

CompTIA

Exam Questions SY0-601

CompTIA Security+ Exam



NEW QUESTION 1

An organization hired a consultant to assist with an active attack, and the consultant was able to identify the compromised accounts and computers. Which of the following is the consultant MOST likely to recommend to prepare for eradication?

- A. Quarantining the compromised accounts and computers, only providing them with network access
- B. Segmenting the compromised accounts and computers into a honeynet so as to not alert the attackers.
- C. Isolating the compromised accounts and computers, cutting off all network and internet access.
- D. Logging off and deleting the compromised accounts and computers to eliminate attacker access.

Answer: B

NEW QUESTION 2

A database administrator needs to ensure all passwords are stored in a secure manner, so the administrator adds randomly generated data to each password before string. Which of the following techniques BEST explains this action?

- A. Predictability
- B. Key stretching
- C. Salting
- D. Hashing

Answer: C

NEW QUESTION 3

An attacker is attempting to exploit users by creating a fake website with the URL users. Which of the following social-engineering attacks does this describe?

- A. Information elicitation
- B. Typo squatting
- C. Impersonation
- D. Watering-hole attack

Answer: D

NEW QUESTION 4

The concept of connecting a user account across the systems of multiple enterprises is BEST known as:

- A. federation.
- B. a remote access policy.
- C. multifactor authentication.
- D. single sign-on.

Answer: D

NEW QUESTION 5

In which of the following risk management strategies would cybersecurity insurance be used?

- A. Transference
- B. Avoidance
- C. Acceptance
- D. Mitigation

Answer: A

NEW QUESTION 6

An organization's help desk is flooded with phone calls from users stating they can no longer access certain websites. The help desk escalates the issue to the security team, as these websites were accessible the previous day. The security analysts run the following command: `ipconfig /flushdns`, but the issue persists. Finally, an analyst changes the DNS server for an impacted machine, and the issue goes away. Which of the following attacks MOST likely occurred on the original DNS server?

- A. DNS cache poisoning
- B. Domain hijacking
- C. Distributed denial-of-service
- D. DNS tunneling

Answer: B

NEW QUESTION 7

A Chief Executive Officer (CEO) is dissatisfied with the level of service from the company's new service provider. The service provider is preventing the CEO from sending email from a work account to a personal account. Which of the following types of service providers is being used?

- A. Telecommunications service provider
- B. Cloud service provider
- C. Master managed service provider
- D. Managed security service provider

Answer: B

NEW QUESTION 8

A desktop support technician recently installed a new document-scanning software program on a computer. However, when the end user tried to launch the program, it did not respond. Which of the following is MOST likely the cause?

- A. A new firewall rule is needed to access the application.
- B. The system was quarantined for missing software updates.
- C. The software was not added to the application whitelist.
- D. The system was isolated from the network due to infected software.

Answer: C

NEW QUESTION 9

A small company that does not have security staff wants to improve its security posture. Which of the following would BEST assist the company?

- A. MSSP
- B. SOAR
- C. IaaS
- D. PaaS

Answer: B

NEW QUESTION 10

The website <http://companywebsite.com> requires users to provide personal information, including security question responses, for registration. Which of the following would MOST likely cause a data breach?

- A. Lack of input validation
- B. Open permissions
- C. Unsecure protocol
- D. Missing patches

Answer: C

NEW QUESTION 10

A company recently transitioned to a strictly BYOD culture due to the cost of replacing lost or damaged corporate-owned mobile devices. Which of the following technologies would be BEST to balance the BYOD culture while also protecting the company's data?

- A. Containerization
- B. Geofencing
- C. Full-disk encryption
- D. Remote wipe

Answer: C

NEW QUESTION 14

A security analyst is performing a packet capture on a series of SOAP HTTP requests for a security assessment. The analyst redirects the output to a file. After the capture is complete, the analyst needs to review the first transactions quickly and then search the entire series of requests for a particular string. Which of the following would be BEST to use to accomplish the task? (Select TWO).

- A. head
- B. Tcpdump
- C. grep
- D. rail
- E. curl
- F. openssl
- G. dd

Answer: AB

NEW QUESTION 16

Which of the following would be BEST to establish between organizations to define the responsibilities of each party, outline the key deliverables, and include monetary penalties for breaches to manage third-party risk?

- A. An ARO
- B. An MOU
- C. An SLA
- D. A BPA

Answer: B

NEW QUESTION 21

A software developer needs to perform code-execution testing, black-box testing, and non-functional testing on a new product before its general release. Which of the following BEST describes the tasks the developer is conducting?

- A. Verification
- B. Validation
- C. Normalization
- D. Staging

Answer: A

NEW QUESTION 22

A security analyst needs to be proactive in understand the types of attacks that could potentially target the company's execute. Which of the following intelligence sources should to security analyst review?

- A. Vulnerability feeds
- B. Trusted automated exchange of indicator information
- C. Structured threat information expression
- D. Industry information-sharing and collaboration groups

Answer: D

NEW QUESTION 26

A researcher has been analyzing large data sets for the last ten months. The researcher works with colleagues from other institutions and typically connects via SSH to retrieve additional data. Historically, this setup has worked without issue, but the researcher recently started getting the following message:

Which of the following network attacks is the researcher MOST likely experiencing?

- A. MAC cloning
- B. Evil twin
- C. Man-in-the-middle
- D. ARP poisoning

Answer: C

NEW QUESTION 29

A security administrator currently spends a large amount of time on common security tasks, such aa report generation, phishing investigations, and user provisioning and deprovisioning This prevents the administrator from spending time on other security projects. The business does not have the budget to add more staff members. Which of the following should the administrator implement?

- A. DAC
- B. ABAC
- C. SCAP
- D. SOAR

Answer: D

NEW QUESTION 31

An organization regularly scans its infrastructure for missing security patches but is concerned about hackers gaining access to the scanner's account. Which of the following would be BEST to minimize this risk?

- A. Require a complex, eight-character password that is updated every 90 days.
- B. Perform only non-intrusive scans of workstations.
- C. Use non-credentialed scans against high-risk servers.
- D. Log and alert on unusual scanner account logon times.

