

1 1. A Chief Executive Officer (CEO) is steering company towards cloud computing. The CEO  
is requesting a federated sign-on method to have users sign into the sales application.  
Which of the following methods will be effective for this purpose?

2 A. SAML  
3 B. RADIUS  
4 C. Kerberos  
5 D. LDAP

6

7 2. An administrator is configuring a new Linux web server where each user account is  
confined to a chroot jail. Which of the following describes this type of control?

8 A. SysV  
9 B. Sandbox  
10 C. Zone  
11 D. Segmentation

12

13 3. Recently clients are stating they can no longer access a secure banking site's  
webpage. In reviewing the clients' web browser settings, the certificate chain is  
showing the following:

14  
15 Certificate Chain:  
16 X Digi Cert  
17 Digi Cert High assurance C3  
18 \* banksite.com  
19

20 Certificate Store:  
21 Digi Cert Others Certificate Store  
22 Digi Cert High assurance C3 Others Certificate Store  
23

24 Based on the information provided, which of the following is the problem when  
connecting to the website?

25 A. The certificate signature request was invalid  
26 B. Key escrow is failing for the certificate authority  
27 C. The certificate authority has revoked the certificate  
28 D. The clients do not trust the certificate authority  
29

30 4. A company often processes sensitive data for the government. The company also  
processes a large amount of commercial work and as such is often providing tours to  
potential customers that take them into various workspaces. Which of the following  
security methods can provide protection against tour participants viewing sensitive  
information at minimal cost?

31 A. Strong passwords  
32 B. Screen protectors  
33 C. Clean-desk policy  
34 D. Mantraps  
35

36 5. Joe is a helpdesk specialist. During a routine audit, a company discovered that his  
credentials were used while he was on vacation. The investigation further confirmed  
that Joe still has his badge and it was last used to exit the facility. Which of the  
following access control methods is MOST appropriate for preventing such occurrences in  
the future?

37 A. Access control where the credentials cannot be used except when the associated badge  
is in the facility  
38 B. Access control where system administrators may limit which users can access their  
systems  
39 C. Access control where employee's access permissions is based on the job title  
40 D. Access control system where badges are only issued to cleared personnel  
41

42 6. A security architect is designing an enterprise solution for the sales force of a  
corporation which handles sensitive customer data. The solution must allow users to  
work from remote offices and support traveling users. Which of the following is the  
MOST appropriate control for the architect to focus onto ensure confidentiality of data  
stored on laptops?

43 A. Full-disk encryption  
44 B. Digital sign  
45 C. Federated identity management  
46 D. Cable locks  
47

48 7. A security administrator needs a method to ensure that only employees can get onto  
the internal network when plugging into a network switch. Which of the following BEST

meets that requirement?

49 A. NAC  
50 B. UTM  
51 C. DMZ  
52 D. VPN  
53

54 8. Having adequate lighting on the outside of a building is an example of which of the following security controls?

55 A. Deterrent  
56 B. Compensating  
57 C. Detective  
58 D. Preventative  
59

60 9. During a recent audit, it was discovered that several user accounts belonging to former employees were still active and had valid VPN permissions. Which of the following would help reduce the amount of risk the organization incurs in this situation in the future?

61 A. Time-of-day restrictions  
62 B. User access reviews  
63 C. Group-based privileges  
64 D. Change management policies  
65

66 10. An organization is working with a cloud services provider to transition critical business applications to a hybrid cloud environment. The organization retains sensitive customer data and wants to ensure the provider has sufficient administrative and logical controls in place to protect its data. In which of the following documents would this concern MOST likely be addressed?

67 A. Service level agreement  
68 B. Interconnection security agreement  
69 C. Non-disclosure agreement  
70 D. Business process analysis  
71

72 11. A security administrator wants to implement a company-wide policy to empower data owners to manage and enforce access control rules on various resources. Which of the following should be implemented?

73 A. Mandatory access control  
74 B. Discretionary access control  
75 C. Role based access control  
76 D. Rule-based access control  
77

78 12. Which of the following BEST describes an attack where communications between two parties are intercepted and forwarded to each party with neither party being aware of the interception and potential modification to the communications?

79 A. Spear phishing  
80 B. Man-in-the-middle  
81 C. URL hijacking  
82 D. Transitive access  
83

84 13. A security administrator wishes to implement a secure a method of file transfer when communicating with outside organizations. Which of the following protocols would BEST facilitate secure file transfers? (Choose two.)

85 A. SCP  
86 B. TFTP  
87 C. SNMP  
88 D. FTP  
89 E. SMTP  
90 F. FTPS  
91

92 14. A technician needs to implement a system which will properly authenticate users by their username and password only when the users are logging in from a computer in the office building. Any attempt to authenticate from a location other than the office building should be rejected. Which of the following MUST the technician implement?

93 A. Dual factor authentication  
94 B. Transitive authentication  
95 C. Single factor authentication  
96 D. Biometric authentication  
97

98 15. After correctly configuring a new wireless enabled thermostat to control the temperature of the company's meeting room, Joe, a network administrator determines that

the thermostat is not connecting to the internet-based control system. Joe verifies that the thermostat received the expected network parameters and it is associated with the AP. Additionally, the other wireless mobile devices connected to the same wireless network are functioning properly. The network administrator verified that the thermostat works when tested at his residence. Which of the following is the MOST likely reason the thermostat is not connecting to the internet?

