**Exam** : **SY0-601**


**Title** : CompTIA Security+ Exam


**Vendor** : CompTIA


**Version** : V35.95

**NO.1** Which of the following is the BEST action to foster a consistent and auditable incident response process?
(A). Incent new hires to constantly update the document with external knowledge.
(B). Publish the document in a central repository that is easily accessible to the organization.
(C). Restrict eligibility to comment on the process to subject matter experts of each IT silo.
(D). Rotate CIRT members to foster a shared responsibility model in the organization.
*Answer:* D

**NO.2** Which of the following will increase cryptographic security?
(A). High data entropy
(B). Algorithms that require less computing power
(C). Longer key longevity
(D). Hashing
*Answer:* C

**NO.3** Which of the following is the MOST effective way to detect security flaws present on third-party libraries embedded on software before it is released into production?
(A). Employ different techniques for server- and client-side validations.
(B). Use a different version control system for third-party libraries.
(C). Implement a vulnerability scan to assess dependencies earlier on SDLC.
(D). Increase the number of penetration tests before software release.
*Answer:* C

**NO.4** During a trial, a judge determined evidence gathered from a hard drive was not admissible. Which of the following BEST explains this reasoning?
(A). The forensic investigator forgot to run a checksum on the disk image after creation
(B). The chain of custody form did not note time zone offsets between transportation regions
(C). The computer was turned off. and a RAM image could not be taken at the same time
(D). The hard drive was not properly kept in an antistatic bag when rt was moved
*Answer:* A

**NO.5** Which of the following BEST reduces the security risks introduced when running systems that have expired vendor support and lack an immediate replacement?
(A). Implement proper network access restrictions
(B). Initiate a bug bounty program
(C). Classify the system as shadow IT.
(D). Increase the frequency of vulnerability scans
*Answer:* A

**NO.6** A customer service representative reported an unusual text message that was sent to the help desk. The message contained an unrecognized invoice number with a large balance due and a link to click for more details. Which of the following BEST descnbes this technique?
(A). Vishing
(B). Whaling
(C). Phishing
(D). Smishing

*Answer:* D

**NO.7** A vulnerability has been discovered and a known patch to address the vulnerability does not exist. Which of the following controls works BEST until a proper fix is released?
(A). Detective
(B). Compensating
(C). Deterrent
(D). Corrective
*Answer:* A

**NO.8** An organization maintains several environments in which patches are developed and tested before deployed to an operation status. Which of the following is the environment in which patches will be deployed just prior to being put into an operational status?
(A). Development
(B). Test
(C). Production
(D). Staging
*Answer:* D
Explanation
The staging environment is an optional environment, but it is commonly used when an organization has multiple production environments. After passing testing, the system moves into staging, from where it can be deployed to the different production systems.

**NO.9** An analyst receives multiple alerts for beaconing activity for a host on the network, After analyzing the activity, the analyst observes the following activity:
* A user enters comptia.org into a web browser.
* The website that appears is not the comptia.org site.
* The website is a malicious site from the attacker.
* Users in a different office are not having this issue.
Which of the following types of attacks was observed?
(A). On-path attack
(B). DNS poisoning
(C). Locator (URL) redirection
(D). Domain hijacking
*Answer:* C

**NO.10** The president of a regional bank likes to frequently provide SOC tours to potential investors. Which of the following policies BEST reduces the risk of malicious activity occurring after a tour?
(A). Password complexity
(B). Acceptable use
(C). Access control
(D). Clean desk
*Answer:* C

**NO.11** A company is implementing a DLP solution on the file server. The file server has Pll. financial information, and health information stored on it Depending on what type of data that is hosted on

the file server, the company wants different DLP rules assigned to the data Which of the following should the company do to help accomplish this goal?

(A). Classify the data

(B). Mask the data

(C). Assign an application owner

(D). Perform a risk analysis

*Answer:* A

**NO.12** Which of the following is a reason to publish files' hashes?

(A). To validate the integrity of the files

(B). To verify if the software was digitally signed

(C). To use the hash as a software activation key

(D). To use the hash as a decryption passphrase

*Answer:* B

**NO.13** A security analyst is working on a project to implement a solution that monitors network communications and provides alerts when abnormal behavior is detected Which of the following is the security analyst MOST likely implementing?

(A). Vulnerability scans

(B). User behavior analysis

(C). Security orchestration, automation, and response

(D). Threat hunting

*Answer:* B

**NO.14** A company suspects that some corporate accounts were compromised. The number of suspicious logins from locations not recognized by the users is increasing Employees who travel need their accounts protected without the nsk of blocking legitimate login requests that may be made over new sign-in properties. Which of the following security controls can be implemented?

(A). Enforce MFA when an account request reaches a nsk threshold

(B). Implement geofencing to only allow access from headquarters

(C). Enforce time-based login requests that align with business hours

(D). Shift the access control scheme to a discretionary access control

*Answer:* B

**NO.15** A security analyst is investigating suspicious traffic on the web server located at IP address 10.10.1.1. A search of the WAF logs reveals the following output:

| Source IP | Destination IP | Requested URL | Action Taken |
|-----------|----------------|---------------|--------------|
| 172.16.1.3 | 10.10.1.1 | /web/cgi-bin/contact?<br>category=custname'-- | permit and log |
| 172.16.1.3 | 10.10.1.1 | /web/cgi-bin/contact?<br>category=custname+OR+1=1-- | permit and log |

Which of the following is MOST likely occurring?

(A). XSS attack

(B). SQLi attack

(C). Replay attack

(D). XSRF attack
*Answer:* B

**NO.16** A forensics investigator is examining a number of unauthorized payments the were reported on the company's website. Some unusual log entries show users received an email for an unwanted mailing list and clicked on a link to attempt to unsubscribe. One of the users reported the email to the phishing team, and the forwarded email revealed the link to be:
<a href-"https://www.company.com/payto.do?routing=00001111&accc=22223334&amount-250">Click here to unsubscribe</a> Which of the following will the forensics investigator MOST likely determine has occurred?
(A). SQL injection
(B). CSRF
(C). XSS
(D). XSRF
*Answer:* D

**NO.17** An untrusted SSL certificate was discovered during the most recent vulnerability scan. A security analyst determines the certificate is signed properly and is a valid wildcard. This same certificate is installed on other company servers without issue. Which of the following is the MOST likely reason for this finding?
(A). The required intermediate certificate is not loaded as part of the certificate chain.
(B). The certificate is on the CRL and is no longer valid.
(C). The corporate CA has expired on every server, causing the certificate to fail verification.
(D). The scanner is incorrectly configured to not trust this certificate when detected on the server.
*Answer:* A

**NO.18** The Chief Information Security Officer (CISO) of a bank recently updated the incident response policy. The CISO is concerned that members of the incident response team do not understand their roles. The bank wants to test the policy but with the least amount of resources or impact. Which of the following BEST meets the requirements?
(A). Warm site failover
(B). Tabletop walk-through
(C). Parallel path testing
(D). Full outage simulation
*Answer:* B

**NO.19** A security engineer was assigned to implement a solution to prevent attackers from gaining access by pretending to be authorized users. Which of the following technologies meets the requirement?
(A). SSO
(B). IDS
(C). MFA
(D). TPM
*Answer:* C

**NO.20** An annual information security assessment has revealed that several OS-level configurations

are not in compliance due to outdated hardening standards the company is using. Which of the following would be BEST to use to update and reconfigure the OS-level security configurations?

(A). CIS benchmarks

(B). GDPR guidance

(C). Regional regulations

(D). ISO 27001 standards

*Answer:* A

Explanation

https://www.beyondtrust.com/resources/glossary/systems-hardening

**NO.21** A company wants the ability to restrict web access and monitor the websites that employees visit. Which of the following would BEST meet these requirements?

(A). internet proxy

(B). VPN

(C). WAF

(D). Firewall

*Answer:* C

**NO.22** A company wants to restrict emailing of PHI documents. The company is implementing a DLP solution In order to reslnct PHI documents which of the following should be performed FIRST?

(A). Retention

(B). Governance

(C). Classification

(D). Change management

*Answer:* C

**NO.23** Which of the following employee roles is responsible for protecting an organization's collected personal information?

(A). CTO

(B). DPO

(C). CEO

(D). DBA

*Answer:* B

Explanation

Many companies also have a data protection officer or DPO. This is a higher-level manager who is responsible for the organization

https://www.professormesser.com/security-plus/sy0-601/sy0-601-video/data-roles-and-responsibilities/#:~:text=M

**NO.24** A security analyst is tasked with defining the "something you are" factor of the company's MFA settings.

Which of the following is BEST to use to complete the configuration?

(A). Gait analysis

(B). Vein

(C). Soft token

(D). HMAC-based, one-time password

*Answer:* C

**NO.25** A Chief Security Officer is looking for a solution that can provide increased scalability and flexibility for back-end infrastructure, allowing it to be updated and modified without disruption to services. The security architect would like the solution selected to reduce the back-end server resources and has highlighted that session persistence is not important for the applications running on the back-end servers. Which of the following would BEST meet the requirements?
(A). Reverse proxy
(B). Automated patch management
(C). Snapshots
(D). NIC teaming
*Answer:* A
Explanation
A reverse proxy would be the best solution for increased scalability and flexibility for back-end infrastructure.

**NO.26** A user wanted to catch up on some work over the weekend but had issues logging in to the corporate network using a VPN. On Monday, the user opened a ticket for this issue but was able to log in successfully. Which of the following BEST describes the policy that is being implemented?
(A). Time-based logins
(B). Geofencing
(C). Network location
(D). Password history
*Answer:* C

**NO.27** A company wants to improve end users experiences when they tog in to a trusted partner website The company does not want the users to be issued separate credentials for the partner website Which of the following should be implemented to allow users to authenticate using their own credentials to log in to the trusted partner's website?
(A). Directory service
(B). AAA server
(C). Federation
(D). Multifactor authentication
*Answer:* C

**NO.28** An attacker was eavesdropping on a user who was shopping online. The attacker was able to spoof the IP address associated with the shopping site. Later, the user received an email regarding the credit card statement with unusual purchases. Which of the following attacks took place?
(A). On-path attack
(B). Protocol poisoning
(C). Domain hijacking
(D). Bluejacking
*Answer:* A

**NO.29** To reduce and limit software and infrastructure costs, the Chief Information Officer has requested to move email services to the cloud. The cloud provider and the organization must have

security controls to protect sensitive data. Which of the following cloud services would BEST accommodate the request?

(A). Iaas
(B). Paas
(C). Daas
(D). SaaS

*Answer:* B

**NO.30** A new company wants to avoid channel interference when building a WLAN. The company needs to know the radio frequency behavior, identify dead zones, and determine the best place for access points. Which of the following should be done FIRST?

(A). Configure heat maps.
(B). Utilize captive portals.
(C). Conduct a site survey.
(D). Install Wi-Fi analyzers.

*Answer:* A

**NO.31** Which of the following organizations sets frameworks and controls for optimal security configuration on systems?

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

*Answer:* D

**NO.32** A security analyst is concerned about critical vulnerabilities that have been detected on some applications running inside containers Which of the following is the BEST remediation strategy?

(A). Update the base container image and redeploy the environment
(B). Include the containers in the regular patching schedule for servers
(C). Patch each running container individually and test the application
(D). Update the host in which the containers are running

*Answer:* C

**NO.33** Security analysts are conducting an investigation of an attack that occurred inside the organization's network.

An attacker was able to connect network traffic between workstation throughout the network. The analysts review the following logs:

| VLAN | Address |
| --- | --- |
| 1 | 0007.1e5d.3213 |
| 1 | 002a.7d.44.8801 |
| 1 | 0011.aab4.344d |

The layer 2 address table has hundred of entries similar to the ones above. Which of the following

attacks has MOST likely occurred?
(A). SQL injection
(B). DNS spoofing
(C). MAC flooding
(D). ARP poisoning
*Answer:* D

**NO.34** Several attempts have been made lo pick the door lock of a secure facility As a result the security engineer has been assigned to implement a stronger preventative access control Which of the following would BEST complete the engineer's assignment?
(A). Replacing the traditional key with an RFID key
B Installing and monitoring a camera facing the door
(B). Setting motion-sensing lights to illuminate the door on activity
(C). Surrounding the property with fencing and gates
*Answer:* C

**NO.35** Which of the following is the MOST effective control against zero-day vulnerabilities?
(A). Network segmentation
(B). Patch management
(C). Intrusion prevention system
(D). Multiple vulnerability scanners
*Answer:* A

**NO.36** A large financial services firm recently released information regarding a security breach within its corporate network that began several years before. During the time frame in which the breach occurred, indicators show an attacker gained administrative access to the network through a file downloaded from a social media site and subsequently installed it without the user's knowledge. Since the compromise, the attacker was able to take command and control the computer systems anonymously while obtaining sensitive corporate and personal employee information. Which of the following methods did the attacker MOST likely use to gain access?
(A). A bot
(B). A fileless virus
(C). A logic bomb
(D). A RAT
*Answer:* D
Explanation
Remote access trojans (RATs) are malware designed to allow an attacker to remotely control an infected computer. Once the RAT is running on a compromised system, the attacker can send commands to it and receive data back in response.

**NO.37** A company is required to continue using legacy software to support a critical service. Which of the following BEST explains a risk of this practice?
(A). Default system configuration
(B). Unsecure protocols
(C). Lack of vendor support
(D). Weak encryption

*Answer:* B

**NO.38** An attacker has successfully exfiltrated several non-salted password hashes from an online system. Given the logs below:

```
Session          : hashcat
Status           : cracked
Hash.Type        : MD5
Hash.Target      : b3b81d1b7a412bf5aab3a507d0a586a0
Time.Started     : Fri Mar 10 10:18:45 2020
Recovered        : 1/1 (100%) Digests
Progress         : 28756845 / 450365879 (6.38%) hashes
Time.Stopped     : Fri Mar 10 10:20:12 2020
Password found   : Th3B3stP@55w0rd!
```

Which of the following BEST describes the type of password attack the attacker is performing?
(A). Dictionary
(B). Pass-the-hash
(C). Brute-force
(D). Password spraying
*Answer:* A

**NO.39** A company is implementing BYOD and wants to ensure all users have access to the same cloud-based services. Which of the following would BEST allow the company to meet this requirement?
(A). IaaS
(B). PasS
(C). MaaS
(D). SaaS
*Answer:* D

**NO.40** During a recent incident an external attacker was able to exploit an SMB vulnerability over the internet. Which of the following action items should a security analyst perform FIRST to prevent this from occurring again?
(A). Check for any recent SMB CVEs
(B). Install AV on the affected server
(C). Block unneeded TCP 445 connections
(D). Deploy a NIDS in the affected subnet
*Answer:* C

**NO.41** An organization is planning to roll out a new mobile device policy and issue each employee a new laptop, These laptops would access the users' corporate operating system remotely and allow them to use the laptops for purposes outside of their job roles. Which of the following deployment models is being utilized?
(A). MDM and application management
(B). BYOO and containers
(C). COPE and VDI

(D). CYOD and VMs

*Answer:* C

**NO.42** An administrator needs to protect user passwords and has been advised to hash the passwords. Which of the following BEST describes what the administrator is being advised to do?
(A). Perform a mathematical operation on the passwords that will convert them into umgue stnngs
(B). Add extra data to the passwords so their length is increased, making them harder to brute force
(C). Store all passwords in the system in a rainbow table that has a centralized location
(D). Enforce the use of one-time passwords that are changed for every login session.

*Answer:* D

**NO.43** A security manager has tasked the security operations center with locating all web servers that respond to an unsecure protocol. Which of the following commands could an analyst run to find requested servers?
(A). nslookup 10.10.10.0
(B). nmap -p 80 10.10.10.0/24
(C). pathping 10.10.10.0 -p 80
(D). no -1 -p 80

*Answer:* C

**NO.44** Which of the following describes the continuous delivery software development methodology?
(A). Waterfall
(B). Spiral
(C). V-shaped
(D). Agile

*Answer:* D

**NO.45** An ofgantzation has decided to purchase an insurance policy because a risk assessment determined that the cost to remediate the risk is greater than the five-year cost of the insurance policy. The organization is enabling risk
(A). avoidance
(B). acceptance
(C). mitigation
(D). transference

*Answer:* D

**NO.46** An audit Identified Pll being utilized In the development environment of a critical application. The Chief Privacy Officer (CPO) Is adamant that this data must be removed; however, the developers are concerned that without real data they cannot perform functionality tests and search for specific data. Which of the following should a security professional implement to BEST satisfy both the CPO's and the development team's requirements?
(A). Data anonymlzallon
(B). Data encryption
(C). Data masking
(D). Data tokenization

*Answer:* A

**NO.47** A security analyst wants to fingerpnnt a web server Which of the following tools will the security analyst MOST likely use to accomplish this task?
(A). nmap -p1-65S35 192.168.0.10
(B). dig 192.168.0.10
(C). cur1
--htad http://192.168.0.10
(D). ping 192.168.0.10
*Answer:* C
Explanation
HTTP/1.1 301 Moved Permanently
Server: cloudflare
Date: Thu, 01 Sep 2022 22:36:50 GMT
Content-Type: text/html
Content-Length: 167
Connection: keep-alive
Location: https://1.1.1.1/
CF-RAY: 74417cb04d6b9a50-MFE

**NO.48** A security administrator is analyzing the corporate wireless network The network only has two access points running on channels 1 and 11. While using airodump-ng. the administrator notices other access points are running with the same corporate ESSID on all available channels and with the same BSSID of one of the legitimate access ports Which of the following attacks in happening on the corporate network?
(A). Man in the middle
(B). Evil twin
(C). Jamming
(D). Rogue access point
(E). Disassociation
*Answer:* B

**NO.49** An attacker browses a company's online job board attempting to find any relevant information regarding the technologies the company uses. Which of the following BEST describes this social engineering technique?
(A). Hoax
(B). Reconnaissance
(C). Impersonation
(D). pretexting
*Answer:* A

**NO.50** A company is under investigation for possible fraud. As part of the investigation. the authorities need to review all emails and ensure data is not deleted.
Which of the following should the company implement to assist in the investigation?