Answer: D

NEW QUESTION 36

Which of the following is the MOST secure but LEAST expensive data destruction method for data that is stored on hard drives?

- A. Pulverizing
- B. Shredding
- C. Incinerating
- D. Degaussing

Answer: D

NEW QUESTION 41

When implementing automation with IoT devices, which of the following should be considered FIRST to keep the network secure?

- A. 2-Wave compatibility
- B. Network range
- C. Zigbee configuration
- D. Communication protocols

Answer: D

NEW QUESTION 42

A web server administrator has redundant servers and needs to ensure failover to the secondary server when the primary server goes down. Which of the following should the administrator implement to avoid disruption?

- A. NIC teaming
- B. High availability
- C. Dual power supply
- D. IaaS

Answer: B

NEW QUESTION 47

A security manager for a retailer needs to reduce the scope of a project to comply with PCI DSS. The PCI data is located in different offices than where credit cards are accepted. All the offices are connected via MPLS back to the primary datacenter. Which of the following should the security manager implement to achieve the objective?

- A. Segmentation
- B. Containment
- C. Geofencing
- D. Isolation

Answer: A

NEW QUESTION 52

An organization's RPO for a critical system is two hours. The system is used Monday through Friday, from 9:00 am to 5:00 pm. Currently, the organization performs a full backup every Saturday that takes four hours to complete. Which of the following additional backup implementations would be the BEST way for the analyst to meet the business requirements?

- A. Incremental backups Monday through Friday at 6:00 p.m and differential backups hourly
- B. Full backups Monday through Friday at 6:00 p.m and incremental backups hourly.
- C. incremental backups Monday through Friday at 6:00 p.m and full backups hourly.
- D. Full backups Monday through Friday at 6:00 p.m and differential backups hourly.

Answer: A

NEW QUESTION 54

An organization wants to implement a third factor to an existing multifactor authentication. The organization already uses a smart card and password. Which of the following would meet the organization's needs for a third factor?

- A. Date of birth
- B. Fingerprints
- C. PIN
- D. TPM

Answer: B

NEW QUESTION 56

While reviewing the wireless router, the systems administrator of a small business determines someone is spoofing the MAC address of an authorized device. Given the table below:

Which of the following should be the administrator's NEXT step to detect if there is a rogue system without impacting availability?

- A. Conduct a ping sweep.
- B. Physically check each system,
- C. Deny Internet access to the "UNKNOWN" hostname.
- D. Apply MAC filtering,

Answer: D

NEW QUESTION 61

A company needs to centralize its logs to create a baseline and have visibility on its security events. Which of the following technologies will accomplish this objective?

- A. Security information and event management
- B. A web application firewall
- C. A vulnerability scanner
- D. A next-generation firewall

Answer: A

NEW QUESTION 63

A company is concerned about its security after a red-team exercise. The report shows the team was able to reach the critical servers due to the SMB being exposed to the Internet and running NTLMV1, Which of the following BEST explains the findings?

- A. Default settings on the servers
- B. Unsecured administrator accounts
- C. Open ports and services
- D. Weak Data encryption

Answer: C

NEW QUESTION 65

A Chief Security Officer (CSO) is concerned about the volume and integrity of sensitive information that is exchanged between the organization and a third party through email. The CSO is particularly concerned about an unauthorized party who is intercepting information that is in transit between the two organizations. Which of the following would address the CSO's concerns?

- A. SPF
- B. DMARC
- C. SSL
- D. DKIM
- E. TLS

Answer: E

NEW QUESTION 68

A nationwide company is experiencing unauthorized logins at all hours of the day. The logins appear to originate from countries in which the company has no employees. Which of the following controls should the company consider using as part of its IAM strategy? (Select TWO).

- A. A complex password policy
- B. Geolocation
- C. An impossible travel policy
- D. Self-service password reset
- E. Geofencing
- F. Time-based logins

Answer: AB

NEW QUESTION 70

The security administrator has installed a new firewall which implements an implicit DENY policy by default.

INSTRUCTIONS:

Click on the firewall and configure it to allow ONLY the following communication.

* 1. The Accounting workstation can ONLY access the web server on the public network over the default HTTPS port. The accounting workstation should not access other networks.

* 2. The HR workstation should be restricted to communicate with the Financial server ONLY, over the default SCP port

* 3. The Admin workstation should ONLY be able to access the servers on the secure network over the default TFTP port.

Instructions: The firewall will process the rules in a top-down manner in order as a first match The port number must be typed in and only one port number can be entered per rule Type ANY for all ports. The original firewall configuration can be reset at any time by pressing the reset button. Once you have met the simulation requirements, click save and then Done to submit.

Hot Area:

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface Description automatically generated with medium confidence

Graphical user interface Description automatically generated

Section: Network Security

Implicit deny is the default security stance that says if you aren't specifically granted access or privileges for a resource, you're denied access by default. Rule #1 allows the Accounting workstation to ONLY access the web server on the public network over the default HTTPS port, which is TCP port 443. Rule #2 allows the HR workstation to ONLY communicate with the Financial server over the default SCP port, which is TCP Port 22. Rule #3 & Rule #4 allow the Admin workstation to ONLY access the Financial and Purchasing servers located on the secure network over the default TFTP port, which is Port 69.

References: Stewart,

James Michael, CompTIA Security+ Review Guide, Sybex, Indianapolis, 2014, pp. 26, 44 http://en.wikipedia.org/wiki/List_of_TCP_and_UDP_port_numbers

NEW QUESTION 72

A financial analyst has been accused of violating the company's AUP and there is forensic evidence to substantiate the allegation. Which of the following would dispute the analyst's claim of innocence?

- A. Legal hold
- B. Order of volatility
- C. Non-repudiation
- D. Chain of custody

Answer: D

NEW QUESTION 73

A cloud administrator is configuring five compute instances under the same subnet in a VPC. Three instances are required to communicate with one another, and the other two must be logically isolated from all other instances in the VPC. Which of the following must the administrator configure to meet this requirement?

