security+ Certification Exam Objectives (SY0-601): https://www.comptia.jp/pdf/Security%2B%20SY0-601%20Exam%20Objectives.pdf
* 2. Scarfone, K., & Mell, P. (2007). Guide to Intrusion Detection and Prevention Systems (IDPS): Recommendations of the National Institute of Standards and Technology. NIST Special Publication 800-94. https://nvlpubs.nist.gov/nistpubs/Legacy/SP/nistspecialpublication800-94.pdf

NEW QUESTION 217
- (Exam Topic 2)
Which of the following can be used to calculate the total loss expected per year due to a threat targeting an asset?

A. EF x asset value
B. ALE / SLE
C. MTBF x impact
D. SLE x ARO

Answer: D

Explanation:

The total loss expected per year due to a threat targeting an asset can be calculated using the Single Loss Expectancy (SLE) multiplied by the Annualized Rate of Occurrence (ARO). SLE is the monetary loss expected from a single event, while ARO is the estimated frequency of that event occurring in a year.
Reference: CompTIA Security+ Study Guide: Exam SY0-501, 7th Edition, by Emmett Dulaney and Chuck Easttom, Chapter 9: Risk Management, page 414.

NEW QUESTION 220
- (Exam Topic 2)
A penetration tester was able to compromise a host using previously captured network traffic. Which of the following is the result of this action?

A. Integer overflow
B. Race condition
C. Memory leak
D. Replay attack

Answer: D

Explanation:
A replay attack is a form of network attack in which valid data transmission is maliciously or fraudulently repeated or delayed12. This can allow an attacker to compromise a host by resending a previously captured message, such as a password or a session token, that looks legitimate to the receiver1. A replay attack can be prevented by using methods such as random session keys, timestamps, or one-time passwords that expire after use12. A replay attack is different from an integer overflow, which is a type of software vulnerability that occurs when an arithmetic operation attempts to create a numeric value that is too large to be represented within the available storage space3. A race condition is another type of software vulnerability that occurs when multiple processes access and manipulate the same data concurrently, and the outcome depends on the order of execution3. A memory leak is a type of software defect that occurs when a program fails to release memory that is no longer needed, causing the program to consume more memory than necessary and potentially affecting the performance or stability of the system3.

NEW QUESTION 221
- (Exam Topic 2)
A security administrator needs to provide secure access to internal networks for external partners The
administrator has given the PSK and other parameters to the third-party security administrator. Which of the following is being used to establish this connection?

A. Kerberos
B. SSL/TLS
C. IPSec
D. SSH

Answer: C

Explanation:
IPSec is a protocol suite that provides secure communication over IP networks. It uses encryption, authentication, and integrity mechanisms to protect data from unauthorized access or modification. IPSec can operate in two modes: transport mode and tunnel mode. In tunnel mode, IPSec can create a virtual private network (VPN) between two endpoints, such as external partners and internal networks. To establish a VPN connection, IPSec requires a pre-shared key (PSK) or other parameters to negotiate the security association. References: https://www.comptia.org/content/guides/what-is-vpn

NEW QUESTION 224
- (Exam Topic 2)
A security administrator would like to ensure all cloud servers will have software preinstalled for facilitating vulnerability scanning and continuous monitoring. Which of the following concepts should the administrator utilize?

A. Provisioning
B. Staging
C. Development
D. Quality assurance

Answer: A

Explanation:
Provisioning is the process of creating and setting up IT infrastructure, and includes the steps required to manage user and system access to various resources . Provisioning can be done for servers, cloud environments, users, networks, services, and more .
In this case, the security administrator wants to ensure that all cloud servers will have software preinstalled for facilitating vulnerability scanning and continuous monitoring. This means that the administrator needs to provision the cloud servers with the necessary software and configuration before they are deployed or used by customers or end users. Provisioning can help automate and standardize the process of setting up cloud servers and reduce the risk of human errors or inconsistencies.