(A). Legal hold
(B). Chain of custody
(C). Data loss prevention
(D). Content filter

*Answer:* C

**NO.51** A Chief Information Security Officer has defined resiliency requirements for a new data center architecture The requirements are as follows
* Critical fileshares will remain accessible during and after a natural disaster
* Frve percent of hard disks can fail at any given time without impacting the data.
* Systems will be forced to shut down gracefully when battery levels are below 20% Which of the following are required to BEST meet these objectives? (Select THREE)
(A). Fiber switching
(B). IaC
(C). NAS
(D). RAID
(E). UPS
(F). Redundant power supplies
(G). Geographic dispersal
(H). Snapshots
(I). Load balancing

*Answer:* D,E,G

**NO.52** Which of the following supplies non-repudiation during a forensics investigation?
(A). Dumping volatile memory contents first
(B). Duplicating a drive with dd
(C). Using a SHA-2 signature of a drive image
(D). Logging everyone in contact with evidence
(E). Encrypting sensitive data

*Answer:* C

**NO.53** Which of the following concepts BEST describes tracking and documenting changes to software and managing access to files and systems?
(A). Version control
(B). Continuous monitoring
(C). Stored procedures
(D). Automation

*Answer:* A
Explanation
Version control, also known as source control, is the process of tracking and managing changes to files over time. VCS - version control systems - are software tools designed to help teams work i n parallel.
https://www.perforce.com/blog/vcs/what-is-version-control

**NO.54** Which of the following is the GREATEST security concern when outsourcing code development to third-party contractors for an internet-facing application?

(A). Intellectual property theft
(B). Elevated privileges
(C). Unknown backdoor
(D). Quality assurance
*Answer:* C

**NO.55** Which of the following would be the BEST way to analyze diskless malware that has infected a VDI?
(A). Shut down the VDI and copy off the event logs.
(B). Take a memory snapshot of the running system.
(C). Use NetFlow to identify command-and-control IPs.
(D). Run a full on-demand scan of the root volume.
*Answer:* B

**NO.56** A security analyst is investigating some users who are being redirected to a fake website that resembles www.comptia.org. The following output was found on the naming server of the organization:



Which of the following attacks has taken place?
(A). Domain reputation
(B). Domain hijacking
(C). Disassociation
(D). DNS poisoning
*Answer:* D

**NO.57** Which of the following is used to ensure that evidence is admissible in legal proceedings when it is collected and provided to the authorities?
(A). Chain of custody
(B). Legal hold
(C). Event log
(D). Artifacts
*Answer:* A

**NO.58** A security analyst generated a file named host1.pcap and shared it with a team member who is going to use it for further incident analysis. Which of the following tools will the other team member MOST likely use to open this file?
(A). Autopsy
(B). Memdump
(C). FTK imager
(D). Wireshark
*Answer:* D
Explanation

Some common applications that can open .pcap files are Wireshark, WinDump, tcpdump, Packet Square - Capedit and Ethereal.

**NO.59** The board of doctors at a company contracted with an insurance firm to limit the organization's liability.
Which of the following risk management practices does the BEST describe?
(A). Transference
(B). Avoidance
(C). Mitigation
(D). Acknowledgement
*Answer:* A

**NO.60** The database administration team is requesting guidance for a secure solution that will ensure confidentiality of cardholder data at rest only in certain fields in the database schema. The requirement is to substitute a sensitive data field with a non-sensitive field that is rendered useless if a data breach occurs Which of the following is the BEST solution to meet the requirement?
(A). Tokenization
(B). Masking
(C). Full disk encryption
(D). Mirroring
*Answer:* B

**NO.61** Which of the following would BEST provide detective and corrective controls for thermal regulation?
(A). A smoke detector
(B). A fire alarm
(C). An HVAC system
(D). A fire suppression system
(E). Guards
*Answer:* C
Explanation
What are the functions of an HVAC system?
An HVAC system is designed to control the environment in which it works. It achieves this by controlling the temperature (THERMAL) of a room through heating and cooling. It also controls the humidity level in that environment by controlling the movement and distribution of air inside the room. So it provides detective and corrective controls for THERMAL regulation.

**NO.62** An organization implemented a process that compares the settings currently configured on systems against secure configuration guidelines in order to identify any gaps Which of the following control types has the organization implemented?
(A). Compensating
(B). Corrective
(C). Preventive
(D). Detective
*Answer:* C
Explanation

the control acts to eliminate or reduce the likelihood that an attack can succeed. A preventative control operates before an attack can take place. Compensating means to substitute one control with another (not happened here), Corrective means the attack has already happened (no mentioning), and detective is incorrect because the detective control detects ATTACKS, not vulnerabilities.

**NO.63** A company is moving its retail website to a public cloud provider. The company wants to tokenize credit card data but not allow the cloud provider to see the stored credit card information. Which of the following would BEST meet these objectives?
(A). WAF
(B). CASB
(C). VPN
(D). TLS
*Answer:* B

**NO.64** A DBA reports that several production server hard drives were wiped over the weekend. The DBA also reports that several Linux servers were unavailable due to system files being deleted unexpectedly. A security analyst verified that software was configured to delete data deliberately from those servers. No backdoors to any servers were found. Which of the following attacks was MOST likely used to cause the data toss?
(A). Logic bomb
(B). Ransomware
(C). Fileless virus
(D). Remote access Trojans
(E). Rootkit
*Answer:* A

**NO.65** Select the appropriate attack and remediation from each drop-down list to label the corresponding attack with its remediation.
INSTRUCTIONS
Not all attacks and remediation actions will be used.
If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.

| Attack Description | Target | Attack Identified | BEST Preventative or Remediation Action |
|---|---|---|---|
| An attacker sends multiple SYN packets from multiple sources. | Web server | ▼ Botnet RAT Logic Bomb Backdoor Virus Spyware Worm Adware Ransomware Keylogger Phishing | ▼ Enable DDoS protection Patch vulnerable systems Disable vulnerable services Change the default system password Update the cryptographic algorithms Change the default application password Implement 2FA using push notification Conduct a code review Implement application fuzzing Implement a host-based IPS Disable remote access services |
| The attack establishes a connection, which allows remote commands to be executed. | User | ▼ Botnet RAT Logic Bomb Backdoor Virus Spyware Worm Adware Ransomware Keylogger Phishing | ▼ Enable DDoS protection Patch vulnerable systems Disable vulnerable services Change the default system password Update the cryptographic algorithms Change the default application password Implement 2FA using push notification Conduct a code review Implement application fuzzing Implement a host-based IPS Disable remote access services |
| The attack is self propagating and compromises a SQL database using well-known credentials as it moves through the network. | Database server | ▼ Botnet RAT Logic Bomb Backdoor Virus Spyware Worm Adware Ransomware Keylogger Phishing | ▼ Enable DDoS protection Patch vulnerable systems Disable vulnerable services Change the default system password Update the cryptographic algorithms Change the default application password Implement 2FA using push notification Conduct a code review Implement application fuzzing Implement a host-based IPS Disable remote access services |
| The attacker uses hardware to remotely monitor a user's input activity to harvest credentials. | Executive | ▼ Botnet RAT Logic Bomb Backdoor Virus Spyware Worm Adware Ransomware Keylogger Phishing | ▼ Enable DDoS protection Patch vulnerable systems Disable vulnerable services Change the default system password Update the cryptographic algorithms Change the default application password Implement 2FA using push notification Conduct a code review Implement application fuzzing Implement a host-based IPS Disable remote access services |
| The attacker embeds hidden access in an internally developed application that bypasses account login. | Application | ▼ Botnet RAT Logic Bomb Backdoor Virus Spyware Worm Adware Ransomware Keylogger Phishing | ▼ Enable DDoS protection Patch vulnerable systems Disable vulnerable services Change the default system password Update the cryptographic algorithms Change the default application password Implement 2FA using push notification Conduct a code review Implement application fuzzing Implement a host-based IPS Disable remote access services |

*Answer:*

| Attack Description | Target | Attack Identified | BEST Preventative or Remediation Action |
|---|---|---|---|
| An attacker sends multiple SYN packets from multiple sources. | Web server | **Botnet** / RAT / Logic Bomb / Backdoor / Virus / Spyware / Worm / Adware / Ransomware / Keylogger / Phishing | **Enable DDoS protection** / Patch vulnerable systems / Disable vulnerable services / Change the default system password / Update the cryptographic algorithms / Change the default application password / Implement 2FA using push notification / Conduct a code review / Implement application fuzzing / Implement a host-based IPS / Disable remote access services |
| The attack establishes a connection, which allows remote commands to be executed. | User | Botnet / **RAT** / Logic Bomb / Backdoor / Virus / Spyware / Worm / Adware / Ransomware / Keylogger / Phishing | Enable DDoS protection / Patch vulnerable systems / Disable vulnerable services / Change the default system password / Update the cryptographic algorithms / Change the default application password / Implement 2FA using push notification / Conduct a code review / Implement application fuzzing / **Implement a host-based IPS** / Disable remote access services |
| The attack is self propagating and compromises a SQL database using well-known credentials as it moves through the network. | Database server | Botnet / RAT / Logic Bomb / Backdoor / Virus / Spyware / **Worm** / Adware / Ransomware / Keylogger / Phishing | Enable DDoS protection / Patch vulnerable systems / Disable vulnerable services / Change the default system password / Update the cryptographic algorithms / **Change the default application password** / Implement 2FA using push notification / Conduct a code review / Implement application fuzzing / Implement a host-based IPS / Disable remote access services |
| The attacker uses hardware to remotely monitor a user's input activity to harvest credentials. | Executive | Botnet / RAT / Logic Bomb / Backdoor / Virus / Spyware / Worm / Adware / Ransomware / **Keylogger** / Phishing | Enable DDoS protection / Patch vulnerable systems / **Disable vulnerable services** / Change the default system password / Update the cryptographic algorithms / Change the default application password / Implement 2FA using push notification / Conduct a code review / Implement application fuzzing / Implement a host-based IPS / Disable remote access services |
| The attacker embeds hidden access in an internally developed application that bypasses account login. | Application | Botnet / RAT / Logic Bomb / **Backdoor** / Virus / Spyware / Worm / Adware / Ransomware / Keylogger / Phishing | Enable DDoS protection / Patch vulnerable systems / Disable vulnerable services / Change the default system password / Update the cryptographic algorithms / Change the default application password / **Implement 2FA using push notification** / Conduct a code review / Implement application fuzzing / Implement a host-based IPS / Disable remote access services |

Explanation
Web serverBotnet Enable DDoS protection RAT Implement a host-based IPSDatabase server Worm

Change the default application password KeyloggerDisable vulnerable servicesApplication Backdoor Implement 2FA using push notification Graphical user interface, application Description automatically generated

| Attack Description | Target | Attack Identified | BEST Preventative or Remediation Action |
|---|---|---|---|
| An attacker sends multiple SYN packets from multiple sources. | Web server | Botnet ▼ | Enable DDoS protection ▼ |
| The attack establishes a connection, which allows remote commands to be executed. | User | RAT ▼ | Implement a host-based IPS ▼ |
| The attack is self propagating and compromises a SQL database using well-known credentials as it moves through the network. | Database server | Worm ▼ | Change the default application password ▼ |
| The attacker uses hardware to remotely monitor a user's input activity to harvest credentials. | Executive | Keylogger ▼ | Disable vulnerable services ▼ |
| The attacker embeds hidden access in an internally developed application that bypasses account login. | Application | Backdoor ▼ | Implement 2FA using push notification ▼ |

**NO.66** Which biometric error would allow an unauthorized user to access a system?
(A). False acceptance
(B). False entrance
(C). False rejection
(D). False denial
*Answer:* C

**NO.67** An organization has developed an application that needs a patch to fix a critical vulnerability In which of the following environments should the patch be deployed LAST?
(A). Test
(B). Staging
(C). Development
(D). Production
*Answer:* B

**NO.68** A network administrator has been alerted that web pages are experiencing long load times. After determining it is not a routing or DNS issue, the administrator logs in to the router, runs a command, and receives the following output:

```
CPU 0 percent busy, from 300 sec ago
1 sec ave: 99 percent busy
5 sec ave: 97 percent busy
1 min ave: 83 percent busy
```

Which of the following is the router experiencing?
(A). DDoS attack
(B). Memory leak
(C). Buffer overflow
(D). Resource exhaustion

*Answer:* D

**NO.69** Which of the following prevents an employee from seeing a colleague who is visting an inappropriate website?
(A). Job roration policy
(B). NDA
(C). AUP
(D). Separation of duties policy
*Answer:* C

**NO.70** Multiple business accounts were compromised a few days after a public website had its credentials database leaked on the internet No business emails were Identified in the breach, but the security team thinks that the list of passwords exposed was later used to compromise business accounls Which of Ihe following would mitigate the issue?
(A). Complexity requirements
(B). Password history
(C). Acceptable use policy
(D). Shared accounts
*Answer:* C

**NO.71** A company wants to simplify the certificate management process. The company has a single domain with several dozen subdomains, all of which are publicly accessible on the internet. Which of the following BEST describes the type of certificate the company should implement?
(A). Subject alternative name
(B). Wildcard
(C). Self-signed
(D). Domain validation
*Answer:* B
Explanation
Wildcard SSL certificates are for a single domain and all its subdomains. A subdomain is under the umbrella of the main domain. Usually subdomains will have an address that begins with something other than 'www.' For example, www.cloudflare.com has a number of subdomains, including blog.cloudflare.com, support.cloudflare.com, and developers.cloudflare.com. Each is a subdomain under the main cloudflare.com domain.
Wildcard SSL Certificate
A single Wildcard SSL certificate can apply to all of these subdomains. Any subdomain will be listed in the SSL certificate. Users can see a list of subdomains covered by a particular certificate by clicking on the padlock in the URL bar of their browser, then clicking on "Certificate" (in Chrome) to view the certificate's details.
https://www.cloudflare.com/learning/ssl/types-of-ssl-certificates/

**NO.72** Which of the following actions would be recommended to improve an incident response process?
(A). Train the team to identify the difference between events and incidents
(B). Modify access so the IT team has full access to the compromised assets
(C). Contact the authorities if a cybercrime is suspected

(D). Restrict communication surrounding the response to the IT team

*Answer:* A

**NO.73** Which of the following is a targeted attack aimed at compromising users within a specific industry or group?

(A). Watering hole

(B). Typosquatting

(C). Hoax

(D). Impersonation

*Answer:* A

Explanation

A targeted attack refers to a type of threat in which threat actors actively pursue and compromise a target entity's infrastructure while maintaining anonymity. These attackers have a certain level of expertise and have sufficient resources to conduct their schemes over a long-term period. They can adapt, adjust, or improve their attacks to counter their victim's defenses.BackgroundTargeted attacks often employ similar methods found in traditional online threats such as malicious emails, compromised or malicious sites, exploits, and malware.