- A. One security group
- B. Two security groups
- C. Three security groups
- D. Five security groups

Answer: B

NEW QUESTION 75

A security analyst discovers that a company username and password database was posted on an internet forum. The username and passwords are stored in plain text. Which of the following would mitigate the damage done by this type of data exfiltration in the future?

- A. Create DLP controls that prevent documents from leaving the network
- B. Implement salting and hashing
- C. Configure the web content filter to block access to the forum.
- D. Increase password complexity requirements

Answer: A

NEW QUESTION 79

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 checksum
- C. The location of the artifacts
- D. The vendor's name
- E. The date and time
- F. A warning banner

Answer: AE

NEW QUESTION 84

An organization recently acquired an ISO 27001 certification. Which of the following would MOST likely be considered a benefit of this certification?

- A. It allows for the sharing of digital forensics data across organizations
- B. It provides insurance in case of a data breach
- C. It provides complimentary training and certification resources to IT security staff.
- D. It certifies the organization can work with foreign entities that require a security clearance
- E. It assures customers that the organization meets security standards

Answer: E

NEW QUESTION 86

A user recently attended an exposition and received some digital promotional materials. The user later noticed blue boxes popping up and disappearing on the computer, and reported receiving several spam emails, which the user did not open. Which of the following is MOST likely the cause of the reported issue?

- A. There was a drive-by download of malware
- B. The user installed a cryptominer
- C. The OS was corrupted
- D. There was malicious code on the USB drive

Answer: D

NEW QUESTION 89

Which of the following types of attacks is specific to the individual it targets?

- A. Whaling
- B. Pharming
- C. Smishing
- D. Credential harvesting

Answer: D

NEW QUESTION 92

An organization has implemented a two-step verification process to protect user access to data that is stored in the cloud. Each employee now uses an email address of mobile number and a code to access the data. Which of the following authentication methods did the organization implement?

- A. Token key
- B. Static code
- C. Push notification
- D. HOTP

Answer: A

NEW QUESTION 94

An organization's Chief Security Officer (CSO) wants to validate the business's involvement in the incident response plan to ensure its validity and thoroughness. Which of the following will the CSO MOST likely use?

- A. An external security assessment
- B. A bug bounty program
- C. A tabletop exercise
- D. A red-team engagement

Answer: C

NEW QUESTION 98

A security analyst must determine if either SSH or Telnet is being used to log in to servers. Which of the following should the analyst use?

- A. logger
- B. Metasploit
- C. tcpdump
- D. netstat

Answer: D

NEW QUESTION 99

A recent malware outbreak across a subnet included successful rootkit installations on many PCs, ensuring persistence by rendering remediation efforts ineffective. Which of the following would BEST detect the presence of a rootkit in the future?

- A. FDE
- B. NIDS
- C. EDR
- D. DLP

Answer: C

NEW QUESTION 101

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

NEW QUESTION 103

A network engineer is troubleshooting wireless network connectivity issues that were reported by users. The issues are occurring only in the section of the building that is closest to the parking lot. Users are intermittently experiencing slow speeds when accessing websites and are unable to connect to network drives. The issues appear to increase when laptop users return desks after using their devices in other areas of the building. There have also been reports of users being required to enter their credentials on web pages in order to gain access to them. Which of the following is the MOST likely cause of this issue?

- A. An external access point is engaging in an evil-twin attack.
- B. The signal on the WAP needs to be increased in that section of the building.
- C. The certificates have expired on the devices and need to be reinstalled.
- D. The users in that section of the building are on a VLAN that is being blocked by the firewall.

Answer: A

NEW QUESTION 108

An organization relies on third-party video conferencing to conduct daily business. Recent security changes now require all remote workers to utilize a VPN to corporate resources. Which of the following would BEST maintain high-quality video conferencing while minimizing latency when connected to the VPN?

- A. Using geographic diversity to have VPN terminators closer to end users
- B. Utilizing split tunneling so only traffic for corporate resources is encrypted
- C. Purchasing higher-bandwidth connections to meet the increased demand
- D. Configuring QoS properly on the VPN accelerators

Answer: D

NEW QUESTION 109

A security analyst is performing a forensic investigation compromised account credentials. Using the Event Viewer, the analyst able to detect the following message, "Special privileges assigned to new login." Several of these messages did not have a valid logon associated with the user before these privileges were assigned. Which of the following attacks is MOST likely being detected?

- A. Pass-the-hash
- B. Buffer overflow
- C. Cross-site scripting
- D. Session replay

Answer: A

NEW QUESTION 111

A well-known organization has been experiencing attacks from APIs. The organization is concerned that custom malware is being created and emailed into the company or installed on USB sticks that are dropped in parking lots. Which of the following is the BEST defense against this scenario?

- A. Configuring signature-based antivirus to update every 30 minutes
- B. Enforcing S/MIME for email and automatically encrypting USB drives upon insertion.
- C. Implementing application execution in a sandbox for unknown software.
- D. Fuzzing new files for vulnerabilities if they are not digitally signed

Answer: C

NEW QUESTION 116

A company recently moved sensitive videos between on-premises. Company-owned websites. The company then learned the videos had been uploaded and shared to the internet. Which of the following would MOST likely allow the company to find the cause?

- A. Checksums
- B. Watermarks
- C. Oder of volatility
- D. A log analysis
- E. A right-to-audit clause

Answer: D

NEW QUESTION 119

Which of the following would be the BEST resource for a software developer who is looking to improve secure coding practices for web applications?

- A. OWASP
- B. Vulnerability scan results
- C. NIST CSF
- D. Third-party libraries

Answer: A

NEW QUESTION 124

A company was recently breached. Part of the company's new cybersecurity strategy is to centralize the logs from all security devices. Which of the following components forwards the logs to a central source?