NEW QUESTION 227
- (Exam Topic 2)
A security administrator is integrating several segments onto a single network. One of the segments, which includes legacy devices, presents a significant amount of risk to the network.
Which of the following would allow users to access to the legacy devices without compromising the security of the entire network?

A. NIDS
B. MAC filtering
C. Jump server
D. IPSec
E. NAT gateway

Answer: C

Explanation:
A jump server is a device that acts as an intermediary between users and other devices on a network. A jump server can provide a secure and controlled access

point to the legacy devices without exposing them directly to the network. A jump server can also enforce authentication, authorization, logging, and auditing policies.

NEW QUESTION 229
- (Exam Topic 2)
Which of the following should be addressed first on security devices before connecting to the network?

A. Open permissions
B. Default settings
C. API integration configuration
D. Weak encryption

Answer: B

Explanation:
Before connecting security devices to the network, it is crucial to address default settings first. Manufacturers often ship devices with default settings that include default usernames, passwords, and configurations. These settings are widely known and can be easily exploited by attackers. Changing default settings helps to secure the device and prevent unauthorized access. Reference: CompTIA Security+ SY0-501 Exam Objectives, Section 3.2: "Given a scenario, implement secure systems design." (https://www.comptia.jp/pdf/Security%2B%20SY0-501%20Exam%20Objectives.pdf)

NEW QUESTION 233
- (Exam Topic 2)
An analyst is working on an investigation with multiple alerts for multiple hosts. The hosts are showing signs of being compromised by a fast-spreading worm. Which of the following should be the next step in order to stop the spread?

A. Disconnect every host from the network.
B. Run an AV scan on the entire
C. Scan the hosts that show signs of
D. Place all known-infected hosts on an isolated network

Answer: D

Explanation:
Placing all known-infected hosts on an isolated network is the best way to stop the spread of a worm infection. This will prevent the worm from reaching other hosts on the network and allow the infected hosts to be cleaned and restored. Disconnecting every host from the network is not practical and may disrupt business operations. Running an AV scan on the entire network or scanning the hosts that show signs of infection may not be effective or fast enough to stop a fast-spreading worm.

NEW QUESTION 234
- (Exam Topic 2)
Audit logs indicate an administrative account that belongs to a security engineer has been locked out multiple times during the day. The security engineer has been on vacation (or a few days. Which of the following attacks can the account lockout be attributed to?

A. Backdoor
B. Brute-force
C. Rootkit
D. Trojan

Answer: B

Explanation:
The account lockout can be attributed to a brute-force attack. A brute-force attack is a type of attack where an attacker attempts to guess a user's password by continually trying different combinations of characters. In this case, it is likely that the security engineer's account was locked out due to an attacker attempting to guess their password. Backdoor, rootkit, and Trojan attacks are not relevant in this scenario.

NEW QUESTION 236
- (Exam Topic 2)
Which of the following models offers third-party-hosted, on-demand computing resources that can be shared with multiple organizations over the internet?

A. Public cloud
B. Hybrid cloud
C. Community cloud
D. Private cloud

Answer: A

Explanation:
There are three main models for cloud computing: Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS)12. Each model represents a different part of the cloud computing stack and provides different levels of control, flexibility, and management.
According to one source1, a public cloud is a type of cloud deployment where the cloud resources (such as servers and storage) are owned and operated by a third-party cloud service provider and delivered over the
Internet. A public cloud can be shared with multiple organizations or users who pay for the service on a subscription or pay-as-you-go basis.

NEW QUESTION 240
- (Exam Topic 2)
Which of the following incident response phases should the proper collection of the detected 'ocs and establishment of a chain of custody be performed before?

A. Containment

B. Identification
C. Preparation
D. Recovery

Answer: A

Explanation:
Containment is the phase where the incident response team tries to isolate and stop the spread of the incident12. Before containing the incident, the team should collect and preserve any evidence that may be useful for analysis and investigation12. This includes documenting the incident details, such as date, time, location, source, and impact12. It also includes establishing a chain of custody, which is a record of who handled the evidence, when, where, how, and why3. A chain of custody ensures the integrity and admissibility of the evidence in court or other legal proceedings3.