Targeted attacks differ from traditional online threats in many ways:* Targeted attacks are typically conducted as campaigns. APTs are often conducted in campaigns-a series of failed and successful attempts over time to get deeper and deeper into a target's network-and are thus not isolated incidents.* They usually target specific industries such as businesses, government agencies, or political groups. Attackers often have long-term goals in mind, with motives that include, but are not limited to, political gain, monetary profit, or business data theft.Attackers often customize, modify and improve their methods depending on the nature of their target sector and to circumvent any security measures implemented.Phases of a Targeted Attack* Intelligence gathering. Threat actors identify and gather publicly available information about their target to customize their attacks. This initial phase aims to gain strategic information not only on the intended target's IT environment but also on its organizational structure. The information gathered can range from the business applications and software an enterprise utilizes to the roles and relationships that exist within it. This phase also utilizes social engineering techniques that leverage recent events, work-related issues or concerns, and other areas of interest for the intended target.* Point of entry. Threat actors may use varied methods to infiltrate a target's infrastructure. Common methods include customized spearphishing email, zero-day or software exploits, and watering hole techniques. Attackers also utilize instant-messaging and social networking platforms to entice targets to click a link or download malware. Eventually, establishing a connection with the target is acquired.* Command-and-control (C&C) communication. After security has been breached, threat actors constantly communicate to the malware to either execute malicious routines or gather information within the company network. Threat actors use techniques to hide this communication and keep their movements under the radar.* . Once inside the network, threat actors move laterally throughout the network to seek key information or infect other valuable systems.* Asset/Data Discovery. Notable assets or data are determined and isolated for future data exfiltration. Threat actors have access to "territories" that contain valuable information and noteworthy assets. These data are then identified and transferred through tools like remote access Trojans (RATs) and customized and legitimate tools. A possible technique used in this stage may be sending back file lists in different directories so attackers can identify what are valuable.* Data Exfiltration. This is the main goal of targeted attacks. An attack's objective is to gather key information and transfer this to a location that the attackers control.

Transferring such data can be conducted quickly or gradually. Targeted attacks strive to remain undetected in the network in order to gain access to the company's crown jewels or valuable data. These valuable data include intellectual property, trade secrets, and customer information. Inaddition, threat actors may also seek other sensitive data such as top-secret documents from government or military institutions.

Once a targeted attack is successful and has reached as far as the data exfiltration stage, it is not difficult for attackers to draw out the data. Although targeted attacks are not known to specifically target consumers, their data are also at risk once target business sectors have been infiltrated. As a result, such attacks (if successful) may damage a company's reputation.

https://www.trendmicro.com/vinfo/us/security/definition/targeted-attacks#:~:text=A%20targeted%20attack%20r

**NO.74** A company is considering transitioning to the cloud. The company employs individuals from various locations around the world The company does not want to increase its on-premises infrastructure blueprint and only wants to pay for additional compute power required. Which of the following solutions would BEST meet the needs of the company?
(A). Private cloud
(B). Hybrid environment
(C). Managed security service provider
(D). Hot backup site
*Answer:* B

**NO.75** A social media company based in North Amenca is looking to expand into new global markets and needs to maintain compliance with international standards With which of the following is the company's data protection officer MOST likely concerned''
(A). NIST Framework
(B). ISO 27001
(C). GDPR
(D). PCI-DSS
*Answer:* B

**NO.76** An organization wants to implement a biometric system with the highest likelihood that an unauthorized user will be denied access. Which of the following should the organization use to compare biometric solutions?
(A). FRR
(B). Difficulty of use
(C). Cost
(D). FAR
(E). CER
*Answer:* A

**NO.77** A security engineer is building a file transfer solution to send files to a business partner. The users would like to drop off the files in a specific directory and have the server send to the business partner. The connection to the business partner is over the internet and needs to be secure. Which of the following can be used?
(A). S/MIME

(B). LDAPS
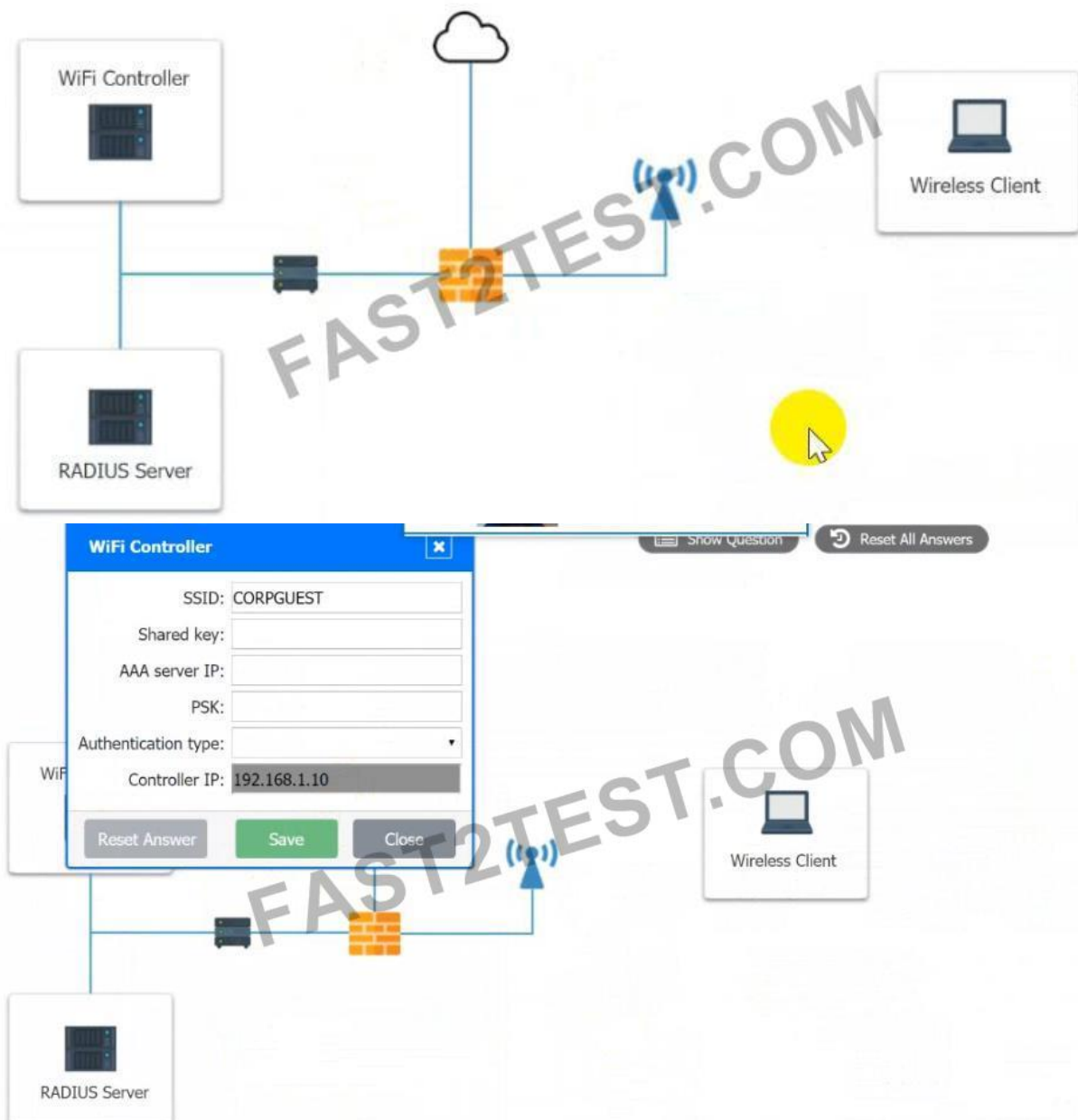(C). SSH
(D). SRTP
*Answer:* B

**NO.78** A systems administrator needs to install a new wireless network for authenticated guest access. The wireless network should support 802. IX using the most secure encryption and protocol available.
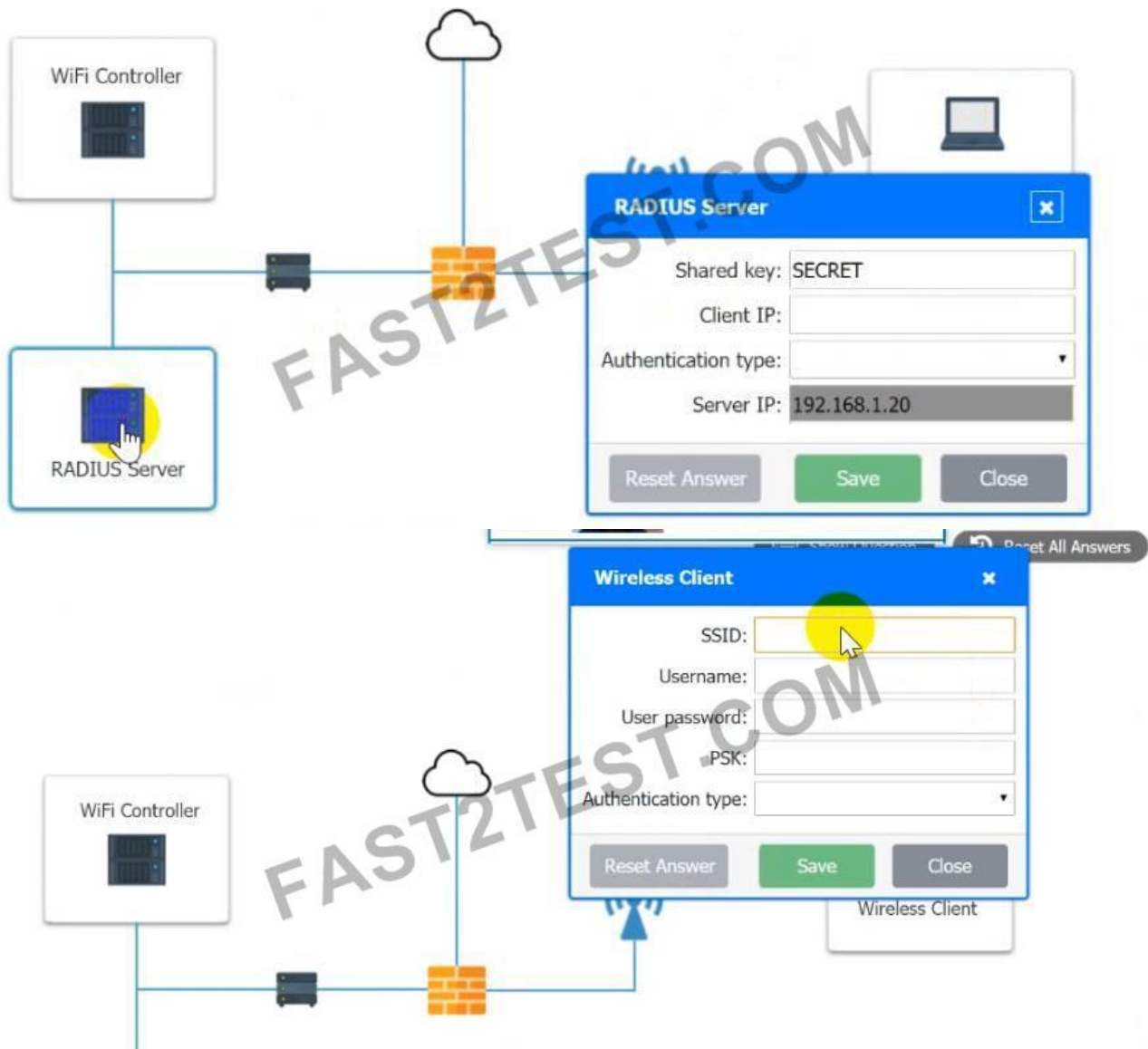
Perform the following steps:

1. Configure the RADIUS server.

2. Configure the WiFi controller.

3. Preconfigure the client for an incoming guest. The guest AD credentials are:

User: guest01

Password: guestpass

**RADIUS Server**

Shared key: SECRET

Client IP:

Authentication type:

Server IP: 192.168.1.20

Reset Answer    Save    Close

**Wireless Client**

SSID:

Username:

User password:

PSK:

Authentication type:

Reset Answer    Save    Close

Wireless Client

WiFi Controller

**Answer:**

See the answer below.

Explanation

Use the same settings as describe in below images.

Graphical user interface, application Description automatically generated

Graphical user interface, text, application Description automatically generated



**NO.79** A Chief Security Officer (CSO) is concerned that cloud-based services are not adequately protected from advanced threats and malware The CSO believes there is a high risk that a data breach could occur in the near future due to the lack of detective and preventive controls Which of the following should be implemented to BEST address the CSO's concerns? {Select TWO)

(A). AWAF
(B). ACASB
(C). An NG-SWG
(D). Segmentation
(E). Encryption
(F). Containerization

*Answer:* B,F

**NO.80** The SOC for a large MSSP is meeting to discuss the lessons learned from a recent incident that took much too long to resolve This type of incident has become more common in recent weeks and is consuming large amounts of the analysts' time due to manual tasks being performed Which of the following solutions should the SOC consider to BEST improve its response time?

(A). Configure a NIDS appliance using a Switched Port Analyzer
(B). Collect OSINT and catalog the artifacts in a central repository
(C). Implement a SOAR with customizable playbooks
(D). Install a SIEM with community-driven threat intelligence

*Answer:* C

**NO.81** Which of the following techniques eliminates the use of rainbow tables for password cracking?
(A). Hashing
(B). Tokenization
(C). Asymmetric encryption
(D). Salting
*Answer:* D
Explanation
Rainbow table attacks can easily be prevented by using salt techniques, which is a random data that is passed into the hash function along with the plain text.

**NO.82** Which of the following components can be used to consolidate and forward inbound Internet traffic to multiple cloud environments though a single firewall?
(A). Transit gateway
(B). Cloud hot site
(C). Edge computing
(D). DNS sinkhole
*Answer:* A

**NO.83** A security analyst was asked to evaluate a potential attack that occurred on a publicly accessible section of the company's website The malicious actor posted an entry in an attempt to trick users into cltckmg the following:

`https://www.c0mpt1a.com/contact-us/%3Fname%3D%2Cscript%3Ealert(document.cookie)%3C%2Fscript%3E`

Which of the following was MOST likely observed?
(A). DLL injection
(B). Session replay
(C). SOLI
(D). XSS
*Answer:* B

**NO.84** A security analyst was called to investigate a file received directly from a hardware manufacturer. The analyst is trying to determine whether odified in transit before installation on the user's computer. Which of the following can be used to safely assess the file?
(A). Check the hash of the installation file
(B). Match the file names
(C). Verify the URL download location
(D). Verify the code-signing certificate
*Answer:* A
Explanation
The hardware manufacturer will post the hash of the file publicly, and anyone who receives a copy of that file will be able to run a checksum on the file themselves, and compare them to the official manufacturer-provided checksum. Hashing is almost always the correct answer in these type of questions. You'll see a lot of Github repositories using hashed checksums as well for verification, and I recently just installed Java onto my new computer. Java provided me with a hashed checksum for the

setup executable.

**NO.85** Which of the following provides a calculated value for known vulnerabilities so organizations can prioritize mitigation steps?
(A). CVSS
(B). SIEM
(C). SOAR
(D). CVE
*Answer:* A

**NO.86** During a recent security incident at a multinational corporation a security analyst found the following logs for an account called user:

| Account | Login location | Time (UTC) | Message |
|---------|---------------|------------|---------|
| user | New York | 9:00 a.m. | Login: user, successful |
| user | Los Angeles | 9:01 a.m. | Login: user, successful |
| user | Sao Paolo | 9:05 a.m. | Login: user, successful |
| user | Munich | 9:12 a.m. | Login: user, successful |

Which Of the following account policies would BEST prevent attackers from logging in as user?
(A). Impossible travel time
(B). Geofencing
(C). Time-based logins
(D). Geolocation
*Answer:* A

**NO.87** Which of the following in the incident response process is the BEST approach to improve the speed of the identification phase?
(A). Activate verbose logging in all critical assets.
(B). Tune monitoring in order to reduce false positive rates.
(C). Redirect all events to multiple syslog servers.
(D). Increase the number of sensors present on the environment.
*Answer:* A

**NO.88** A security architect is required to deploy to conference rooms some workstations that will allow sensitive data to be displayed on large screens. Due to the nature of the data, it cannot be stored in the conference rooms. The fiieshare is located in a local data center. Which of the following should the security architect recommend to BEST meet the requirement?
(A). Fog computing and KVMs
(B). VDI and thin clients
(C). Private cloud and DLP
(D). Full drive encryption and thick clients
*Answer:* C

**NO.89** A security analyst is evaluating solutions to deploy an additional layer of protection for a web application The goal is to allow only encrypted communications without relying on network devices Which of the following can be implemented?
(A). HTTP security header
(B). DNSSEC implementation
(C). SRTP
(D). S/MIME
*Answer:* C

**NO.90** An organization is building backup server rooms in geographically diverse locations The Chief Information Security Officer implemented a requirement on the project that states the new hardware cannot be susceptible to the same vulnerabilities in the existing server room Which of the following should the systems engineer consider?
(A). Purchasing hardware from different vendors
(B). Migrating workloads to public cloud infrastructure
(C). Implementing a robust patch management solution
(D). Designing new detective security controls
*Answer:* A

**NO.91** Which of the following is assured when a user signs an email using a private key?
(A). Non-repudiation
(B). Confidentiality
(C). Availably
(D). Authentication
*Answer:* A
Explanation
Non Repudiation is your virtual John Hancock. It's a way of virtually stamping any data or document with "I am who I say I am". Only way to break this would be if the private key owners' private key became compromised. Which at that point you got bigger problems than Non Repudiation.