- A. Log enrichment
- B. Log aggregation
- C. Log parser
- D. Log collector

Answer: D

NEW QUESTION 126

A security incident may have occurred on the desktop PC of an organization's Chief Executive Officer (CEO). A duplicate copy of the CEO's hard drive must be stored securely to ensure appropriate forensic processes and the chain of custody are followed. Which of the following should be performed to accomplish this task?

- A. Install a new hard drive in the CEO's PC, and then remove the old hard drive and place it in a tamper-evident bag
- B. Connect a write blocker to the hard drive. Then leveraging a forensic workstation, utilize the dd command in a live Linux environment to create a duplicate copy
- C. Remove the CEO's hard drive from the PC, connect to the forensic workstation, and copy all the contents onto a remote fileshare while the CEO watches
- D. Refrain from completing a forensic analysis of the CEO's hard drive until after the incident is confirmed, duplicating the hard drive at this stage could destroy evidence

Answer: D

NEW QUESTION 127

A security administrator suspects an employee has been emailing proprietary information to a competitor. Company policy requires the administrator to capture an exact copy of the employee's hard disk. Which of the following should the administrator use?

- A. dd
- B. chmod
- C. dnsenum
- D. logger

Answer: A

NEW QUESTION 130

A small business just recovered from a ransomware attack against its file servers by purchasing the decryption keys from the attackers. The issue was triggered by a phishing email and the IT administrator wants to ensure it does not happen again. Which of the following should the IT administrator do FIRST after recovery?

- A. Scan the NAS for residual or dormant malware and take new daily backups that are tested on a frequent basis
- B. Restrict administrative privileges and patch all systems and applications.
- C. Rebuild all workstations and install new antivirus software
- D. Implement application whitelisting and perform user application hardening

Answer: A

NEW QUESTION 133

A network engineer has been asked to investigate why several wireless barcode scanners and wireless computers in a warehouse have intermittent connectivity to the shipping server. The barcode scanners and computers are all on forklift trucks and move around the warehouse during their regular use. Which of the following should the engineer do to determine the issue? (Choose two.)

- A. Perform a site survey
- B. Deploy an FTK Imager
- C. Create a heat map
- D. Scan for rogue access points
- E. Upgrade the security protocols
- F. Install a captive portal

Answer: AC

NEW QUESTION 137

A technician needs to prevent data loss in a laboratory. The laboratory is not connected to any external networks. Which of the following methods would BEST prevent the exfiltration of data? (Select TWO).

- A. VPN
- B. Drive encryption
- C. Network firewall
- D. File level encryption
- E. USB blocker
- F. MFA

Answer: BE

NEW QUESTION 141

A financial institution would like to store its customer data as it could but still allow the data to be accessed and manipulated while encrypted. Doing so would prevent the cloud service provider from being able to decipher the data due to its sensitivity. The financial institution is not concerned about computational overheads and slow speeds. Which of the following cryptographic techniques would BEST meet the requirement?

- A. Asymmetric
- B. Symmetric
- C. Homeomorphic
- D. Ephemeral

Answer: B

NEW QUESTION 146

A company is setting up a web server on the Internet that will utilize both encrypted and unencrypted web-browsing protocols. A security engineer runs a port scan against the server from the Internet and sees the following output: Which of the following steps would be best for the security engineer to take NEXT?

- A. Allow DNS access from the internet.
- B. Block SMTP access from the Internet
- C. Block HTTPS access from the Internet
- D. Block SSH access from the Internet.

Answer: D

NEW QUESTION 147

After a ransomware attack a forensics company needs to review a cryptocurrency transaction between the victim and the attacker. Which of the following will the company MOST likely review to trace this transaction?

- A. The public ledger
- B. The NetFlow data
- C. A checksum
- D. The event log

Answer: A

NEW QUESTION 152

Which of the following will MOST likely cause machine learning and AI-enabled systems to operate with unintended consequences?

- A. Stored procedures
- B. Buffer overflows
- C. Data bias
- D. Code reuse

Answer: A

Explanation:

<https://lionbridge.ai/articles/7-types-of-data-bias-in-machine-learning/>

NEW QUESTION 157

After installing a Windows server, a cybersecurity administrator needs to harden it, following security best practices. Which of the following will achieve the administrator's goal? (Select TWO).

- A. Disabling guest accounts
- B. Disabling service accounts
- C. Enabling network sharing
- D. Disabling NetBIOS over TCP/IP
- E. Storing LAN manager hash values
- F. Enabling NTLM

Answer: AD

NEW QUESTION 158

A company has decided to move its operations to the cloud. It wants to utilize technology that will prevent users from downloading company applications for personal use, restrict data that is uploaded, and have visibility into which applications are being used across the company. Which of the following solutions will BEST meet these requirements?

- A. An NGFW
- B. A CASB

- C. Application whitelisting
- D. An NG-SWG

Answer: B

NEW QUESTION 160

A security analyst is reviewing logs on a server and observes the following output:

Which of the following is the security analyst observing?

- A. A rainbow table attack
- B. A password-spraying attack
- C. A dictionary attack
- D. A keylogger attack

Answer: C

NEW QUESTION 162

A security analyst is reviewing a penetration-testing report from a third-party contractor. The penetration testers used the organization's new API to bypass a driver to perform privilege escalation on the organization's web servers. Upon looking at the API, the security analyst realizes the particular API call was to a legacy system running an outdated OS. Which of the following is the MOST likely attack type?

- A. Request forgery
- B. Session replay
- C. DLL injection
- D. Shimming

Answer: A

NEW QUESTION 167

An external forensics investigator has been hired to investigate a data breach at a large enterprise with numerous assets. It is known that the breach started in the DMZ and moved to the sensitive information, generating multiple logs as the attacker traversed through the network. Which of the following will BEST assist with this investigation?

- A. Perform a vulnerability scan to identify the weak spots.
- B. Use a packet analyzer to investigate the NetFlow traffic.
- C. Check the SIEM to review the correlated logs.
- D. Require access to the routers to view current sessions.

Answer: C

NEW QUESTION 168

After reading a security bulletin, a network security manager is concerned that a malicious actor may have breached the network using the same software flaw. The exploit code is publicly available and has been reported as being used against other industries in the same vertical. Which of the following should the network security manager consult FIRST to determine a priority list for forensic review?