NEW QUESTION 244
- (Exam Topic 2)
A network security manager wants to implement periodic events that will test the security team's preparedness for incidents in a controlled and scripted manner, Which of the following concepts describes this scenario?

A. Red-team exercise
B. Business continuity plan testing
C. Tabletop exercise
D. Functional exercise

Answer: C

Explanation:
A tabletop exercise is a type of security exercise that involves a simulated scenario of a security incident and a discussion of how the security team would respond to it1. A tabletop exercise is a low-impact and
cost-effective way to test the security team’s preparedness, identify gaps and areas for improvement, and
enhance communication and coordination among team members2. A tabletop exercise is different from a red-team exercise, which is a simulated attack by an authorized group of ethical hackers to test the security defenses and response capabilities of an organization3. A business continuity plan testing is a process of verifying that an organization can continue its essential functions and operations in the event of a disaster or disruption4. A functional exercise is a type of security exercise that involves a realistic simulation of a security incident and requires the security team to perform their roles and responsibilities as if it were a real event.
References: 1:
https://www.isaca.org/resources/isaca-journal/issues/2022/volume-1/cybersecurity-incident-response-exercise-g
2: https://www.linuxjournal.com/content/security-exercises 3:
https://www.imperva.com/learn/application-security/red-team-blue-team/ 4: https://www.ready.gov/business-continuity-plan : https://www.ready.gov/exercises

NEW QUESTION 248
- (Exam Topic 2)
A security analyst is investigating a report from a penetration test. During the penetration test, consultants were able to download sensitive data from a back-end server. The back-end server was exposing an API that should have only been available from the companVs mobile
application. After reviewing the back-end server logs, the security analyst finds the following entries

```
10.35.45.53 - - [22/May/2020:06:57:31 +0100] "GET /api/cliend_id=1 HTTP/1.1" 403 1705 "http://www.example.com/api/" "PostmanRuntime/7.26.5"
10.35.45.53 - - [22/May/2020:07:00:58 +0100] "GET /api/cliend_id=2 HTTP/1.1" 403 1705 "http://www.example.com/api/" "PostmanRuntime/7.22.0"
10.32.40.13 - - [22/May/2020:08:08:52 +0100] "GET /api/cliend_id=1 HTTP/1.1" 302 21703 "http://www.example.com/api/" "CompanyMobileApp/1.1.1"
10.32.40.25 - - [22/May/2020:08:13:52 +0100] "GET /api/cliend_id=1 HTTP/1.1" 200 21703 "http://www.example.com/api/" "CompanyMobileApp/2.3.1"
10.35.45.53 - - [22/May/2020:08:20:18 +0100] "GET /api/cliend_id=2 HTTP/1.1" 200 22405 "http://www.example.com/api/" "CompanyMobileApp/2.3.0"
```

Which of the following is the most likely cause of the security control bypass?

A. IP address allow list
B. user-agent spoofing
C. WAF bypass
D. Referrer manipulation

Answer: B

Explanation:
User-agent spoofing is a technique that allows an attacker to modify the user-agent header of an HTTP request to impersonate another browser or device12. User-agent spoofing can be used to bypass security controls that rely on user-agent filtering or validation12. In this case, the attacker spoofed the user-agent header to match the company’s mobile application, which was allowed to access the back-end server’s API2.

NEW QUESTION 252
- (Exam Topic 2)
A security analyst needs to recommend a solution that will allow current Active Directory accounts and groups to be used for access controls on both network and remote-access devices. Which of the
following should the analyst recommend? (Select two).

A. TACACS+
B. RADIUS
C. OAuth
D. OpenlD
E. Kerberos
F. CHAP

Answer: BE

Explanation:
RADIUS and Kerberos are two protocols that can be used to integrate Active Directory accounts and groups with network and remote-access devices. RADIUS is

a protocol that provides centralized authentication, authorization, and accounting for network access. It can use Active Directory as a backend database to store user credentials and group memberships. Kerberos is a protocol that provides secure authentication and encryption for network services. It is the default authentication protocol for Active Directory and can be used by remote-access devices that support it.