**NO.92** A business operations manager is concerned that a PC that is critical to business operations will have a costly hardware failure soon. The manager is looking for options to continue business operations without incurring large costs. Which of the following would mitigate the manager's concerns?
(A). Implement a full system upgrade
(B). Perform a physical-to-virtual migration
(C). Install uninterruptible power supplies
(D). Purchase cybersecurity insurance
*Answer:* B

**NO.93** During a recent penetration test, the tester discovers large amounts of data were exfiltrated over the course of
12 months via the internet. The penetration tester stops the test to inform the client of the findings Which of the following should be the client's NEXT step to mitigate the issue''
(A). Conduct a full vulnerability scan to identify possible vulnerabilities

(B). Perform containment on the critical servers and resources
(C). Review the firewall and identify the source of the active connection
(D). Disconnect the entire infrastructure from the internet
*Answer:* B

**NO.94** Which of the following tools is effective in preventing a user from accessing unauthorized removable media?
(A). USB data blocker
(B). Faraday cage
(C). Proximity reader
(D). Cable lock
*Answer:* B

**NO.95** A recent phishing campaign resulted in several compromised user accounts. The security incident response team has been tasked with reducing the manual labor of filtering through all the phishing emails as they arrive and blocking the sender's email address, along with other time-consuming mitigation actions. Which of the following can be configured to streamline those tasks?
(A). SOAR playbook
(B). MOM policy
(C). Firewall rules
(D). URL filter
(E). SIEM data collection
*Answer:* A

**NO.96** An IT manager is estimating the mobile device budget for the upcoming year Over the last five years, the number of devices that were replaced due to loss damage or theft steadily increased by 10%. Which of the following would BEST describe the estimated number of devices to be replaced next year?
(A). ALE
(B). ARO
(C). RPO
(D). SLE
*Answer:* A

**NO.97** During a recent security assessment, a vulnerability was found in a common OS, The OS vendor was unaware of the issue and promised to release a patch within next quarter, Which of the following BEST describes this type of vulnerability?
(A). Legacy operating system
(B). Weak configuration
(C). Zero day
(D). Supply chain
*Answer:* C

**NO.98** A security analyst in a SOC has been tasked with onboarding a new network into the SIEM. Which of the following BEST describes the information that should feed into a SIEM solution in order to adequately support an investigation?

(A). Logs from each device type and security layer to provide correlation of events
(B). Only firewall logs since that is where attackers will most likely try to breach the network
(C). Email and web-browsing logs because user behavior is often the cause of security breaches
(D). NetFlow because it is much more reliable to analyze than syslog and will be exportable from every device
*Answer:* B

**NO.99** Which of the following is a security best practice that ensures the integrity of aggregated log files within a SIEM?
(A). Set up hashing on the source log file servers that complies with local regulatory requirements,
(B). Back up the aggregated log files at least two times a day or as stated by local regulatory requirements.
(C). Write protect the aggregated log files and move them to an isolated server with limited access.
(D). Back up the source log files and archive them for at least six years or in accordance with local regulatory requirements.
*Answer:* A

**NO.100** A security analyst has been asked by the Chief Information Security Officer to
* develop a secure method of providing centralized management of infrastructure
* reduce the need to constantly replace aging end user machines
* provide a consistent user desktop expenence
Which of the following BEST meets these requirements?
(A). BYOD
(B). Mobile device management
(C). VDI
(D). Containers ation
*Answer:* C

**NO.101** Which of the following is an example of transference of risk?
(A). Purchasing insurance
(B). Patching vulnerable servers
(C). Retiring outdated applications
(D). Application owner risk sign-off
*Answer:* A

**NO.102** During an incident response, an analyst applied rules to all inbound traffic on the border firewall and implemented ACLs on each critical server Following an investigation, the company realizes it is still vulnerable because outbound traffic is not restricted and the adversary is able lo maintain a presence in the network. In which of the following stages of the Cyber Kill Chain is the adversary currently operating?
(A). Reconnaissance
(B). Command and control
(C). Actions on objective
(D). Exploitation
*Answer:* B

**NO.103** While preparing a software Inventory report, a security analyst discovers an unauthorized program installed on most of the company's servers. The program utilizes the same code signing certificate as an application deployed to only the accounting team. Which of the following mitigations would BEST secure the server environment?
(A). Revoke the code signing certificate used by both programs.
(B). Block all unapproved file hashes from installation.
(C). Add the accounting application file hash to the allowed list.
(D). Update the code signing certificate for the approved application.
*Answer:* C

**NO.104** A tax organization is working on a solution to validate the online submission of documents The solution should be earned on a portable USB device that should be inserted on any computer that is transmitting a transaction securely. Which of the following is the BEST certificate for these requirements?
(A). User certificate
(B). Self-signed certificate
(C). Computer certificate
(D). Root certificate
*Answer:* D

**NO.105** Which of the following documents provides guidance regarding the recommended deployment of network security systems from the manufacturer?
(A). Cloud control matrix
(B). Reference architecture
(C). NIST RMF
(D). CIS Top 20
*Answer:* C

**NO.106** A forensic analyst needs to prove that data has not been tampered with since it was collected Which of the following methods will the analyst MOST likely use?
(A). Look for tampenng on the evidence collection bag
(B). Encrypt the collected data using asymmetric encryption
(C). Ensure proper procedures for chain of custody are being followed
(D). Calculate the checksum using a hashing algorithm
*Answer:* D

**NO.107** After reluming from a conference, a user's laptop has been operating slower than normal and overheating and the fans have been running constantly Dunng the diagnosis process, an unknown piece of hardware is found connected to the laptop's motherboard Which of the following attack vectors was exploited to install the hardware?
(A). Removable media
(B). Spear phishing
(C). Supply chain
(D). Direct access
*Answer:* D

**NO.108** A company labeled some documents with the public sensitivity classification This means the documents can be accessed by:
(A). employees of other companies and the press
(B). all members of the department that created the documents
(C). only the company's employees and those listed in the document
(D). only the individuate listed in the documents
*Answer:* A

**NO.109** A large bank with two geographically dispersed data centers is concerned about major power disruptions at both locations Every day each location expences very bnef outages that last for a few seconds However dunng the summer a high risk of intentional brownouts that last up to an hour exists particularly at one of the locations near an jndustnal smelter. Which of the following is the BEST solution to reduce the risk of data loss?
(A). Dual supply
(B). Generator
(C). UPS
(D). PDU
(E). Daily backups
*Answer:* E

**NO.110** Which of the following control types fixes a previously identified issue and mitigates a risk?
(A). Detective
(B). Corrective
(C). Preventative
(D). Finalized
*Answer:* B

**NO.111** Which of the following is a benefit of including a risk management framework into an organization's security approach?
(A). It defines expected service levels from participating supply chain partners to ensure system outages are remediated in a timely manner
(B). It identifies specific vendor products that have been tested and approved for use in a secure environment.
(C). It provides legal assurances and remedies in the event a data breach occurs
(D). It incorporates control, development, policy, and management activities into IT operations.
*Answer:* C

**NO.112** Which of the following is the MOST likely reason for securing an air-gapped laboratory HVAC system?
(A). To avoid data leakage
(B). To protect surveillance logs
(C). To ensure availability
(D). To facilitate third-party access
*Answer:* A

**NO.113** Which of the following would be indicative of a hidden audio file found inside of a piece of

source code?

(A). Steganography

(B). Homomotphic encryption

(C). Cipher surte

(D). Blockchain

*Answer:* A

Explanation

Steganography is the technique of hiding secret data within an ordinary, non-secret, file or message in order to avoid detection; the secret data is then extracted at its destination. The use of steganography can be combined with encryption as an extra step for hiding or protecting data. The word steganography is derived from the Greek words steganos (meaning hidden or covered) and the Greek root graph (meaning to write).

**NO.114** Which of the following is an effective tool to stop or prevent the exfiltration of data from a network?

(A). DLP

(B). NIDS

(C). TPM

(D). FDE

*Answer:* A

**NO.115** A network engineer created two subnets that will be used for production and development servers. Per security policy, production and development servers must each have a dedicated network that cannot communicate with one another directly. Which of the following should be deployed so that server administrators can access these devices?

(A). VLANS

(B). Internet proxy servers

(C). NIDS

(D). Jump servers

*Answer:* D

**NO.116** A company recently experienced an inside attack using a corporate machine that resulted in data compromise.

Analysis indicated an unauthorized change to the software circumvented technological protection measures, The analyst was tasked with determining the best method to ensure the integrity of the systems remains intact and local and remote boot attestation can take place. Which of the following would provide the BEST solution?

(A). HIPS

(B). Fly

(C). TPM

(D). DLP

*Answer:* C

Explanation

https://docs.microsoft.com/en-us/azure/security/fundamentals/measured-boot-host-attestation

**NO.117** An attack has occurred against a company.

INSTRUCTIONS

You have been tasked to do the following:

Identify the type of attack that is occurring on the network by clicking on the attacker's tablet and reviewing the output. (Answer Area 1).

Identify which compensating controls should be implemented on the assets, in order to reduce the effectiveness of future attacks by dragging them to the correct server.

(Answer area 2) All objects will be used, but not all placeholders may be filled. Objects may only be used once.

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

**Company Site** ✕

← → ✕ http://companysetup.ex ❯ Request **Response**

**Welcome to your online games. Thanks for logging in.**

```
user,cookie-id,login-time
pete,12351235adf89866eaf,2012-03-21 15:34:34
matt,efda838a8321ff23213,2012-03-21 15:37:34
sara,123e13afd358fa7499d,2012-03-21 15:39:34
```

**Company Site** ✕

← → ✕ http://companysetup.ex ❯ **Request** Response

**Please log in to access your online games**

Login:

Password:

Submit Query

Select and Place:

## Answer Area 1

- SQL Injection
- Cross Site Scripting
- XML Injection
- Session Hijacking

Type of attack

�?
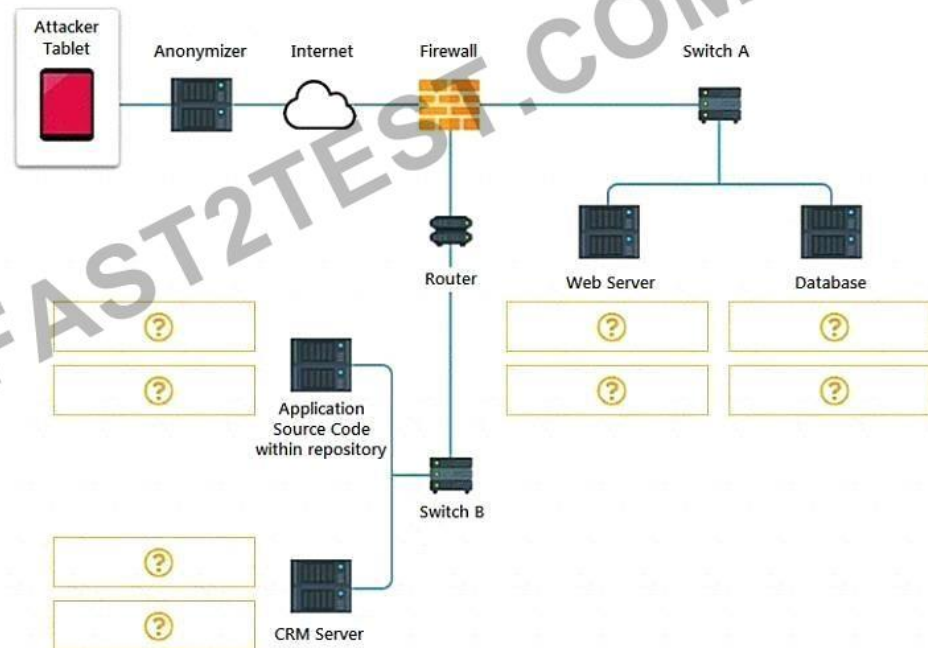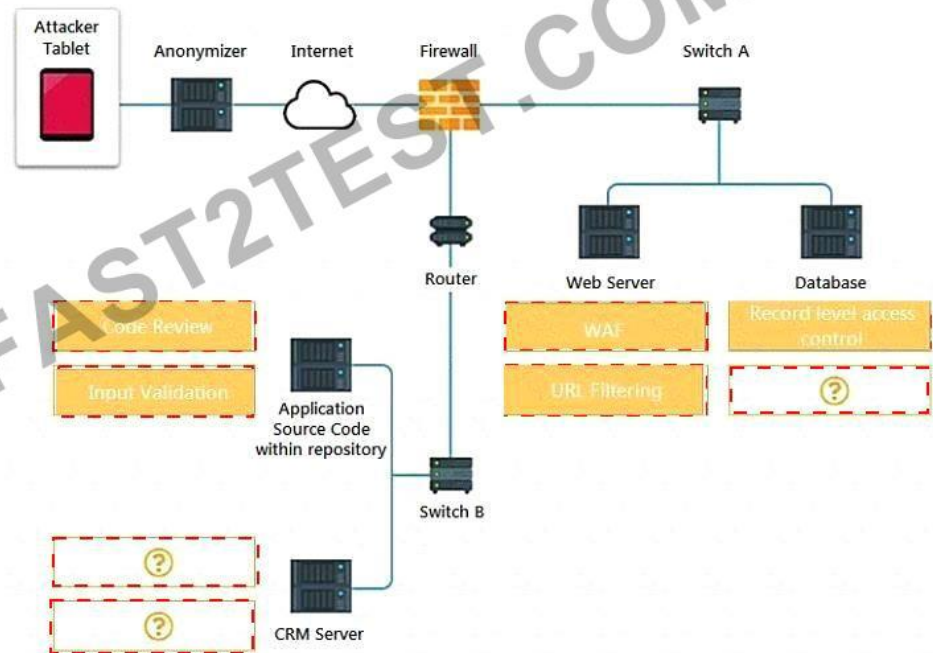
## Answer Area 2

- Input Validation
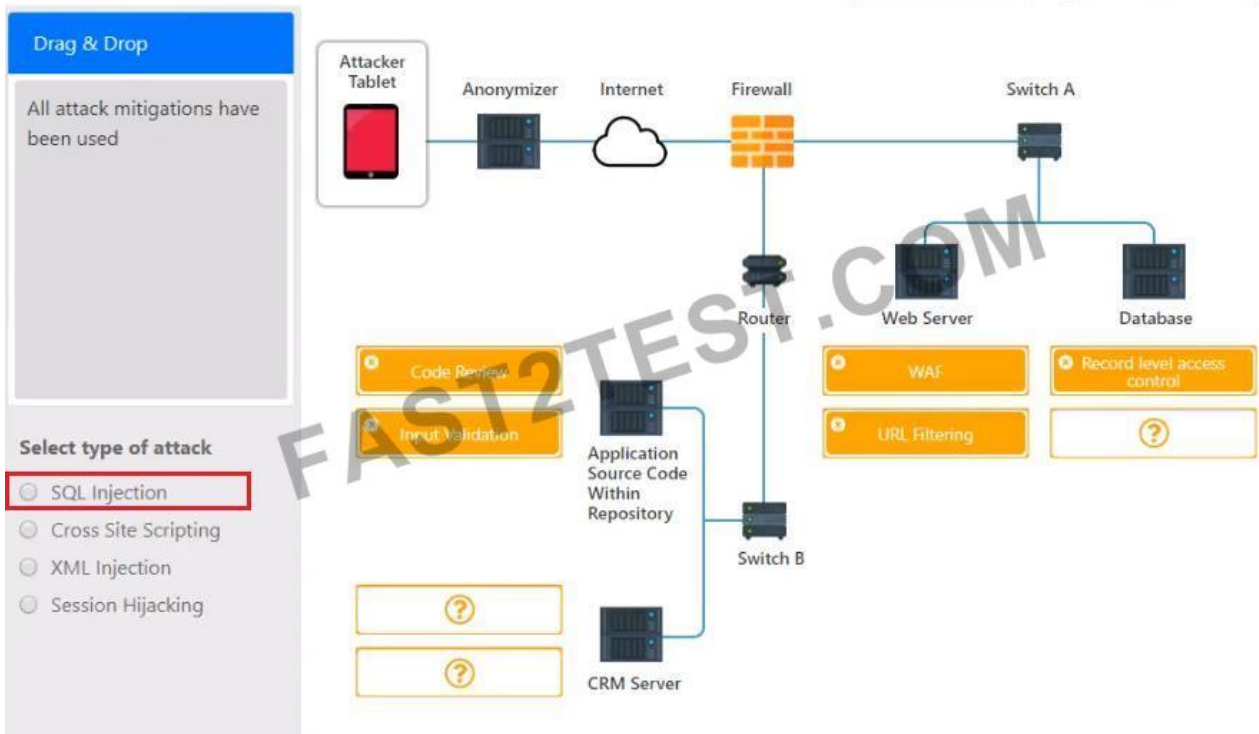- Code Review
- WAF
- URL Filtering
- Record level access control



**Answer:**

**Answer Area 1**

SQL Injection

Cross Site Scripting

XML Injection

Session Hijacking

Type of attack

SQL Injection

**Answer Area 2**

Input Validation

Code Review

WAF

URL Filtering

Record level access control



Attacker Tablet — Anonymizer — Internet — Firewall — Switch A

Router — Web Server — Database

Code Review
Input Validation
Application Source Code within repository

WAF
URL Filtering

Record level access control
?