- A. The vulnerability scan output
- B. The IDS logs
- C. The full packet capture data
- D. The SIEM alerts

Answer: A

NEW QUESTION 173

A security analyst needs to generate a server certificate to be used for 802.1X and secure RDP connections. The analyst is unsure what is required to perform the task and solicits help from a senior colleague. Which of the following is the FIRST step the senior colleague will most likely tell the analyst to perform to accomplish this task?

- A. Create an OCSP
- B. Generate a CSR
- C. Create a CRL
- D. Generate a .pfx file

Answer: B

NEW QUESTION 176

A Chief Security Office's (CSO's) key priorities are to improve preparation, response, and recovery practices to minimize system downtime and enhance organizational resilience to ransomware attacks. Which of the following would BEST meet the CSO's objectives?

- A. Use email-filtering software and centralized account management, patch high-risk systems, and restrict administration privileges on fileshares.
- B. Purchase cyber insurance from a reputable provider to reduce expenses during an incident.
- C. Invest in end-user awareness training to change the long-term culture and behavior of staff and executives, reducing the organization's susceptibility to phishing attacks.
- D. Implement application whitelisting and centralized event-log management, and perform regular testing and validation of full backups.

Answer: D

NEW QUESTION 180

An attacker has successfully exfiltrated several non-salted password hashes from an online system. Given the logs below:

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

NEW QUESTION 182

A network administrator at a large organization is reviewing methods to improve the security of the wired LAN. Any security improvement must be centrally managed and allow corporate-owned devices to have access to the intranet but limit others to Internet access only. Which of the following should the administrator recommend?

- A. 802.1X utilizing the current PKI infrastructure
- B. SSO to authenticate corporate users
- C. MAC address filtering with ACLs on the router
- D. PAM for user account management

Answer: A

NEW QUESTION 184

A company has drafted an insider-threat policy that prohibits the use of external storage devices. Which of the following would BEST protect the company from data exfiltration via removable media?

- A. Monitoring large data transfer transactions in the firewall logs
- B. Developing mandatory training to educate employees about the removable media policy
- C. Implementing a group policy to block user access to system files
- D. Blocking removable-media devices and write capabilities using a host-based security tool

Answer: D

NEW QUESTION 186

A network administrator has been asked to install an IDS to improve the security posture of an organization. Which of the following control types is an IDS?

- A. Corrective
- B. Physical
- C. Detective
- D. Administrative

Answer: C

NEW QUESTION 187

In which of the following common use cases would steganography be employed?

- A. Obfuscation
- B. Integrity
- C. Non-repudiation
- D. Blockchain

Answer: A

NEW QUESTION 189

A user is concerned that a web application will not be able to handle unexpected or random input without crashing. Which of the following BEST describes the type of testing the user should perform?

- A. Code signing
- B. Fuzzing
- C. Manual code review
- D. Dynamic code analysis

Answer: D

NEW QUESTION 192

The process of passively gathering information prior to launching a cyberattack is called:

- A. tailgating
- B. reconnaissance
- C. pharming
- D. prepending

Answer: B

NEW QUESTION 197

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.

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

NEW QUESTION 202

A financial organization has adopted a new secure, encrypted document-sharing application to help with its customer loan process. Some important PII needs to be shared across this new platform, but it is getting blocked by the DLP systems. Which of the following actions will BEST allow the PII to be shared with the secure application without compromising the organization's security posture?

- A. Configure the DLP policies to allow all PII
- B. Configure the firewall to allow all ports that are used by this application
- C. Configure the antivirus software to allow the application
- D. Configure the DLP policies to whitelist this application with the specific PII
- E. Configure the application to encrypt the PII

Answer: D

NEW QUESTION 204

A systems administrator needs to install the same X.509 certificate on multiple servers. Which of the following should the administrator use?

- A. Key escrow
- B. A self-signed certificate
- C. Certificate chaining
- D. An extended validation certificate

Answer: B

NEW QUESTION 208

A security analyst discovers several .jpg photos from a cellular phone during a forensics investigation involving a compromised system. The analyst runs a forensics tool to gather file metadata. Which of the following would be part of the images if all the metadata is still intact?

- A. The GPS location
- B. When the file was deleted
- C. The total number of print jobs
- D. The number of copies made

Answer: A

NEW QUESTION 212

A security audit has revealed that a process control terminal is vulnerable to malicious users installing and executing software on the system. The terminal is beyond end-of-life support and cannot be upgraded, so it is placed on a projected network segment. Which of the following would be MOST effective to implement to further mitigate the reported vulnerability?

- A. DNS sinkholding
- B. DLP rules on the terminal
- C. An IP blacklist
- D. Application whitelisting

Answer: D

NEW QUESTION 213

Several large orders of merchandise were recently purchased on an e-commerce company's website. The totals for each of the transactions were negative values, resulting in credits on the customers' accounts. Which of the following should be implemented to prevent similar situations in the future?

- A. Ensure input validation is in place to prevent the use of invalid characters and values.
- B. Calculate all possible values to be added together and ensure the use of the proper integer in the code.
- C. Configure the web application firewall to look for and block session replay attacks.
- D. Make sure transactions that are submitted within very short time periods are prevented from being processed.

Answer: A

NEW QUESTION 218

Which of the following represents a biometric FRR?

- A. Authorized users being denied access
- B. Users failing to enter the correct PIN
- C. The denied and authorized numbers being equal
- D. The number of unauthorized users being granted access

Answer: A

NEW QUESTION 219

An attacker is trying to gain access by installing malware on a website that is known to be visited by the target victims. Which of the following is the attacker MOST likely attempting?

- A. A spear-phishing attack
- B. A watering-hole attack
- C. Typo squatting
- D. A phishing attack

Answer: B

NEW QUESTION 224

Which of the following cryptographic concepts would a security engineer utilize while implementing non-repudiation? (Select TWO)

- A. Block cipher
- B. Hashing
- C. Private key
- D. Perfect forward secrecy
- E. Salting
- F. Symmetric keys

Answer: BC

NEW QUESTION 227

An auditor is performing an assessment of a security appliance with an embedded OS that was vulnerable during the last two assessments. Which of the following BEST explains the appliance's vulnerable state?