NEW QUESTION 256
- (Exam Topic 2)
A cybersecurity analyst at Company A is working to establish a secure communication channel with a counter part at Company B, which is 3,000 miles (4.828 kilometers) away. Which of the following concepts would help the analyst meet this goal m a secure manner?

A. Digital signatures
B. Key exchange
C. Salting
D. PPTP

Answer: B

Explanation:
Key exchange Short explanation
Key exchange is the process of securely sharing cryptographic keys between two parties over a public network. This allows them to establish a secure communication channel and encrypt their messages. There are different methods of key exchange, such as Diffie-Hellman or RSA. References: https://www.comptia.org/content/guides/what-is-encryption

NEW QUESTION 261
- (Exam Topic 2)
A user is trying unsuccessfully to send images via SMS. The user downloaded the images from a corporate email account on a work phone. Which of the following policies is preventing the user from completing this
action?

A. Application management
B. Content management
C. Containerization
D. Full disk encryption

Answer: B

Explanation:
Content management is a policy that controls what types of data can be accessed, modified, shared, or transferred by users or applications. Content management can prevent data leakage or exfiltration by blocking or restricting certain actions, such as copying, printing, emailing, or sending data via SMS. If the user downloaded the images from a corporate email account on a work phone, the content management policy may prevent the user from sending the images via SMS to protect the confidentiality and integrity of the data.
References: 1
CompTIA Security+ Certification Exam Objectives, page 10, Domain 2.0: Architecture and
Design, Objective 2.4: Explain the importance of embedded and specialized systems security 2
CompTIA Security+ Certification Exam Objectives, page 12, Domain 3.0: Implementation, Objective 3.1: Implement secure network architecture concepts 3
https://www.comptia.org/blog/what-is-data-loss-prevention

NEW QUESTION 262
- (Exam Topic 2)
A company is enhancing the security of the wireless network and needs to ensure only employees with a valid certificate can authenticate to the network. Which of the following should the company implement?

A. PEAP
B. PSK
C. WPA3
D. WPS

Answer: A

Explanation:
PEAP stands for Protected Extensible Authentication Protocol, which is a protocol that can provide secure authentication for wireless networks. PEAP can use certificates to authenticate the server and the client, or only the server. PEAP can also use other methods, such as passwords or tokens, to authenticate the client. PEAP can ensure only employees with a valid certificate can authenticate to the network.

NEW QUESTION 266
- (Exam Topic 2)
Which of the following best describes the situation where a successfully onboarded employee who is using a fingerprint reader is denied access at the company's mam gate?

A. Crossover error rate
B. False match raw
C. False rejection
D. False positive

Answer: C

Explanation:
False rejection Short explanation
A false rejection occurs when a biometric system fails to recognize an authorized user and denies access. This can happen due to poor quality of the biometric sample, environmental factors, or system errors. References: https://www.comptia.org/blog/what-is-biometrics

NEW QUESTION 271
- (Exam Topic 2)
A systems administrator needs to install a new wireless network for authenticated guest access. The wireless network should support 802. IX using the most secure encryption and protocol available.
Perform the following steps:
* 1. Configure the RADIUS server.
* 2. Configure the WiFi controller.
* 3. Preconfigure the client for an incoming guest. The guest AD credentials are:
User: guest01 Password: guestpass

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Wifi Controller
SSID: CORPGUEST
SHARED KEY: Secret
AAA server IP: 192.168.1.20
PSK: Blank
Authentication type: WPA2-EAP-PEAP-MSCHAPv2 Controller IP: 192.168.1.10
Radius Server Shared Key: Secret
Client IP: 192.168.1.10
Authentication Type: Active Directory Server IP: 192.168.1.20
Wireless Client SSID: CORPGUEST
Username: guest01 Userpassword: guestpass PSK: Blank
Authentication type: WPA2-Enterprise

NEW QUESTION 274
- (Exam Topic 1)
A security administrator is setting up a SIEM to help monitor for notable events across the enterprise. Which of the following control types does this BEST represent?