Switch B

?
?

CRM Server

Explanation
Diagram Description automatically generated

**Network Diagram**

Show Question    Reset All Answers

Drag & Drop

All attack mitigations have been used

Select type of attack
- SQL Injection
- Cross Site Scripting
- XML Injection
- Session Hijacking



Attacker Tablet — Anonymizer — Internet — Firewall — Switch A

Router — Web Server — Database

Code Review
Input Validation
Application Source Code Within Repository

WAF
URL Filtering

Record level access control
?

Switch B

?
?

CRM Server

**NO.118** An application developer accidentally uploaded a company's code-signing certificate private key to a public web server. The company is concerned about malicious use of its certificate. Which of the following should the company do FIRST?
(A). Delete the private key from the repository.
(B). Verify the public key is not exposed as well.
(C). Update the DLP solution to check for private keys.
(D). Revoke the code-signing certificate.
*Answer:* D
Explanation
We need to revoke the code-signing certificate as this is the most secure way to ensure that the comprised key wont be used by attackers. Usually there are bots crawking all over repos searching this kind of human errors.

**NO.119** A systems analyst is responsible for generating a new digital forensics chain-of-custody form. Which of the following should the analyst include in this documentation? (Select TWO).
(A). The order of volatility
(B). A CRC32 checksum
(C). The provenance of the artifacts
(D). The vendor's name
(E). The date time
(F). A warning banner
*Answer:* A,E

**NO.120** An amusement park is implementing a btomelnc system that validates customers' fingerpnnts to ensure they are not sharing tickets The park's owner values customers above all and would prefer customers' convenience over security For this reason which of the following features should the security team prioritize FIRST?
(A). Low FAR
(B). Low efficacy
(C). Low FRR
(D). Low CER
*Answer:* C

**NO.121** A Chief Information Security Officer wants to ensure the organization is validating and checking the Integrity of zone transfers. Which of the following solutions should be implemented?
(A). DNSSEC
(B). LOAPS
(C). NGFW
(D). DLP
*Answer:* D

**NO.122** Which of the following would BEST provide a systems administrator with the ability to more efficiently identify systems and manage permissions and policies based on location, role, and service level?
(A). Standard naming conventions
(B). Domain services

(C). Baseline configurations
(D). Diagrams
**Answer:** C

**NO.123** Which of the following can work as an authentication method and as an alerting mechanism for unauthorized access attempts?
(A). Smart card
(B). push notifications
(C). Attestation service
(D). HMAC-based, one-time password
**Answer:** B

**NO.124** A recent audit cited a risk involving numerous low-criticality vulnerabilities created by a web application using a third-party library. The development staff state there are still customers using the application even though it is end of life and it would be a substantial burden to update the application for compatibility with more secure libraries. Which of the following would be the MOST prudent course of action?
(A). Accept the risk if there is a clear road map for timely decommission
(B). Deny the risk due to the end-of-life status of the application.
(C). Use containerization to segment the application from other applications to eliminate the risk
(D). Outsource the application to a third-party developer group
**Answer:** C

**NO.125** After a recent security breach, a security analyst reports that several administrative usernames and passwords are being sent via cleartext across the network to access network devices over port 23. Which of the following should be implemented so all credentials sent over the network are encrypted when remotely accessing and configuring network devices?
(A). SSH
(B). SNMPv3
(C). SFTP
(D). Telnet
(E). FTP
**Answer:** A

**NO.126** After a recent security breach a security analyst reports that several admimstratrve usemames and passwords are being sent via cieartext across the network to access network devices over prot 23 Which of the following should be implemented so all credentials sent over the network are encrypted when remotely accessing and configunng network devices?
(A). SSH
(B). SNMPv3
(C). SFTP
(D). Telnet
(E). FTP
**Answer:** A

**NO.127** Which of the following is a policy that provides a greater depth of knowldge across an

organization?
(A). Asset manahement policy
(B). Separation of duties policy
(C). Acceptable use policy
(D). Job Rotation policy
*Answer:* C

**NO.128** A routine audit of medical billing claims revealed that several claims were submitted without the subscriber's knowledge. A review of the audit logs for the medical billing company's system indicated a company employee downloaded customer records and adjusted the direct deposit information to a personal bank account. Which of the following does this action describe?
(A). Insider threat
(B). Social engineering
(C). Third-party risk
(D). Data breach
*Answer:* A

**NO.129** An attacker replaces a digitally signed document with another version that foes unnoticed. Upon reviewing the document's contents, the author notices some additional verbaige that was not originally in the document but can't validate an integrity issue. Which of the following attacks was used?
(A). Cryptomalware
(B). Prepending
(C). Collision
(D). Phising
*Answer:* C

**NO.130** While reviewing an alert that shows a malicious request on one web application, a cybersecurity analyst is alerted to a subsequent token reuse moments later on a different service using the same single sign-on method.
Which of the following would BEST detect a malicious actor?
(A). Utilizing SIEM correlation engines
(B). Deploying Netflow at the network border
(C). Disabling session tokens for all sites
(D). Deploying a WAF for the web server
*Answer:* A
Explanation
The initial compromise was a malicious request on a web server. Moments later the token created with SSO was used on another service, the question does not specify what type of service. Deploying a WAF on the web server will detect the attacker but only on that server. If the attacker issues the same malicious request to get another SSO token correlating that event with using that SSO token in other services would allows to detect the malicious activity.

**NO.131** A user is attempting to navigate to a website from inside the company network using a desktop. When the user types in the URL. https://www.site.com, the user is presented with a certificate mismatch warning from the browser. The user does not receive a warning when visiting

http://www.anothersite.com. Which of the following describes this attack?
(A). On-path
(B). Domain hijacking
(C). DNS poisoning
(D). Evil twin

*Answer:* C

**NO.132** Data exftitration analysis indicates that an attacker managed to download system configuration notes from a web server. The web-server logs have been deleted, but analysts have determined that the system configuration notes were stored in the database administrator's folder on the web server Which of the following attacks explains what occurred? (Select TWO)
(A). Pass-the- hash
(B). Directory traversal
(C). SQL injection
(D). Privilege escalation
(E). Cross-site scnpting
(F). Request forgery

*Answer:* A,D

**NO.133** A security analyst has identified malware spreading through the corporate network and has activated the CSIRT Which of the following should the analyst do NEXT?
(A). Review how the malware was introduced to the network.
(B). Attempt to quarantine all infected hosts to limit further spread.
(C). Create help desk tickets to get infected systems reimaged.
(D). Update all endpoint antivirus solutions with the latest updates.

*Answer:* B

**NO.134** Several universities are participating m a collaborative research project and need to share compute and storage resources Which of the following cloud deployment strategies would BEST meet this need?
(A). Community
(B). Private
(C). Public
(D). Hybrid

*Answer:* A
Explanation
Community cloud storage is a variation of the private cloud storage model, which offers cloud solutions for specific businesses or communities. In this model, cloud storage providers offer their cloud architecture, software and other development tools to meet the requirements of the community. A community cloud in computing is a collaborative effort in which infrastructure is shared between several organizations from a specific community with common concerns (security, compliance, jurisdiction, etc.), whether managed internally or by a third-party and hosted internally or externally.

**NO.135** Which of the following statements BEST describes zero-day exploits'?
(A). When a zero-day exploit is discovered, the system cannot be protected by any means

(B). Zero-day exploits have their own scoring category in CVSS
(C). A zero-day exploit is initially undetectable and no patch for it exists
(D). Discovering zero-day exploits is always performed via bug bounty programs
*Answer:* C

**NO.136** Users are presented with a banner upon each login to a workstation. The banner mentions that users are not entitled to any reasonable expectation of privacy and access is for authorized personnel only.
In order to proceed past that banner. users must click the OK button. Which of the following is this an example of?
(A). AUP
(B). NDA
(C). SLA
(D). MOU
*Answer:* A

**NO.137** The new Chief Information Security Officer at a company has asked the security team to implement stronger user account policies. The new policies require:
* Users to choose a password unique to their last ten passwords
* Users to not log in from certain high-risk countries
Which of the following should the security team implement? (Select TWO).
(A). Password complexity
(B). Password history
(C). Geolocation
(D). Geofencing
(E). Geotagging
(F). Password reuse
*Answer:* A,B

**NO.138** The Chief Information Security Officer (CISO) has requested that a third-party vendor provide supporting documents that show proper controls are in place to protect customer data. Which of the following would be BEST for the third-party vendor to provide to the CISO?
(A). GDPR compliance attestation
(B). Cloud Security Alliance materials
(C). SOC 2 Type 2 report
(D). NIST RMF workbooks
*Answer:* C
Explanation
https://www.itgovernance.co.uk/soc-reporting

**NO.139** The Chief Information Secunty Officer (CISO) requested a report on potential areas of improvement following a security incident. Which of the following incident response processes is the CISO requesting?
(A). Lessons learned
(B). Preparation
(C). Detection

(D). Containment
(E). Root cause analysis
*Answer:* A

**NO.140** An organization is planning lo open other data centers to sustain operations in the event of a natural disaster.
Which of the following considerations would BEST support the organization's resiliency?
(A). Geographic dispersal
(B). Generator power
(C). Fire suppression
(D). Facility automation
*Answer:* A

**NO.141** A help desk technician receives a phone call from someone claiming to be a part of the organization's cybersecurity modem response team The caller asks the technician to verify the network's internal firewall IP address Which of the following 15 the technician's BEST course of action?
(A). Direct the caller to stop by the help desk in person and hang up declining any further requests from the caller
(B). Ask for the callers name, verify the persons identity in the email directory and provide the requested information over the phone
(C). Write down the phone number of the carter if possible, the name of the person requesting the information hang up. and notify the organization's cybersecurity officer
(D). Request the caller send an email for identity verification and provide the requested information via email to the caller
*Answer:* C

**NO.142** A company is receiving emails with links to phishing sites that look very similar to the company's own website address and content. Which of the following is the BEST way for the company to mitigate this attack?
(A). Create a honeynet to trap attackers who access the VPN with credentials obtained by phishing.
(B). Generate a list of domains similar to the company's own and implement a DNS sinkhole for each.
(C). Disable POP and IMAP on all Internet-facing email servers and implement SMTPS.
(D). Use an automated tool to flood the phishing websites with fake usernames and passwords.
*Answer:* B

**NO.143** A recent security breach exploited software vulnerabilities in the firewall and within the network management solution. Which of the following will MOST likely be used to identify when the breach occurred through each device?
(A). SIEM correlation dashboards
(B). Firewall syslog event logs
(C). Network management solution login audit logs
(D). Bandwidth monitors and interface sensors
*Answer:* A

**NO.144** A penetration tester is fuzzing an application to identify where the EIP of the stack is located

on memory.

Which of the following attacks is the penetration tester planning to execute?

(A). Race-condition

(B). Pass-the-hash

(C). Buffer overflow

(D). XSS

*Answer:* C

**NO.145** The Chief information Security Officer wants to prevent exfilitration of sensitive information from employee cell phones when using public USB power charging stations. Which of the following would be the Best solution to implement?

(A). DLP

(B). USB data blocker

(C). USB OTG

(D). Disabling USB ports

*Answer:* C

**NO.146** A business operations manager is concerned that a PC that is critical to business operations will have a costly hardware failure soon. The manager is looking for options to continue business operations without incurring large costs. Which of the following would mitigate the manager's concerns?

(A). Implement a full system upgrade

(B). Install uninterruptible power supplies

(C). Perform a physical-to-virtual migration

(D). Purchase cybersecurity insurance

*Answer:* C

**NO.147** A security analyst has been tasked with finding the maximum amount of data loss that can occur before ongoing business operations would be impacted. Which of the following terms BEST defines this metric?

(A). MTTR

(B). RTO

(C). RPO

(D). MTBF

*Answer:* A

**NO.148** A report delivered to the Chief Information Security Officer (CISO) shows that some user credentials could be exfilltrated. The report also indicates that users tend to choose the same credentials on different systems and applications. Which of the following policies should the CISO use to prevent someone from using the exfilltrated credentials?

(A). MFA

(B). Lockout

(C). Time-based logins

(D). Password history

*Answer:* B

**NO.149** An organization has hired a ted team to simulate attacks on its security posture Which of the following will the blue team do after detecting an IoC?

(A). Reimage the impacted workstations

(B). Activate runbooks for incident response

(C). Conduct forensics on the compromised system

(D). Conduct passive reconnaissance to gather information

*Answer:* B

**NO.150** Which of the following is the MOST relevant security check to be performed before embedding third-parry libraries in developed code?

(A). Check to see if the third party has resources to create dedicated development and staging environments.

(B). Verify the number of companies that downloaded the third-party code and the number of contributions on the code repository.

(C). Assess existing vulnerabilities affecting the third-parry code and the remediation efficiency of the libraries' developers.

(D). Read multiple penetration-testing reports for environments running software that reused the library.

*Answer:* C

**NO.151** A research company discovered that an unauthorized piece of software has been detected on a small number of machines in its lab. The researchers collaborate with other machines using port 445 and on the Internet using port 443. The unauthorized software is starting to be seen on additional machines outside of the lab and is making outbound communications using HTTPS and SMB. The security team has been instructed to resolve the problem as quickly as possible causing minimal disruption to the researchers. Which of the following contains the BEST course of action in this scenario?

(A). Update the host firewalls to block outbound SMB.

(B). Place the machines with the unapproved software in containment.

(C). Place the unauthorized application in a blocklist.

(D). Implement a content filter to block the unauthorized software communication.

*Answer:* B

**NO.152** A security analyst is evaluating solutions to deploy an additional layer of protection for a web application The goal is to allow only encrypted communications without relying on network devices Which of the following can be implemented?

(A). SRTP

(B). S/MIME

(C). HTTP security header

(D). DNSSEC implementation

*Answer:* A

**NO.153** A security analyst is evaluating the risks of authorizing multiple security solutions to collect data from the company's cloud environment Which of the following is an immediate consequence of these integrations?

(A). Non-compliance with data sovereignty rules

(B). Loss of the vendor's interoperability support

(C). Mandatory deployment of a SIEM solution
(D). Increase in the attack surface
*Answer:* C

**NO.154** Which of the following are the BEST ways to implement remote home access to a company's intranet systems if establishing an always-on VPN is not an option? (Select Two)
(A). Install VPN concentrations at home offices
(B). Create NAT on the firewall for intranet systems
(C). Establish SSH access to a jump server
(D). Implement a SSO solution
(E). Enable MFA for intranet systems
(F). Configure SNMPv3 server and clients.
*Answer:* A,E

**NO.155** DDoS attacks are causing an overload on the cluster of cloud servers. A security architect is researching alternatives to make the cloud environment respond to load fluctuation in a cost-effective way. Which of the following options BEST fulfils the architect's requirements?
(A). An orchestration solution that can adjust scalability of cloud assets
(B). Use of multipath by adding more connections to cloud storage
(C). Cloud assets replicated on geographically distributed regions
(D). An on-site backup that is deployed and only used when the load increases
*Answer:* A
Explanation
Scaling cloud infrastructures can experience lag during the periods of high activity, where other assets have to either be added, or become active. This is the compromise for a cost-effective solution that scales. The company could go for a system that is absolutely overkill on assets at all times, in preparation for those brief peak moments. But this is expensive, and unlikely to be taken by most companies. Only case you would want to use one of these is if you have a sensitive or critical service that MUST remain online. Stock exchange servers, military servers, bank servers, etc. come to mind for this criteria.

**NO.156** Which of the following can be used by a monitoring tool to compare values and detect password leaks without providing the actual credentials?
(A). Hashing
(B). Tokenization
(C). Masking
(D). Encryption
*Answer:* A
Explanation
https://resources.infosecinstitute.com/topic/10-popular-password-cracking-tools/

**NO.157** A cyber-security administrator is using an enterprise firewall. The administrator created some rules, but now Seems to be unresponsive. All connections being dropped by the firewall. Which of the following would be the BEST option to remove the rules?
(A). # iptables -t mangle -x
(B). # iptables -f

(C). # iptables -z
(D). # iptables -p input -j drop
*Answer:* A

**NO.158** Due to unexpected circumstances, an IT company must vacate its main office, forcing all operations to alternate, off-site locations. Which of the following will the company MOST likely reference for guidance during this change?
(A). The business continuity plan
(B). The retention policy
(C). The disaster recovery plan
(D). The incident response plan
*Answer:* A
Explanation
BCP is to empower an organization to keep crucial functions running during downtime. This, in turn, helps the organization respond quickly to an interruption, while creating resilient operational protocols.