- A. The system was configured with weak default security settings.
- B. The device uses weak encryption ciphers.
- C. The vendor has not supplied a patch for the appliance.
- D. The appliance requires administrative credentials for the assessment.

Answer: C

NEW QUESTION 231

A user recently entered a username and password into a recruiting application website that had been forged to look like the legitimate site. Upon investigation, a security analyst identifies the following:

- The legitimate website's IP address is 10.1.1.20 and eRecruit local resolves to the IP
- The forged website's IP address appears to be 10.2.12.99, based on NetFlow records
- A record at the organization's DNS servers shows the website correctly resolves to the legitimate IP
- DNS query logs show one of the three DNS servers returned a result of 10.2.12.99 (cached) at the approximate time of the suspected compromise.

Which of the following MOST likely occurred?

- A. A reverse proxy was used to redirect network traffic
- B. An SSL strip MITM attack was performed
- C. An attacker temporarily pawned a name server
- D. An ARP poisoning attack was successfully executed

Answer: B

NEW QUESTION 234

A company's bank has reported that multiple corporate credit cards have been stolen over the past several weeks. The bank has provided the names of the affected cardholders to the company's forensics team to assist in the cyber-incident investigation.

An incident responder learns the following information:

The timeline of stolen card numbers corresponds closely with affected users making Internet-based purchases from diverse websites via enterprise desktop PCs. All purchase connections were encrypted, and the company uses an SSL inspection proxy for the inspection of encrypted traffic of the hardwired network. Purchases made with corporate cards over the corporate guest WiFi network, where no SSL inspection occurs, were unaffected.

Which of the following is the MOST likely root cause?

- A. HTTPS sessions are being downgraded to insecure cipher suites
- B. The SSL inspection proxy is feeding events to a compromised SIEM
- C. The payment providers are insecurely processing credit card charges
- D. The adversary has not yet established a presence on the guest WiFi network

Answer: C

NEW QUESTION 237

Which of the following BEST explains the difference between a data owner and a data custodian?

- A. The data owner is responsible for adhering to the rules for using the data, while the data custodian is responsible for determining the corporate governance regarding the data
- B. The data owner is responsible for determining how the data may be used, while the data custodian is responsible for implementing the protection to the data
- C. The data owner is responsible for controlling the data, while the data custodian is responsible for maintaining the chain of custody when handling the data
- D. The data owner grants the technical permissions for data access, while the data custodian maintains the database access controls to the data

Answer: B

NEW QUESTION 240

Which of the following is the purpose of a risk register?

- A. To define the level of risk using probability and likelihood
- B. To register the risk with the required regulatory agencies
- C. To identify the risk, the risk owner, and the risk measures
- D. To formally log the type of risk mitigation strategy the organization is using

Answer: C

NEW QUESTION 243

An attacker is exploiting a vulnerability that does not have a patch available. Which of the following is the attacker exploiting?

- A. Zero-day
- B. Default permissions
- C. Weak encryption
- D. Unsecure root accounts

Answer: A

NEW QUESTION 244

A network manager is concerned that business may be negatively impacted if the firewall in its datacenter goes offline. The manager would like to implement a

high availability pair to:

- A. decrease the mean time between failures
- B. remove the single point of failure
- C. cut down the mean time to repair
- D. reduce the recovery time objective

Answer: B

NEW QUESTION 249

A Chief Information Security Officer (CISO) is concerned about the organization's ability to continue business operation in the event of a prolonged DDoS attack on its local datacenter that consumes database resources. Which of the following will the CISO MOST likely recommend to mitigate this risk?

- A. Upgrade the bandwidth available into the datacenter
- B. Implement a hot-site failover location
- C. Switch to a complete SaaS offering to customers
- D. Implement a challenge response test on all end-user queries

Answer: B

NEW QUESTION 252

A security researcher is attempting to gather data on the widespread use of a Zero-day exploit. Which of the following will the researcher MOST likely use to capture this data?

- A. A DNS sinkhole
- B. A honeypot
- C. A vulnerability scan
- D. cvss

Answer: B

NEW QUESTION 257

An organization is concerned that its hosted web servers are not running the most updated version of the software. Which of the following would work BEST to help identify potential vulnerabilities?

- A. `Hping3 -s comptia, org -p 80`
- B. `Nc -l -v comptia, org -p 80`
- C. `nmap comptia, org -p 80 -aV`
- D. `nslookup -port=80 comptia.org`

Answer: C

NEW QUESTION 259

The Chief Security Officer (CSO) at a major hospital wants to implement SSO to help improve the environment patient data, particularly at shared terminals. The Chief Risk Officer (CRO) is concerned that training and guidance have been provided to frontline staff, and a risk analysis has not been performed. Which of the following is the MOST likely cause of the CRO's concerns?

- A. SSO would simplify username and password management, making it easier for hackers to guess accounts.
- B. SSO would reduce password fatigue, but staff would still need to remember more complex passwords.
- C. SSO would reduce the password complexity for frontline staff.
- D. SSO would reduce the resilience and availability of system if the provider goes offline.

Answer: D

NEW QUESTION 261

An organization is developing a plan in the event of a complete loss of critical systems and data. Which of the following plans is the organization MOST likely developing?

- A. Incident response
- B. Communications
- C. Disaster recovery
- D. Data retention

Answer: C

NEW QUESTION 263

While checking logs, a security engineer notices a number of end users suddenly downloading files with the `.tar.gz` extension. Closer examination of the files reveals they are PE32 files. The end users state they did not initiate any of the downloads. Further investigation reveals the end users all clicked on an external email containing an infected MHT file with an href link a week prior. Which of the following is MOST likely occurring?