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

Answer: D

Explanation:
A SIEM is a security solution that helps detect security incidents by monitoring for notable events across the enterprise. A detective control is a control that is designed to detect security incidents and respond to them. Therefore, a SIEM represents a detective control.
Reference: CompTIA Security+ Study Guide, Exam SY0-601, Chapter 3: Architecture and Design

NEW QUESTION 278
- (Exam Topic 1)
A company has discovered unauthorized devices are using its WiFi network, and it wants to harden the access point to improve security. Which f the following configuration should an analysis enable
To improve security? (Select TWO.)

A. RADIUS
B. PEAP
C. WPS
D. WEP-EKIP
E. SSL

F. WPA2-PSK

Answer: AF

Explanation:
To improve the security of the WiFi network and prevent unauthorized devices from accessing the network, the configuration options of RADIUS and WPA2-PSK should be enabled. RADIUS (Remote Authentication Dial-In User Service) is an authentication protocol that can be used to control access to the WiFi network. It can provide stronger authentication and authorization than WEP and WPA. WPA2-PSK (WiFi Protected Access 2 with Pre-Shared Key) is a security protocol that uses stronger encryption than WEP and WPA. It requires a pre-shared key (PSK) to be entered on each device that wants to access the network. This helps prevent unauthorized devices from accessing the network.

NEW QUESTION 280
- (Exam Topic 1)
An enterprise needs to keep cryptographic keys in a safe manner. Which of the following network appliances can achieve this goal?

A. HSM
B. CASB
C. TPM
D. DLP

Answer: A

Explanation:
Hardware Security Module (HSM) is a network appliance designed to securely store cryptographic keys and perform cryptographic operations. HSMs provide a secure environment for key management and can be used to keep cryptographic keys safe from theft, loss, or unauthorized access. Therefore, an enterprise can achieve the goal of keeping cryptographic keys in a safe manner by using an HSM appliance. References: CompTIA Security+ Certification Exam Objectives, Exam Domain 2.0: Technologies and Tools, 2.4 Given a scenario, use appropriate tools and techniques to troubleshoot security issues, p. 21

NEW QUESTION 283
- (Exam Topic 1)
The Chief Information Security Officer (CISO) has decided to reorganize security staff to concentrate on incident response and to outsource outbound Internet URL categorization and filtering to an outside company.
Additionally, the CISO would like this solution to provide the same protections even when a company laptop or mobile device is away from a home office. Which of the following should the CISO choose?

A. CASB
B. Next-generation SWG
C. NGFW
D. Web-application firewall

Answer: B

Explanation:
The solution that the CISO should choose is Next-generation Secure Web Gateway (SWG), which provides URL filtering and categorization to prevent users from accessing malicious sites, even when they are away from the office. NGFWs are typically cloud-based and offer multiple security layers, including malware detection, intrusion prevention, and data loss prevention. References:
CompTIA Security+ Study Guide Exam SY0-601, Chapter 4

NEW QUESTION 286
- (Exam Topic 1)
An attacker replaces a digitally signed document with another version that goes unnoticed Upon reviewing the document's contents the author notices some additional verbiage that was not originally in the document but cannot validate an integrity issue. Which of the following attacks was used?

A. Cryptomalware
B. Hash substitution
C. Collision
D. Phishing

Answer: B

Explanation:
This type of attack occurs when an attacker replaces a digitally signed document with another version that has a different hash value. The author would be able to notice the additional verbiage, however, since the hash value would have changed, they would not be able to validate an integrity issue.

NEW QUESTION 289
- (Exam Topic 1)
After a WiFi scan of a local office was conducted, an unknown wireless signal was identified Upon investigation, an unknown Raspberry Pi device was found connected to an Ethernet port using a single connection. Which of the following BEST describes the purpose of this device?