**NO.159** A security analyst receives an alert from trie company's SIEM that anomalous activity is coming from a local source IP address of 192.168.34.26. The Chief Information Security Officer asks the analyst to block the originating source Several days later, another employee opens an internal ticket stating that vulnerability scans are no longer being performed properly. The IP address the employee provides is 192 168.3426. Which of the following describes this type of alert?
(A). True positive
(B). True negative
(C). False positive
(D). False negative
*Answer:* C

**NO.160** Which of the following control types is focused primarily on reducing risk before an incident occurs?
(A). Preventive
(B). Deterrent
(C). Corrective
(D). Detective
*Answer:* D

**NO.161** Security analysts notice a server login from a user who has been on vacation for two weeks The analysts confirm that the user did not log in to the system while on vacation After reviewing packet capture logs, the analysts notice the following:

```
username: ....smithJA.T.COM
Password: 844d3697d8880ed401b5ba2c77811
```

Which of the following occurred?
(A). A buffer overflow was exploited to gain unauthorized access
(B). The user's account was compromised, and an attacker changed the login credentials
(C). An attacker used a pass-the-hash attack to gain access
(D). An insider threat with username smithJA logged in to the account

*Answer:* B

**NO.162** A news article states hackers have been selling access to IoT camera feeds. Which of the following is the Most likely reason for this issue?
(A). Outdated software
(B). Weak credentials
(C). Lack of encryption
(D). Backdoors
*Answer:* C

**NO.163** The Chief Compliance Officer from a bank has approved a background check policy for all new hires Which of the following is the policy MOST likely protecting against?
(A). Preventing any current employees' siblings from working at the bank to prevent nepotism
(B). Hiring an employee who has been convicted of theft to adhere to industry compliance
(C). Filtenng applicants who have added false information to resumes so they appear better qualified
(D). Ensuring no new hires have worked at other banks that may be trying to steal customer information
*Answer:* B

**NO.164** A cloud service provider has created an environment where customers can connect existing local networks to the cloud for additional computing resources and block internal HR applications from reaching the cloud.
Which of the following cloud models is being used?
(A). Public
(B). Community
(C). Hybrid
(D). Private
*Answer:* C

**NO.165** A user enters a username and a password at the login screen for a web portal. A few seconds later the following message appears on the screen: Please use a combination of numbers, special characters, and letters in the password field. Which of the following concepts does this message describe?
(A). Password complexity
(B). Password reuse
(C). Password history
(D). Password age
*Answer:* A

**NO.166** A security analyst is receiving several alerts per user and is trying to determine If various logins are malicious.
The security analyst would like to create a baseline of normal operations and reduce noise. Which of the following actions should the security analyst perform?
(A). Adjust the data flow from authentication sources to the SIEM.
(B). Disable email alerting and review the SIEM directly.
(C). Adjust the sensitivity levels of the SIEM correlation engine.

(D). Utilize behavioral analysis to enable the SIEM's learning mode.
*Answer:* D

**NO.167** Which of the following would detect intrusions at the perimeter of an airport?
(A). Signage
(B). Fencing
(C). Motion sensors
(D). Lighting
(E). Bollards
*Answer:* C

**NO.168** Which of the following terms describes a broad range of information that is sensitive to a specific organization?
(A). Public
(B). Top secret
(C). Proprietary
(D). Open-source
*Answer:* C

**NO.169** A security policy states that common words should not be used as passwords. A security auditor was able to perform a dictionary attack against corporate credentials Which of the following controls was being violated?
(A). Password complexity
(B). Password history
(C). Password reuse
(D). Password length
*Answer:* B

**NO.170** During an incident response process involving a laptop, a host was identified as the entry point for malware.
The management team would like to have the laptop restored and given back to the user. The cybersecurity analyst would like to continue investigating the intrusion on the host. Which of the following would allow the analyst to continue the investigation and also return the laptop to the user as soon as possible?
(A). dd
(B). memdump
(C). tcpdump
(D). head
*Answer:* A

**NO.171** Two organizations plan to collaborate on the evaluation of new SIEM solutions for their respective companies.
A combined effort from both organizations' SOC teams would speed up the effort. Which of the following can be written to document this agreement?
(A). MOU
(B). ISA

(C). SLA
(D). NDA
***Answer:*** A
Explanation
A document that regulates security-relevant aspects of an intended connection between an agency and an external system. It regulates the security interface between any two systems operating under two different distinct authorities. It includes a variety of descriptive, technical, procedural, and planning information. It is usually preceded by a formal MOA/MOU that defines high- level roles and responsibilities in management of a cross-domain connection.
https://csrc.nist.gov/glossary/term/interconnection_security_agreement

**NO.172** A security proposal was set up to track requests for remote access by creating a baseline of the users' common sign-in properties. When a baseline deviation is detected, an lv1FA challenge will be triggered. Which of the following should be configured in order to deploy the proposal?
(A). Context-aware authentication
(B). Simultaneous authentication of equals
(C). Extensive authentication protocol
(D). Agentless network access control
***Answer:*** A
Explanation
An access control scheme that verifies an object's identity based on various environmental factors, like time, location, and behavior.

**NO.173** A security analyst is reviewing application logs to determine the source of a breach and locates the following log:

```
https://www.comptia.com/login.php?id='%20or%20'1'1='1
```

Which Of the following has been observed?
(A). DLL Injection
(B). API attack
(C). SQLI
(D). XSS
***Answer:*** C

**NO.174** Which of the following control Types would be BEST to use in an accounting department to reduce losses from fraudulent transactions?
(A). Recovery
(B). Deterrent
(C). Corrective
(D). Detective
***Answer:*** D

**NO.175** After gaining access to a dual-homed (i.e.. wired and wireless) multifunction device by exploiting a vulnerability in the device's firmware, a penetration tester then gains shell access on another networked asset This technique is an example of:
(A). privilege escalation

(B). footprinting
(C). persistence
(D). pivoting.
*Answer:* A

**NO.176** A security engineer is concerned about using an agent on devices that relies completely on defined known-bad signatures. The security engineer wants to implement a tool with multiple components including the ability to track, analyze, and monitor devices without reliance on definitions alone. Which of the following solutions BEST fits this use case?
(A). EDR
(B). DLP
(C). NGFW
(D). HIPS
*Answer:* A
Explanation
The acronym EDR stands for Endpoint Detection and Response and is also known as EDTR. It is an endpoint security solution that is responsible for continuous monitoring of endpoints. This permanent monitoring enables the technology to detect and respond to cyber threats such as malware or ransomware at an early stage.
The basis for this is always the analysis of context-related information, which can be used to make corrective proposals for recovery.

**NO.177** An engineer wants to inspect traffic to a cluster of web servers in a cloud environment. Which of the following solutions should the engineer implement?
(A). Proxy server
(B). WAF
(C). Load balancer
(D). VPN
*Answer:* B

**NO.178** A company recently experienced a significant data loss when proprietary Information was leaked to a competitor. The company took special precautions by using proper labels; however, email filter logs do not have any record of the incident. An Investigation confirmed the corporate network was not breached, but documents were downloaded from an employee's COPE tablet and passed to the competitor via cloud storage.
Which of the following is the BEST remediation for this data leak?
(A). User training
(B). CASB
(C). MDM
(D). DLP
*Answer:* D

**NO.179** A security forensics analyst is examining a virtual server. The analyst wants to preserve the present state of the virtual server, including memory contents Which of the following backup types should be used?
(A). Snapshot

(B). Differential
(C). Cloud
(D). Full
(E). Incremental
*Answer:* A

**NO.180** An organization has activated an incident response plan due to a malware outbreak on its network The organization has brought in a forensics team that has identified an internet-facing Windows server as the likely point of initial compromise The malware family that was detected is known to be distributed by manually logging on to servers and running the malicious code Which of the following actions would be BEST to prevent reinfection from the initial infection vector?
(A). Prevent connections over TFTP from the internal network
(B). Create a firewall rule that blocks port 22 from the internet to the server
(C). Disable file shanng over port 445 to the server
(D). Block port 3389 inbound from untrusted networks
*Answer:* A

**NO.181** Which of the following documents provides expectations at a technical level for quality, availability, and responsibilities?
(A). EOL
(B). SLA
(C). MOU
(D). EOSL
*Answer:* B

**NO.182** Server administrator want to configure a cloud solution so that computing memory and processor usage is maximized most efficiently acress a number of virtual servers. They also need to avoid potential denial-of-service situations caused by availiability. Which of the following should administrator configure to maximize system availability while efficiently utilizing available computing power?
(A). Dynamic resource allocation
(B). High availability
(C). Segmentation
(D). Container security
*Answer:* C

**NO.183** During a security incident investigation, an analyst consults the company's SIEM and sees an event concerning high traffic to a known, malicious command-and-control server. The analyst would like to determine the number of company workstations that may be impacted by this issue. Which of the following can provide the information?
(A). WAF logs
(B). DNS logs
(C). System logs
(D). Application logs
*Answer:* B

**NO.184** Which of the following is a known security nsk associated with data archives that contain financial information?
(A). Data can become a liability if archived longer than required by regulatory guidance
(B). Data must be archived off-site to avoid breaches and meet business requirements
(C). Companies are prohibited from providing archived data to e-discovery requests
(D). Unencrypted archives should be preserved as long as possible and encrypted
*Answer:* A

**NO.185** Which of the following should be monitored by threat intelligence researchers who search for leaked credentials?
(A). Common Weakness Enumeration
(B). OSINT
(C). Dark web
(D). Vulnerability databases
*Answer:* C

**NO.186** A software company adopted the following processes before releasing software to production;
* Peer review
* Static code scanning
* Signing
A considerable number of vulnerabilities are still being detected when code is executed on production Which of the following security tools can improve vulnerability detection on this environment?
(A). File integrity monitonng for the source code
(B). Dynamic code analysis tool
(C). Encrypted code repository
(D). Endpoint detection and response solution
*Answer:* A

**NO.187** The Chief Information Security Officer wants to prevent exfiltration of sensitive information from employee cell phones when using public USB power charging stations. Which of the following would be the BEST solution to Implement?
(A). DLP
(B). USB data blocker
(C). USB OTG
(D). Disabling USB ports
*Answer:* A
Explanation
USB data blockers are good, but they're reliant on the employee actually using them. A DLP solution such as MobileIron forces compliance, by locking corporate resources behind a secure application. For example: Users any mobile device policy, such as BYOD, CYOD, and COPE. If they want to access their corporate email on their phone. They will need to sign into the MobileIron application, in order to be granted visibility to their corporate email account. Since the emails are being read/sent through the MobileIron application. Safeguards can be applied even on an outside network-mobile level. If an employee attempts to send a customers social security number, the MobileIron will either block it,

alert it, or both, contingent on how the company setup the MobileIron service to work.

**NO.188** A SOC operator is receiving continuous alerts from multiple Linux systems indicating that unsuccessful SSH attempts to a functional user ID have been attempted on each one of them in a short period of time. Which of the following BEST explains this behavior?
(A). Rainbow table attack
(B). Password spraying
(C). Logic bomb
(D). Malware bot
*Answer:* B
Explanation
Password Spraying is a variant of what is known as a brute force attack. In a traditional brute force attack, the perpetrator attempts to gain unauthorized access to a single account by guessing the password "repeatedly" in a very short period of time.

**NO.189** Which of the following should an organization consider implementing In the event executives need to speak to the media after a publicized data breach?
(A). Incident response plan
(B). Business continuity plan
(C). Communication plan
(D). Disaster recovery plan
*Answer:* D

**NO.190** A company is auditing the manner in which its European customers' personal information is handled Which of the following should the company consult?
(A). GDPR
(B). ISO
(C). NIST
(D). PCI DSS
*Answer:* A

**NO.191** Which of the following is the FIRST environment in which proper, secure coding should be practiced?
(A). Stage
(B). Development
(C). Production
(D). Test
*Answer:* D

**NO.192** Several users have opened tickets with the help desk. The help desk has reassigned the tickets to a secunty analyst for further review The security analyst reviews the following metrics:

| Hostname | Normal CPU utilization % | Current CPU utilization % | Normal network connections | Current network connections |
|----------|--------------------------|---------------------------|----------------------------|------------------------------|
| Accounting-PC | 22% | 48% | 12 | 66 |
| HR-PC | 35% | 55% | 15 | 57 |
| IT-PC | 78% | 98% | 25 | 92 |
| Sales-PC | 28% | 50% | 20 | 56 |
| Manager-PC | 21% | 44% | 18 | 49 |

Which of the following is MOST likely the result of the security analyst's review?
(A). The ISP is dropping outbound connections
(B). The user of the Sales-PC fell for a phishing attack
(C). Corporate PCs have been turned into a botnet
(D). An on-path attack is taking place between PCs and the router
*Answer:* D

**NO.193** A company has a flat network in the cloud. The company needs to implement a solution to segment its production and non-production servers without migrating servers to a new network. Which of the following solutions should the company implement?
(A). internet
(B). Screened Subnet
(C). VLAN segmentation
(D). Zero Trust
*Answer:* C

**NO.194** A junior security analyst iss conducting an analysis after passwords were changed on multiple accounts without users' interaction. The SIEM have multiple logtn entnes with the following text:

```
suspicious event - user: scheduledtasks successfully authenticate on AD on abnormal time

suspicious event - user: scheduledtasks failed to execute c:\weekly_checkups\amazing-3rdparty-domain-assessment.py

suspicious event - user: scheduledtasks failed to execute c:\weekly_checkups\secureyourAD-3rdparty-compliance.sh

suspicious event - user: scheduledtasks successfully executed c:\weekly_checkups\amazing-3rdparty-domain-assessment.py
```

Which of Ihe following is the MOST likely attack conducted on the environment?
(A). Malicious script
(B). Privilege escalation
(C). Doman hijacking
(D). DNS poisoning
*Answer:* A

**NO.195** Which of the following BEST describes when an organization utilizes a ready-to-use application from a cloud provider?
(A). IaaS
(B). SaaS
(C). Paas
(D). XaaS
*Answer:* B
Explanation
* SaaS, or software as a service, is on-demand access to ready-to-use, cloud-hosted application software.

https://www.ibm.com/cloud/learn/iaas-paas-saas

**NO.196** A company recently added a DR site and is redesigning the network. Users at the DR site are having issues browsing websites.
INSTRUCTIONS
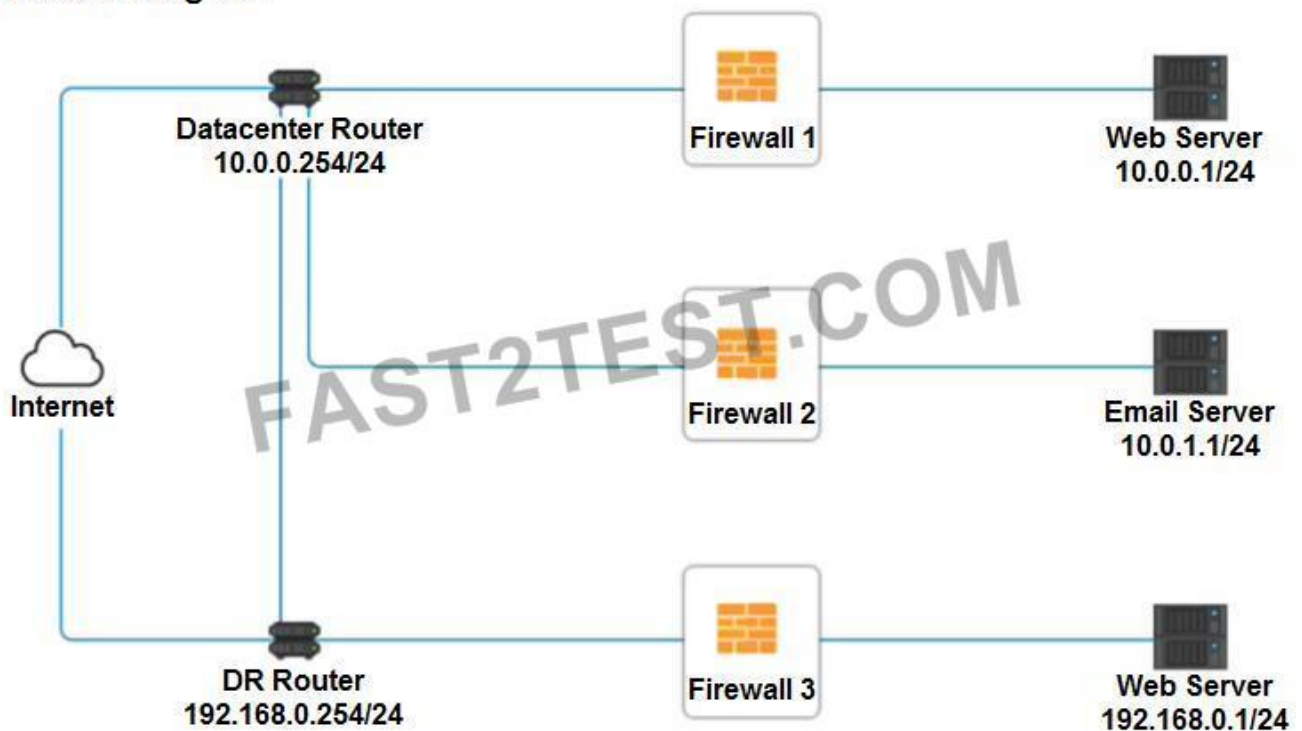Click on each firewall to do the following:
* Deny cleartext web traffic.
* Ensure secure management protocols are used. Please Resolve issues at the DR site.
The ruleset order cannot be modified due to outside constraints.
If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.