- A. A RAT was installed and is transferring additional exploit tools.
- B. The workstations are beaconing to a command-and-control server.
- C. A logic bomb was executed and is responsible for the data transfers.
- D. A fileless virus is spreading in the local network environment.

Answer: A

NEW QUESTION 264

In the middle of a cybersecurity, a security engineer removes the infected devices from the network and lock down all compromised accounts. In which of the following incident response phases is the security engineer currently operating?

- A. Identification
- B. Preparation
- C. Eradiction
- D. Recovery
- E. Containment

Answer: E

NEW QUESTION 267

Which of the following terms should be included in a contract to help a company monitor the ongoing security maturity of a new vendor?

- A. A right-to-audit clause allowing for annual security audits
- B. Requirements for event logs to be kept for a minimum of 30 days
- C. Integration of threat intelligence in the company's AV
- D. A data-breach clause requiring disclosure of significant data loss

Answer: A

NEW QUESTION 271

A recent audit uncovered a key finding regarding the use of a specific encryption standard in a web application that is used to communicate with business customers. Due to the technical limitations of its customers the company is unable to upgrade the encryption standard. Which of the following types of controls should be used to reduce the risk created by this scenario?

- A. Physical
- B. Detective
- C. Preventive
- D. Compensating

Answer: D

NEW QUESTION 272

The following is an administrative control that would be MOST effective to reduce the occurrence of malware execution?

- A. Security awareness training
- B. Frequency of NIDS updates
- C. Change control procedures
- D. EDR reporting cycle

Answer: A

NEW QUESTION 276

An organization's finance department is implementing a policy to protect against collusion. Which of the following control types and corresponding procedures should the organization implement to fulfill this policy's requirement? (Select TWO).

- A. Corrective
- B. Deterrent
- C. Preventive
- D. Mandatory vacations
- E. Job rotation
- F. Separation of duties

Answer: DE

NEW QUESTION 279

On which of the following is the live acquisition of data for forensic analysis MOST dependent? (Choose two.)

- A. Data accessibility
- B. Legal hold
- C. Cryptographic or hash algorithm
- D. Data retention legislation
- E. Value and volatility of data
- F. Right-to-audit clauses

Answer: EF

NEW QUESTION 283

An analyst has determined that a server was not patched and an external actor exfiltrated data on port 139. Which of the following sources should the analyst review to BEST ascertain how the Incident could have been prevented?

- A. The vulnerability scan output
- B. The security logs
- C. The baseline report
- D. The correlation of events

Answer: A

NEW QUESTION 287

An organization has expanded its operations by opening a remote office. The new office is fully furnished with office resources to support up to 50 employees working on any given day. Which of the following VPN solutions would BEST support the new office?

- A. Always On
- B. Remote access
- C. Site-to-site
- D. Full tunnel

Answer: C

NEW QUESTION 292

A network administrator would like to configure a site-to-site VPN utilizing IPSec. The administrator wants the tunnel to be established with data integrity encryption, authentication and anti-replay functions. Which of the following should the administrator use when configuring the VPN?

- A. AH
- B. EDR
- C. ESP
- D. DNSSEC

Answer: C

NEW QUESTION 296

A security analyst is logged into a Windows file server and needs to see who is accessing files and from which computers. Which of the following tools should the analyst use?

- A. netstat
- B. net share
- C. netcat
- D. nbtstat
- E. net session

Answer: A

NEW QUESTION 297

Which of the following disaster recovery tests is the LEAST time-consuming for the disaster recovery team?

- A. Tabletop
- B. Parallel
- C. Full interruption
- D. Simulation

Answer: A

NEW QUESTION 302

A security engineer obtained the following output from a threat intelligence source that recently performed an attack on the company's server:

Which of the following BEST describes this kind of attack?

- A. Directory traversal
- B. SQL injection
- C. API
- D. Request forgery

Answer: D

NEW QUESTION 303

A company just implemented a new telework policy that allows employees to use personal devices for official email and file sharing while working from home. Some of the requirements are:

* Employees must provide an alternate work location (i.e., a home address)

* Employees must install software on the device that will prevent the loss of proprietary data but will not restrict any other software from being installed.

Which of the following BEST describes the MDM options the company is using?

- A. Geofencing, content management, remote wipe, containerization, and storage segmentation
- B. Content management, remote wipe, geolocation, context-aware authentication, and containerization
- C. Application management, remote wipe, geofencing, context-aware authentication, and containerization
- D. Remote wipe, geolocation, screen locks, storage segmentation, and full-device encryption

Answer: D

NEW QUESTION 305

Which of the following policies would help an organization identify and mitigate potential single points of failure in the company's IT/security operations?

- A. Least privilege
- B. Awareness training
- C. Separation of duties
- D. Mandatory vacation

Answer: C

NEW QUESTION 306

Which of the following is the BEST reason to maintain a functional and effective asset management policy that aids in ensuring the security of an organization?

- A. To provide data to quantify risk based on the organization's systems.
- B. To keep all software and hardware fully patched for known vulnerabilities
- C. To only allow approved, organization-owned devices onto the business network
- D. To standardize by selecting one laptop model for all users in the organization

Answer: A

NEW QUESTION 310

When used at the design stage, which of the following improves the efficiency, accuracy, and speed of a database?

- A. Tokenization
- B. Data masking
- C. Normalization
- D. Obfuscation

Answer: C

NEW QUESTION 313

An end user reports a computer has been acting slower than normal for a few weeks. During an investigation, an analyst determines the system is sending the user's email address and a ten-digit number to an IP address once a day. The only recent log entry regarding the user's computer is the following:

Which of the following is the MOST likely cause of the issue?

- A. The end user purchased and installed 2 PUP from a web browser.
- B. A bot on the computer is brute forcing passwords against a website.
- C. A hacker is attempting to exfiltrate sensitive data.
- D. Ransomware is communicating with a command-and-control server.

Answer: A

NEW QUESTION 315

A security engineer needs to enhance MFA access to sensitive areas in a building. A key card and fingerprint scan are already in use. Which of the following would add another factor of authentication?