A. loT sensor
B. Evil twin
C. Rogue access point
D. On-path attack

Answer: C

Explanation:
A Raspberry Pi device connected to an Ethernet port could be configured as a rogue access point, allowing an attacker to intercept and analyze network traffic or

perform other malicious activities. References: CompTIA Security+ SY0-601 Exam Objectives: 3.2 Given a scenario, implement secure network architecture concepts.

NEW QUESTION 291
- (Exam Topic 1)
A new security engineer has started hardening systems. One of the hardening techniques the engineer is using involves disabling remote logins to the NAS. Users are now reporting the inability to use SCP to transfer files to the NAS, even through the data is still viewable from the user's PCs. Which of the following is the most likely cause of this issue?

A. TFTP was disabled on the local hosts
B. SSH was turned off instead of modifying the configuration file
C. Remote login was disabled in the networkd.config instead of using the sshd.conf
D. Network services are no longer running on the NAS

Answer: B

Explanation:
SSH stands for Secure Shell Protocol, which is a cryptographic network protocol that allows secure remote login and command execution on a network device12. SSH can encrypt both the authentication information and the data being exchanged between the client and the server2. SSH can be used to access and manage a NAS device remotely3.

NEW QUESTION 293
- (Exam Topic 1)
If a current private key is compromised, which of the following would ensure it cannot be used to decrypt ail historical data?

A. Perfect forward secrecy
B. Elliptic-curve cryptography
C. Key stretching
D. Homomorphic encryption

Answer: B

Explanation:
Perfect forward secrecy would ensure that it cannot be used to decrypt all historical data. Perfect forward secrecy (PFS) is a security protocol that generates a unique session key for each session between two parties. This ensures that even if one session key is compromised, it cannot be used to decrypt other sessions.

NEW QUESTION 294
- (Exam Topic 1)
An organization discovered a disgruntled employee exfiltrated a large amount of PII data by uploading files Which of the following controls should the organization consider to mitigate this risk?

A. EDR
B. Firewall
C. HIPS
D. DLP

Answer: D

Explanation:
DLP stands for data loss prevention, which is a set of tools and processes that aim to prevent unauthorized access, use, or transfer of sensitive data. DLP can help mitigate the risk of data exfiltration by disgruntled employees or external attackers by monitoring and controlling data flows across endpoints, networks, and cloud services. DLP can also detect and block attempts to copy, print, email, upload, or download sensitive data based on predefined policies and rules.
References: https://www.comptia.org/certifications/security#examdetails https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives https://www.forcepoint.com/cyber-edu/data-loss-prevention-dlp

NEW QUESTION 296
- (Exam Topic 1)
Which of the following controls would be the MOST cost-effective and time-efficient to deter intrusions at the perimeter of a restricted, remote military training area? (Select TWO).

A. Barricades
B. Thermal sensors
C. Drones
D. Signage
E. Motion sensors
F. Guards
G. Bollards

Answer: AD

Explanation:
Barricades and signage are the most cost-effective and time-efficient controls to deter intrusions at the perimeter of a restricted, remote military training area.
References:
- CompTIA Security+ Study Guide Exam SY0-601, Chapter 7

NEW QUESTION 299
- (Exam Topic 1)

A Chief Information Officer is concerned about employees using company-issued laptops to steal data when accessing network shares. Which of the following should the company implement?

A. DLP
B. CASB
C. HIDS
D. EDR
E. UEFI

Answer: A

Explanation:
The company should implement Data Loss Prevention (DLP) to prevent employees from stealing data. References: CompTIA Security+ Study Guide: Exam SY0-601, Chapter 8

NEW QUESTION 301
- (Exam Topic 1)
A security researcher has alerted an organization that its sensitive user data was found for sale on a website. Which of the following should the organization use to inform the affected parties?

A. An incident response plan
B. A communications plan
C. A business continuity plan
D. A disaster recovery plan

Answer: B

Explanation:
A communications plan should be used to inform the affected parties about the sale of sensitive user data on a website. The communications plan should detail how the organization will handle media inquiries, how to communicate with customers, and how to respond to other interested parties.

NEW QUESTION 306
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