### Network Diagram

## Firewall 2

| Rule Name | Source | Destination | Service | Action |
|-----------|--------|-------------|---------|--------|
| DNS Rule | ▼<br>ANY<br>10.0.0.1/24<br>10.0.1.1/24<br>192.168.0.1/24 | ▼<br>ANY<br>10.0.0.1/24<br>10.0.1.1/24<br>192.168.0.1/24 | ▼<br>ANY<br>DNS<br>HTTP<br>HTTPS<br>TELNET<br>SSH | ▼<br>PERMIT<br>DENY |
| HTTPS Outbound | ▼<br>ANY<br>10.0.0.1/24<br>10.0.1.1/24<br>192.168.0.1/24 | ▼<br>ANY<br>10.0.0.1/24<br>10.0.1.1/24<br>192.168.0.1/24 | ▼<br>ANY<br>DNS<br>HTTP<br>HTTPS<br>TELNET<br>SSH | ▼<br>PERMIT<br>DENY |
| Management | ▼<br>ANY<br>10.0.0.1/24<br>10.0.1.1/24<br>192.168.0.1/24 | ▼<br>ANY<br>10.0.0.1/24<br>10.0.1.1/24<br>192.168.0.1/24 | ▼<br>ANY<br>DNS<br>HTTP<br>HTTPS<br>TELNET<br>SSH | ▼<br>PERMIT<br>DENY |
| HTTPS Inbound | ▼<br>ANY<br>10.0.0.1/24<br>10.0.1.1/24<br>192.168.0.1/24 | ▼<br>ANY<br>10.0.0.1/24<br>10.0.1.1/24<br>192.168.0.1/24 | ▼<br>ANY<br>DNS<br>HTTP<br>HTTPS<br>TELNET<br>SSH | ▼<br>PERMIT<br>DENY |
| HTTP Inbound | ▼<br>ANY<br>10.0.0.1/24<br>10.0.1.1/24<br>192.168.0.1/24 | ▼<br>ANY<br>10.0.0.1/24<br>10.0.1.1/24<br>192.168.0.1/24 | ▼<br>ANY<br>DNS<br>HTTP<br>HTTPS<br>TELNET<br>SSH | ▼<br>PERMIT<br>DENY |

Reset Answer          Save          Close

## Firewall 3 ✕

| Rule Name | Source | Destination | Service | Action |
|---|---|---|---|---|
| DNS Rule | ▼<br>ANY<br>10.0.0.1/24<br>10.0.1.1/24<br>192.168.0.1/24 | ▼<br>ANY<br>10.0.0.1/24<br>10.0.1.1/24<br>192.168.0.1/24 | ▼<br>ANY<br>DNS<br>HTTP<br>HTTPS<br>TELNET<br>SSH | ▼<br>PERMIT<br>DENY |
| HTTPS Outbound | ▼<br>ANY<br>10.0.0.1/24<br>10.0.1.1/24<br>192.168.0.1/24 | ▼<br>ANY<br>10.0.0.1/24<br>10.0.1.1/24<br>192.168.0.1/24 | ▼<br>ANY<br>DNS<br>HTTP<br>HTTPS<br>TELNET<br>SSH | ▼<br>PERMIT<br>DENY |
| Management | ▼<br>ANY<br>10.0.0.1/24<br>10.0.1.1/24<br>192.168.0.1/24 | ▼<br>ANY<br>10.0.0.1/24<br>10.0.1.1/24<br>192.168.0.1/24 | ▼<br>ANY<br>DNS<br>HTTP<br>HTTPS<br>TELNET<br>SSH | ▼<br>PERMIT<br>DENY |
| HTTPS Inbound | ▼<br>ANY<br>10.0.0.1/24<br>10.0.1.1/24<br>192.168.0.1/24 | ▼<br>ANY<br>10.0.0.1/24<br>10.0.1.1/24<br>192.168.0.1/24 | ▼<br>ANY<br>DNS<br>HTTP<br>HTTPS<br>TELNET<br>SSH | ▼<br>PERMIT<br>DENY |
| HTTP Inbound | ▼<br>ANY<br>10.0.0.1/24<br>10.0.1.1/24<br>192.168.0.1/24 | ▼<br>ANY<br>10.0.0.1/24<br>10.0.1.1/24<br>192.168.0.1/24 | ▼<br>ANY<br>DNS<br>HTTP<br>HTTPS<br>TELNET<br>SSH | ▼<br>PERMIT<br>DENY |

Reset Answer | Save | Close

*Answer:*
See explanation below.
Explanation

Firewall 1:
DNS Rule - ANY --> ANY --> DNS --> PERMIT
HTTPS Outbound - 10.0.0.1/24 --> ANY --> HTTPS --> PERMIT
Management - ANY --> ANY --> SSH --> PERMIT
HTTPS Inbound - ANY --> ANY --> HTTPS --> PERMIT
HTTP Inbound - ANY --> ANY --> HTTP --> DENY
Firewall 2: No changes should be made to this firewall
Graphical user interface, application Description automatically generated



Firewall 3:
DNS Rule - ANY --> ANY --> DNS --> PERMIT
HTTPS Outbound - 192.168.0.1/24 --> ANY --> HTTPS --> PERMIT
Management - ANY --> ANY --> SSH --> PERMIT
HTTPS Inbound - ANY --> ANY --> HTTPS --> PERMIT
HTTP Inbound - ANY --> ANY --> HTTP --> DENY
Graphical user interface, application Description automatically generated

**NO.197** A security analyst is tasked with classifying data to be stored on company servers. Which of the following should be classified as proprietary?
(A). Customers' dates of birth
(B). Customers' email addresses
(C). Marketing strategies
(D). Employee salaries
*Answer:* B

**NO.198** Which of the following typically uses a combination of human and artificial intelligence to analyze event data and take action without intervention?
(A). TTP
(B). OSINT
(C). SOAR
(D). SIEM
*Answer:* C

**NO.199** An incident has occurred in the production environment.
Analyze the command outputs and identify the type of compromise.
If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.

**Compromise Type 1**

- ○ Logic bomb
- ○ Backdoor
- ○ RAT
- ○ SQL injection
- ○ Rootkit

Command output 1

```
$ cat /var/log/www/file.sh
#!/bin/bash

user=`grep john /etc/password`
if [ $user = "" ]; then
 mysql -u root -p mys3cr3tdbpw -e "drop database production"
fi

$ crontab -l
*/5 * * * * /var/log/www/file.sh
```

Command output 2

```
$ cat /var/log/www/file.sh
#!/bin/bash

date=`date +%Y-%m-%y`

echo "type in your full name: "
read loggedInName
nc -l -p 31337 -e /bin/bash
wget www.eicar.org/download/eicar.com.txt
echo "Hello, $loggedInName the virus file has been downloaded"
```

*Answer:*
see the answer below.
Explanation
Answer as SQL injection
Graphical user interface, text Description automatically generated

**NO.200** An analyst is reviewing logs associated with an attack. The logs indicate an attacker downloaded a malicious file that was quarantined by the AV solution. The attacker utilized a local non-administrative account to restore the malicious file to a new location. The file was then used by another process to execute a payload.

Which of the following attacks did the analyst observe?

(A). Privilege escalation
(B). Request forgeries
(C). Injection
(D). Replay attack

***Answer:*** B

Explanation

Cross-site request forgery, also known as one-click attack or session riding and abbreviated as CSRF (sometimes pronounced sea-surf[1]) or XSRF, is a type of malicious exploit of a website where unauthorized commands are submitted from a user that the web application trusts.[2] There are many ways in which a malicious website can transmit such commands; specially-crafted image tags, hidden forms, and JavaScript XMLHttpRequests, for example, can all work without the user's interaction or even knowledge.

Unlike cross-site scripting (XSS), which exploits the trust a user has for a particular site, CSRF exploits the trust that a site has in a user's browser.[3] In a CSRF attack, an innocent end user is tricked by an attacker into submitting a web request that they did not intend. This may cause actions to be performed on the website that can include inadvertent client or server data leakage, change of session state, or manipulation of an end user's account.

**NO.201** A security engineer is deploying a new wireless for a company. The company shares office space with multiple tenants. Which of the following should the engineer configured on the wireless network to ensure that confidential data is not exposed to unauthorized users?

(A). EAP
(B). TLS
(C). HTTPS
(D). AES

*Answer:* C

**NO.202** Which of the following risk management strategies would an organization use to maintain a legacy system with known risks for operational purposes?
(A). Acceptance
(B). Transference
(C). Avoidance
(D). Mitigation
*Answer:* A

**NO.203** A company needs to validate its updated incident response plan using a real-world scenario that will test decision points and relevant incident response actions without interrupting daily operations. Which of the following would BEST meet the company's requirements?
(A). Red-team exercise
(B). Capture-the-flag exercise
(C). Tabletop exercise
(D). Phishing exercise
*Answer:* C

**NO.204** A security analyst is designing the appropnate controls to limit unauthorized access to a physical site The analyst has a directive to utilize the lowest possible budget Which of the following would BEST meet the requirements?
(A). Preventive controls
(B). Compensating controls
(C). Deterrent controls
(D). Detective controls
*Answer:* C
Explanation
Deterrent makes sense on further thought. The question just states unauthorized access. It doesn't state the intent of any unauthorized intruders. Deterrence is designed to reduce the occurrence of unintentional bystanders or unmotivated malicious agents from entering the site. Should the agent be motivated enough, a preventative measure is needed. But again, the question doesn't list intentions. Therefore this method works to limit the number of unauthorized visitors by weeding out everyone but the motivated, and the truly stupid.

**NO.205** Which of the following are common VoIP-associated vulnerabilities? (Select TWO).
(A). SPIM
(B). vishing
(C). Hopping
(D). Phishing
(E). Credential harvesting
(F). Tailgating
*Answer:* A,B

**NO.206** Which of the following processes will eliminate data using a method that will allow the storage device to be reused after the process is complete?

(A). Pulverizing
(B). Overwriting
(C). Shredding
(D). Degaussing
*Answer:* D
Explanation
https://dataspan.com/blog/what-are-the-different-types-of-data-destruction-and-which-one-should-you-use/

**NO.207** A security analyst is reviewing web-application logs and finds the following log:

https://www.comptia.org/contact-us/%3Ffile%3D..%2F..%2F..%2Fetc%2Fpasswd

Which of the following attacks is being observed?
(A). Directory traversal
(B). XSS
(C). CSRF
(D). On-path attack
*Answer:* A

**NO.208** Which of the following explains why RTO is included in a BIA?
(A). It identifies the amount of allowable downtime for an application or system,
(B). It prioritizes risks so the organization can allocate resources appropriately,
(C). It monetizes the loss of an asset and determines a break-even point for risk mitigation.
(D). It informs the backup approach so that the organization can recover data to a known time.
*Answer:* A

**NO.209** Which of the following uses SAML for authentication?
(A). TOTP
(B). Federation
(C). Kerberos
(D). HOTP
*Answer:* B

**NO.210** An organization discovered files with proprietary financial data have been deleted. The files have been recovered from backup but every time the Chief Financial Officer logs in to the file server, the same files are deleted again No other users are experiencing this issue. Which of the following types of malware is MOST likely causing this behavior?
(A). Logic bomb
(B). Crypto malware
(C). Spyware
(D). Remote access Trojan
*Answer:* A

**NO.211** A user forwarded a suspicious email to the security team, Upon investigation, a malicious URL was discovered. Which of the following should be done FIRST to prevent other users from accessing the malicious URL?

(A). Configure the web content filter for the web address.
(B). Report the website to threat intelligence partners
(C). Set me SIEM to alert for any activity to the web address.
(D). Send out a corporate communication to warn all users Of the malicious email.
*Answer:* D

**NO.212** A security analyst needs to be able to search and correlate logs from multiple sources in a single tool Which of the following would BEST allow a security analyst to have this ability?
(A). SOAR
(B). SIEM
(C). Log collectors
(D). Network-attached storage
*Answer:* B
Explanation
SIEM event correlation is an essential part of any SIEM solution. It aggregates and analyzes log data from across your network applications, systems, and devices, making it possible to discover security threats and malicious patterns of behaviors that otherwise go unnoticed and can lead to compromise or data loss.

**NO.213** An engineer recently deployed a group of 100 web servers in a cloud environment. Per the security policy, all web-server ports except 443 should be disabled. Which of the following can be used to accomplish this task?
(A). Application allow list
(B). SWG
(C). Host-based firewall
(D). VPN
*Answer:* B

**NO.214** Which of the following describes a social engineering technique that seeks to exploit a person's sense of urgency?
(A). A phishing email stating a cash settlement has been awarded but will expire soon
(B). A smishing message stating a package is scheduled for pickup
(C). A vishing call that requests a donation be made to a local charity
(D). A SPIM notification claiming to be undercover law enforcement investigating a cybercrime
*Answer:* A
Explanation
Phishing
As one of the most popular social engineering attack types, phishing scams are email and text message campaigns aimed at creating a sense of urgency, curiosity or fear in victims. It then prods them into revealing sensitive information, clicking on links to malicious websites, or opening attachments that contain malware.
https://www.imperva.com/learn/application-security/social-engineering-attack/#:~:text=Phishing,curiosity%20or

**NO.215** As part of a security compliance assessment, an auditor performs automated vulnerability scans. In addition, which of the following should the auditor do to complete the assessment?

(A). User behavior analysis
(B). Packet captures
(C). Configuration reviews
(D). Log analysis
*Answer:* D
Explanation
A vulnerability scanner is essentially doing that. It scans every part of your network configuration that it can, and determines if known vulnerabilities are known at any point of that.

**NO.216** A user reports falling for a phishing email to an analyst. Which of the following system logs would the analyst check FIRST?
(A). DNS
(B). Message gateway
(C). Network
(D). Authentication
*Answer:* C

**NO.217** Field workers in an organization are issued mobile phones on a daily basis All the work is performed within one city and the mobile phones are not used for any purpose other than work The organization does not want these pnones used for personal purposes. The organization would like to issue the phones to workers as permanent devices so the pnones do not need to be reissued every day Qven the conditions described, which of the following technologies would BEST meet these requirements'
(A). Geofencing
(B). Mobile device management
(C). Containenzation
(D). Remote wiping
*Answer:* B

**NO.218** A major political party experienced a server breach. The hacker then publicly posted stolen internal communications concerning campaign strategies to give the opposition party an advantage. Which of the following BEST describes these threat actors?
(A). Semi-authorized hackers
(B). State actors
(C). Script kiddies
(D). Advanced persistent threats
*Answer:* B

**NO.219** Business partners are working on a secunty mechanism lo validate transactions securely. The requirement is for one company to be responsible for deploying a trusted solution that will register and issue artifacts used to sign encrypt, and decrypt transaction files. Which of the following is the BEST solution to adopt?
(A). PKI
(B). Blockchain
(C). SAML
(D). OAuth

*Answer:* A

**NO.220** A security analyst is receiving numerous alerts reporting that the response time of an internet-facing application has been degraded However, the internal network performance was not degraded. Which of the following MOST likely explains this behavior?
(A). DNS poisoning
(B). MAC flooding
(C). DDoS attack
(D). ARP poisoning

*Answer:* C

**NO.221** Two hospitals merged into a single organization. The privacy officer requested a review of all records to ensure encryption was used during record storage, in compliance with regulations. During the review, the officer discovered thai medical diagnosis codes and patient names were left unsecured. Which of the following types of data does this combination BEST represent?
(A). Personal health information
(B). Personally Identifiable Information
(C). ToKenized data
(D). Proprietary data

*Answer:* A

**NO.222** A company is providing security awareness training regarding the importance of not forwarding social media messages from unverified sources. Which of the following risks would this training help to prevent?
(A). Hoaxes
(B). SPIMs
(C). Identity fraud
(D). Credential harvesting

*Answer:* A

Explanation
Hoax
A hoax is a falsehood deliberately fabricated to masquerade as the truth. It is distinguishable from errors in observation or judgment, rumors, urban legends, pseudo sciences, and April Fools' Day events that are passed along in good faith by believers or as jokes.
Identity theft
Identity theft occurs when someone uses another person's personal identifying information, like their name, identifying number, or credit card number, without their permission, to commit fraud or other crimes. The term identity theft was coined in 1964. Identity fraud (also known as identity theft or crime) involves someone using another individual's personal information without consent, often to obtain a benefit.
Credential Harvesting
Credential Harvesting (or Account Harvesting) is the use of MITM attacks, DNS poisoning, phishing, and other vectors to amass large numbers of credentials (username / password combinations) for reuse.