- A. Hard token
- B. Retina scan
- C. SMS text
- D. Keypad PIN

Answer: B

NEW QUESTION 317

Which of the following refers to applications and systems that are used within an organization without consent or approval?

- A. Shadow IT
- B. OSINT
- C. Dark web
- D. Insider threats

Answer: A

NEW QUESTION 322

A worldwide manufacturing company has been experiencing email account compromise. In one incident, a user logged in from the corporate office in France, but then seconds later, the same user account attempted a login from Brazil. Which of the following account policies would BEST prevent this type of attack?

- A. Network location
- B. Impossible travel time
- C. Geolocation
- D. Geofencing

Answer: D

NEW QUESTION 324

A SOC is implementing an insider-threat-detection program. The primary concern is that users may be accessing confidential data without authorization. Which of the following should be deployed to detect a potential insider threat?

- A. A honeyfile
- B. ADMZ
- C. DLP
- D. File integrity monitoring

Answer: A

NEW QUESTION 328

A security engineer needs to implement an MDM solution that complies with the corporate mobile device policy. The policy states that in order for mobile users to access corporate resources on their devices the following requirements must be met:

- Mobile device OSs must be patched up to the latest release
- A screen lock must be enabled (passcode or biometric)
- Corporate data must be removed if the device is reported lost or stolen

Which of the following controls should the security engineer configure? (Select TWO)

- A. Containerization
- B. Storage segmentation
- C. Posturing
- D. Remote wipe
- E. Full-device encryption
- F. Geofencing

Answer: DE

NEW QUESTION 332

Which of the following is a team of people dedicated testing the effectiveness of organizational security programs by emulating the techniques of potential attackers?

- A. Red team
- B. White team
- C. Blue team
- D. Purple team

Answer: A

NEW QUESTION 333

A company is designing the layout of a new datacenter so it will have an optimal environmental temperature Which of the following must be included? (Select TWO)

- A. An air gap
- B. A cold aisle
- C. Removable doors
- D. A hot aisle
- E. An IoT thermostat
- F. A humidity monitor

Answer: EF

NEW QUESTION 337

An organization plans to transition the intrusion detection and prevention techniques on a critical subnet to an anomaly-based system. Which of the following does the organization need to determine for this to be successful?

- A. The baseline
- B. The endpoint configurations
- C. The adversary behavior profiles
- D. The IPS signatures

Answer: C

NEW QUESTION 340

An organization blocks user access to command-line interpreters but hackers still managed to invoke the interpreters using native administrative tools Which of the following should the security team do to prevent this from Happening in the future?

- A. Implement HIPS to block Inbound and outbound SMB ports 139 and 445.
- B. Trigger a SIEM alert whenever the native OS tools are executed by the user
- C. Disable the built-in OS utilities as long as they are not needed for functionality.
- D. Configure the AV to quarantine the native OS tools whenever they are executed

Answer: C

NEW QUESTION 341

An organization is concerned that its hosted web servers are not running the most updated version of the software. Which of the following would work BEST to help identify potential vulnerabilities?

- A. `hping3 -S comsptia.org -p 80`
- B. `nc -1 -v comptia.org -p 80`
- C. `nmap comptia.org -p 80 -sV`

D. nslookup -port=80 comptia.org

Answer: C

NEW QUESTION 345

A remote user recently took a two-week vacation abroad and brought along a corporate-owned laptop. Upon returning to work, the user has been unable to connect the laptop to the VPN. Which of the following is the MOST likely reason for the user's inability to connect the laptop to the VPN?

- A. Due to foreign travel, the user's laptop was isolated from the network.
- B. The user's laptop was quarantined because it missed the latest path update.
- C. The VPN client was blacklisted.
- D. The user's account was put on a legal hold.

Answer: A

NEW QUESTION 346

A security analyst needs to complete an assessment. The analyst is logged into a server and must use native tools to map services running on it to the server's listening ports. Which of the following tools can BEST accomplish this task?

- A. Netcat
- B. Netstat
- C. Nmap
- D. Nessus

Answer: B

NEW QUESTION 351

Which of the following will provide the BEST physical security countermeasures to stop intruders? (Select TWO.)

- A. Alarms
- B. Signage
- C. Lighting
- D. Mantraps
- E. Fencing
- F. Sensors

Answer: DE

NEW QUESTION 352

An analyst needs to set up a method for securely transferring files between systems. One of the requirements is to authenticate the IP header and the payload. Which of the following services would BEST meet the criteria?

- A. TLS
- B. PFS
- C. ESP
- D. AH

Answer: A

NEW QUESTION 355

The new Chief Executive Officer (CEO) of a large company has announced a partnership with a vendor that will provide multiple collaboration applications to make remote work easier. The company has a geographically dispersed staff located in numerous remote offices in different countries. The company's IT administrators are concerned about network traffic and load if all users simultaneously download the application. Which of the following would work BEST to allow each geographic region to download the software without negatively impacting the corporate network?

- A. Update the host IDS rules.
- B. Enable application whitelisting.
- C. Modify the corporate firewall rules.
- D. Deploy all applications simultaneously.

Answer: B

NEW QUESTION 356

A bank detects fraudulent activity on user's account. The user confirms transactions completed yesterday on the bank's website at <https://www.company.com>. A security analyst then examines the user's

Internet usage logs and observes the following output: date; username; url;destinationport; responsecode

2020-03-01; userann; http://www.company.org/;80;302; userann: http://www.company.org/secure_login/;80;200

2020-03-01; userann: http://www.company.org/dashboard/;80;200

Which of the following has MOST likely occurred?

- A. Replay attack
- B. SQL injection
- C. SSL stripping
- D. Race conditions

Answer: A

NEW QUESTION 360

The IT department's on-site developer has been with the team for many years. Each time an application is released, the security team is able to identify multiple vulnerabilities. Which of the following would BEST help the team ensure the application is ready to be released to production?

- A. Limit the use of third-party libraries.
- B. Prevent data exposure queries.
- C. Obfuscate the source code.
- D. Submit the application to QA before releasing it.

Answer: D

NEW QUESTION 363

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