**NO.223** A company wants to build a new website to sell products online. The website will host a

storefront application that will allow visitors to add products to a shopping cart and pay for the products using a credit card. Which of the following protocols would be the MOST secure to implement?

(A). SSL
(B). FTP
(C). SNMP
(D). TLS

*Answer:* A

**NO.224** Certain users are reporting their accounts are being used to send unauthorized emails and conduct suspicious activities After further investigation, a security analyst notices the following

* All users share workstations throughout the day
* Endpoint protection was disabled on several workstations throughout the network.
* Travel times on logins from the affected users are impossible
* Sensitive data is being uploaded to external sites
* All usee account passwords were forced lo be reset and the issue continued Which of the following attacks is being used to compromise the user accounts?

(A). Brute-force
(B). Keylogger
(C). Dictionary
(D). Rainbow

*Answer:* C

**NO.225** While investigating a recent security incident, a security analyst decides to view all network connections on a particular server, Which of the following would provide the desired information?

(A). arp
(B). nslookup
(C). netstat
(D). nmap

*Answer:* C

**NO.226** Server administrators want to configure a cloud solution so that computing memory and processor usage is maximized most efficiently across a number or virtual servers. They also need to avoid potential dental-of-service situations caused by availability. Which of the following should administrators configure to maximize system availability while efficiently utilizing available computing power?

(A). Dynamic resource allocation
(B). High availably
(C). Segmentation
(D). Container security

*Answer:* B

**NO.227** Which of the following prevents an employee from seeing a colleague who is visiting an inappropriate website?

(A). Job rotation policy
(B). NDA

(C). AUP
(D). Separation Of duties policy
*Answer:* D

**NO.228** Digital signatures use asymmetric encryption. This means the message is encrypted with:
(A). the sender's private key and decrypted with the sender's public key
(B). the sender's public key and decrypted with the sender's private key
(C). the sender's private key and decrypted with the recipient's public key.
(D). the sender's public key and decrypted with the recipient's private key
*Answer:* B

**NO.229** Which of the following is a risk that is specifically associated with hosting applications in the public cloud?
(A). Unsecured root accounts
(B). Zero-day
(C). Shared tenancy
(D). Insider threat
*Answer:* C

**NO.230** An attacker has determined the best way to impact operations is to infiltrate third-party software vendors.
Which of the following vectors is being exploited?
(A). Social media
(B). Cloud
(C). Supply chain
(D). Social engineering
*Answer:* D

**NO.231** An administrator is configuring a firewall rule set for a subnet to only access DHCP, web pages, and SFTP, and to specifically block FTP. Which of the following would BEST accomplish this goal?

```
A.      [Permission Source Destination Port]
        Allow: Any Any 80
        Allow: Any Any 443
        Allow: Any Any 67
        Allow: Any Any 68
        Allow: Any Any 22
        Deny: Any Any 21
        Deny: Any Any

B.      [Permission Source Destination Port]
        Allow: Any Any 80
        Allow: Any Any 443
        Allow: Any Any 67
        Allow: Any Any 68
        Deny: Any Any 22
        Allow: Any Any 21
        Deny: Any Any

C.      [Permission Source Destination Port]
        Allow: Any Any 80
        Allow: Any Any 443
        Allow: Any Any 22
        Deny: Any Any 67
        Deny: Any Any 68
        Deny: Any Any 21
        Allow: Any Any

D.      [Permission Source Destination Port]
        Allow: Any Any 80
        Allow: Any Any 443
        Deny: Any Any 67
        Allow: Any Any 68
        Allow: Any Any 22
        Allow: Any Any 21
        Allow: Any Any
```

(A). Option A
(B). Option B
(C). Option C
(D). Option D
*Answer:* A

**NO.232** A SOC operator is analyzing a log file that contains the following entries:

```
[06-Apr-2021-18:00:06] GET /index.php/../../../../../etc/passwd
[06-Apr-2021-18:01:07] GET /index.php/../../../../../etc/shadow
[06-Apr-2021-18:01:26] GET /index.php/../../../../../../../etc/passwd
[06-Apr-2021-18:02:16] GET /index.php?var1=;cat /etc/passwd;&var2=7865tgydk
[06-Apr-2021-18:02:56] GET /index.php?var1=;cat /etc/shadow;&var2=7865tgydk
```

(A). SQL injection and improper input-handling attempts
(B). Cross-site scripting and resource exhaustion attempts
(C). Command injection and directory traversal attempts

(D). Error handling and privilege escalation attempts

*Answer:* C

**NO.233** An employee received a word processing file that was delivered as an email attachment The subject line and email content enticed the employee to open the attachment. Which of the following attack vectors BEST matches this malware?

(A). Embedded Python code

(B). Macro-enabled file

(C). Bash scripting

(D). Credential-harvesting website

*Answer:* B

**NO.234** After a recent external audit, the compliance team provided a list of several non-compliant, in-scope hosts that were not encrypting cardholder data at rest, Which of the following compliance frameworks would address the compliance team's GREATEST concern?

(A). PCI DSS

(B). GDPR

(C). ISO 27001

(D). NIST CSF

*Answer:* A

**NO.235** A security incident has been resolved Which of the following BEST describes the importance of the final phase of the incident response plan?

(A). It examines and documents how well the team responded discovers what caused the incident, and determines how the incident can be avoided in the future

(B). It returns the affected systems back into production once systems have been fully patched, data restored and vulnerabilities addressed

(C). It identifies the incident and the scope of the breach how it affects the production environment, and the ingress point

(D). It contains the affected systems and disconnects them from the network, preventing further spread of the attack or breach

*Answer:* A

**NO.236** A technician enables full disk encryption on a laptop that will be taken on a business tnp. Which of the following does this process BEST protect?

(A). Data in transit

(B). Data in processing

(C). Data at rest

(D). Data tokenization

*Answer:* C

Explanation

Data at rest: Data at rest is data in its stored or resting state, which is typically on some type of persistent storage such as a hard drive or tape. Symmetric encryption is used in this case.

**NO.237** A company discovered that terabytes of data have been exfiltrated over the past year after an employee clicked on an email link. The threat continued to evolve and remain undetected until a

security analyst noticed an abnormal amount of external connections when the employee was not working. Which of the following is the MOST likely threat actor?
(A). Shadow IT
(B). Script kiddies
(C). APT
(D). Insider threat
**Answer:** C

**NO.238** An organization would like to give remote workers the ability to use applications hosted inside the corporate network Users will be allowed to use their personal computers or they will be provided organization assets Either way no data or applications will be installed locally on any user systems Which of the following mobile solutions would accomplish these goals?
(A). VDI
(B). MDM
(C). COPE
(D). UTM
**Answer:** A

**NO.239** After a recent security incident, a security analyst discovered that unnecessary ports were open on a firewall policy for a web server. Which of the following firewall policies would be MOST secure for a web server?
A)

| [Source | Destination | Port | Action] |
|---------|-------------|---------|--------|
| Any | Any | TCP 53 | Allow |
| Any | Any | TCP 80 | Allow |
| Any | Any | TCP 443 | Allow |
| Any | Any | Any | Any |

B)

| [Source | Destination | Port | Action] |
|---------|-------------|---------|--------|
| Any | Any | TCP 53 | Deny |
| Any | Any | TCP 80 | Allow |
| Any | Any | TCP 445 | Allow |
| Any | Any | Any | Allow |

C)

| [Source | Destination | Port | Action] |
|---------|-------------|---------|--------|
| Any | Any | TCP 80 | Deny |
| Any | Any | TCP 443 | Allow |
| Any | Any | Any | Allow |

D)

```
[Source    Destination      Port          Action]
 Any        Any             TCP 80         Allow
 Any        Any             TCP 443        Allow
 Any        Any             Any            Deny
```

(A). Option A
(B). Option B
(C). Option C
(D). Option D
*Answer:* D

**NO.240** Which of the following secure coding techniques makes compromised code more difficult for hackers to use?
(A). Obfuscation
(B). Normalization
(C). Execution
(D). Reuse
*Answer:* A
Explanation
https://en.wikipedia.org/wiki/Obfuscation_(software)

**NO.241** In a phishing attack, the perpetrator is pretending to be someone in a position of power in an effort to influence the target to click or follow the desired response. Which of the following principles is being used?
(A). Authority
(B). Intimidation
(C). Consensus
(D). Scarcity
*Answer:* B

**NO.242** Which of the following describes the exploitation of an interactive process to gain access to restncted areas?
(A). Persistence
(B). Buffer overflow
(C). Privilege escalation
(D). Pharming
*Answer:* C
Explanation
https://en.wikipedia.org/wiki/Privilege_escalation#:~:text=Privilege%20escalation%20is%20the%20act,from%2

**NO.243** Which of the following is an example of risk avoidance?
(A). Installing security updates directly in production to expedite vulnerability fixes
(B). Buying insurance to prepare for financial loss associated with exploits
(C). Not installing new software to prevent compatibility errors
(D). Not taking preventive measures to stop the theft of equipment

*Answer:* C

**NO.244** The Chief Information Security Officer directed a nsk reduction in shadow IT and created a policy requiring all unsanctioned high-nsk SaaS applications to be blocked from user access Which of the following is the BEST security solution to reduce this risk?
(A). CASB
(B). VPN concentrator
(C). MFA
(D). VPC endpoint
*Answer:* A

**NO.245** A database administrator wants to grant access to an application that will be reading and writing data to a database. The database is shared by other applications also used by the finance department Which of the following account types Is MOST appropriate for this purpose?
(A). Service
(B). Shared
(C). eneric
(D). Admin
*Answer:* A

**NO.246** Which of the following is the BEST action to foster a consistent and auditable incident response process?
(A). Rotate CIRT members to foster a shared responsibility model in the organization.
(B). Publish the document in a central repository that is easily accessible to the organization.
(C). Incent new hires to constantly update the document with external knowledge.
(D). Restrict eligibility to comment on the process to subject matter experts of each IT silo.
*Answer:* A

**NO.247** A penetration tester was able to compromise an internal server and is now trying to pivot the current session in a network lateral movement Which of the following tools if available on the server, will provide the MOST useful information for the next assessment step?
(A). Autopsy
(B). Cuckoo
(C). Memdump
(D). Nmap
*Answer:* D
Explanation
Nmap is basically mapping a network. The purpose of lateral pivoting is to gain a new perspective, or new information that will allow you to either privilege escalate, or to achieve the goal of the attack. If the compromised server the pen tester is exploiting has nmap enabled, the pen tester will be able to get an in-depth inside view of the internal network structure.

**NO.248** A systems administrator is troubleshooting a server's connection to an internal web server. The administrator needs to determine the correct ports to use. Which of the following tools BEST shows which ports on the web server are in a listening state?
(A). Ipconfig

(B). ssh
(C). Ping
(D). Netstat
*Answer:* D
Explanation
https://www.sciencedirect.com/topics/computer-science/listening-port

**NO.249** A systems administrator reports degraded performance on a virtual server. The administrator increases the virtual memory allocation which improves conditions, but performance degrades again after a few days. The administrator runs an anarysis tool and sees the following output:

```
==3214== timeAttend.exe analyzed
==3214== ERROR SUMMARY:
==3214== malloc/free; in use at exit: 4608 bytes in 18 blocks.
==3214== checked 2215 bytes
==3214== definitely lost: 4608 bytes in 18 blocks.
```

The administrator terminates the timeAttend.exe observes system performance over the next few days, and notices that the system performance does not degrade Which of the following issues is MOST likely occurring?
(A). DLL injection
(B). API attack
(C). Buffer oveiflow
(D). Memory leak
*Answer:* C

**NO.250** Which of the following controls is used to make an organization initially aware of a data compromise?
(A). Protective
(B). Preventative
(C). Corrective
(D). Detective
*Answer:* B
Explanation
https://purplesec.us/security-controls/

**NO.251** A security analyst has identified malv/are spreading through the corporate network and has activated the CSIRT Which of the following should the analyst do NEXT?
(A). Review how the malware was introduced to the network
(B). Attempt to quarantine all infected hosts to limit further spread
(C). Create help desk tickets to get infected systems reimaged
(D). Update all endpomt antivirus solutions with the latest updates
*Answer:* C

**NO.252** A company's security team received notice of a critical vulnerability affecting a high-profile device within the web infrastructure. The vendor patch was just made available online but has not yet been regression tested in development environments. In the interim, firewall rules were implemented to reduce the access to the interface affected by the vulnerability. Which of the

following controls does this scenario describe?
(A). Deterrent
(B). Compensating
(C). Detective
(D). Preventive
*Answer:* B

**NO.253** A Chief Security Officer is looking for a solution that can reduce the occurrence of customers receiving errors from back-end infrastructure when systems go offline unexpectedly. The security architect would like the solution to help maintain session persistence. Which of the following would BEST meet the requirements?
(A). Reverse proxy
(B). NIC teaming
(C). Load balancer
(D). Forward proxy
*Answer:* B

**NO.254** An administrator is experiencing issues when trying to upload a support file to a vendor A pop-up message reveals that a payment card number was found in the file, and the file upload was Mocked. Which of the following controls is most likely causing this issue and should be checked FIRST?
(A). DLP
(B). Firewall rule
(C). Content filter
(D). MDM
(E). Application allow list
*Answer:* A

**NO.255** After multiple on premises security solutions were migrated to the cloud, the incident response time increased.
The analyst are spending a long time to trace information on different cloud consoles and correlating data in different formats. Which of the following can be used to optimize the incident response time?
(A). CASB
(B). VPC
(C). SWG
(D). CMS
*Answer:* A

**NO.256** An organization wants to participate in threat intelligence information sharing with peer groups. Which of the following would MOST likely meet the organizations requirement?
(A). Perform OSINT investigations
(B). Subscribe to threat intelligence feeds
(C). Submit RFCs
(D). Implement a TAXII server
*Answer:* B

**NO.257** A company is looking to migrate some servers to the cloud to minimize its technology footprint. The company has 100 databases that are on premises. Which of the following solutions will require the LEAST management and support from the company?
(A). SaaS
(B). IaaS
(C). PaaS
(D). SDN
*Answer:* A
Explanation
In order from the least amount of management, to the most amount of management for the company:
SaaS > PaaS > IaaS > On-site
SaaS - Basically everything is managed by the provider
PaaS - The provider manages everything other than applications and data IaaS - The middle-ground o f services. The provider takes on half, while you take on the other half. Provider is responsible for virtualization, networking, servers, and storage. The company is responsible for applications, data, runtime, OS, and middleware.
On-site - There is no service provider. The company is responsible for the whole pie.
https://www.pcmag.com/picks/the-best-database-as-a-service-solutions

**NO.258** An organization is migrating several SaaS applications that support SSO. The security manager wants to ensure the migration is completed securely. Which of the following should the organization consider before implementation? (Select TWO).
(A). The back-end directory source
(B). The identity federation protocol
(C). The hashing method
(D). The encryption method
(E). The registration authority
(F). The certificate authority
*Answer:* C,F

**NO.259** An organization just implemented a new security system. Local laws state that citizens must be notified prior to encountering the detection mechanism to deter malicious activities. Which of the following is being implemented?
(A). Proximity cards with guards
(B). Fence with electricity
(C). Drones with alarms
(D). Motion sensors with signage
*Answer:* D

**NO.260** An IT security manager requests a report on company information that is publicly available. The manager's concern is that malicious actors will be able to access the data without engaging in active reconnaissance.
Which of the following is the MOST efficient approach to perform the analysis?

(A). Provide a domain parameter to tool.
(B). Check public DNS entries using dnsenum.
(C). Perform a vulnerability scan targeting a public company's IR
(D). Execute nmap using the options: scan all ports and sneaky mode.
*Answer:* B

**NO.261** Which of the following is the BEST example of a cost-effective physical control to enforce a USB removable media restriction policy?
(A). Putting security/antitamper tape over USB ports logging the port numbers and regularly inspecting the ports
(B). Implementing a GPO that will restrict access to authorized USB removable media and regularly verifying that it is enforced
(C). Placing systems into locked key-controlled containers with no access to the USB ports
(D). Installing an endpoint agent to detect connectivity of USB and removable media
*Answer:* B

**NO.262** A technician was dispatched to complete repairs on a server in a data center. While locating the server, the technician entered a restricted area without authorization. Which of the following security controls would BEST prevent this in the future?
(A). Use appropriate signage to mark all areas.
(B). Utilize cameras monitored by guards.
(C). Implement access control vestibules.
(D). Enforce escorts to monitor all visitors.
*Answer:* C