99 A. The company implements a captive portal  
100 B. The thermostat is using the inencryption algorithm  
101 C. the WPA2 shared likely is incorrect  
102 D. The company's DHCP server scope is full  
103

104 16. A switch is set up to allow only 2 simultaneous MAC addresses per switch port. An administrator is reviewing a log and determines that a switch port has been deactivated in a conference room after it detected 3 or more MAC addresses on the same port. Which of the following reasons could have caused this port to be disabled?

105 A. A pc had a NIC replaced and reconnected to the switch  
106 B. An ip telephone has been plugged in  
107 C. A rouge access point was plugged in  
108 D. An arp attack was launched from a pc on this port  
109

110 17. Malware that changes its binary pattern on specific dates at specific times to avoid detection is known as a (n):

111 A. armored virus  
112 B. logic bomb  
113 C. polymorphic virus  
114 D. Trojan  
115

116 18. A company is planning to encrypt the files in several sensitive directories of a file server with a symmetric key. Which of the following could be used?

117 A. RSA  
118 B. TwoFish  
119 C. Diffie-Helman  
120 D. NTLMv2  
121 E. RIPEMD  
122

123 19. Which of the following is a document that contains detailed information about actions that include how something will be done, when the actions will be performed, and penalties for failure?

124 A. MOU  
125 B. ISA  
126 C. BPA  
127 D. SLA  
128

129 20. Which of the following are MOST susceptible to birthday attacks?

130 A. Hashed passwords  
131 B. Digital certificates  
132 C. Encryption passwords  
133 D. One time passwords  
134

135 21. Joe, a computer forensic technician, responds to an active compromise of a database server. Joe first collects information in memory, then collects network traffic and finally conducts an image of the hard drive. Which of the following procedures did Joe follow?

136 A. Order of volatility  
137 B. Chain of custody  
138 C. Recovery procedure  
139 D. Incident isolation  
140

141 22. A system administrator wants to implement an internal communication system that will allow employees to send encrypted messages to each other. The system must also support non- repudiation. Which of the following implements all these requirements?

142 A. Bcrypt  
143 B. Blowfish  
144 C. PGP  
145 D. SHA  
146

147 323. Given the log output:  
148 Max 15 00:15:23.431 CRT: #SEC\_LOGIN-5-LOGIN\_SUCCESS: Login Success [user: msmith]  
[Source: 10.0.12.45]

150

151 Which of the following should the network administrator do to protect data security?

152 A. Configure port security for logons

153 B. Disable telnet and enable SSH

154 C. Configure an AAA server

155 D. Disable password and enable RSA authentication

156

157 24. The firewall administrator is adding a new certificate for the company's remote access solution. The solution requires that the uploaded file contain the entire certificate chain for the certificate to load properly. The administrator loads the company certificate and the root CA certificate into the file. The file upload is rejected. Which of the following is required to complete the certificate chain?

158 A. Certificate revocation list

159 B. Intermediate authority

160 C. Recovery agent

161 D. Root of trust

162

163 25. The Chief Executive Officer (CEO) of a major defense contracting company is traveling overseas for a conference. The CEO will be taking a laptop. Which of the following should the security administrator implement to ensure confidentiality of the data if the laptop were to be stolen or lost during the trip?

164 A. Remote wipe

165 B. Full device encryption

166 C. BIOS password

167 D. GPS tracking

168

169 26. In an effort to reduce data storage requirements, a company devices to hash every file and eliminate duplicates. The data processing routines are time sensitive so the hashing algorithm is fast and supported on a wide range of systems. Which of the following algorithms is BEST suited for this purpose?

170 A. MD5

171 B. SHA

172 C. RIPEMD

173 D. AES

174

175 27. A new security policy in an organization requires that all file transfers within the organization be completed using applications that provide secure transfer. Currently, the organization uses FTP and HTTP to transfer files. Which of the following should the organization implement in order to be compliant with the new policy?

176 A. Replace FTP with SFTP and replace HTTP with TLS

177 B. Replace FTP with FTPS and replaces HTTP with TFTP

178 C. Replace FTP with SFTP and replace HTTP with Telnet

179 D. Replace FTP with FTPS and replaces HTTP with IPSec

180

181 28. A product manager is concerned about continuing operations at a facility located in a region undergoing significant political unrest. After consulting with senior management, a decision is made to suspend operations at the facility until the situation stabilizes. Which of the following risk management strategies BEST describes management's response?

182 A. Deterrence

183 B. Mitigation

184 C. Avoidance

185 D. Acceptance

186

187 29. Joe notices there are several user accounts on the local network generating spam with embedded malicious code. Which of the following technical control should Joe put in place to BEST reduce these incidents?

188 A. Account lockout

189 B. Group Based Privileges

190 C. Least privilege

191 D. Password complexity

192

193 30. Two users need to securely share encrypted files via email. Company policy prohibits users from sharing credentials or exchanging encryption keys. Which of the following can be implemented to enable users to share encrypted data while abiding by company policies?

194 A. Key escrow

195 B. Digital signatures

196 C. PKI  
197 D. Hashing  
198  
199 31. An information system owner has supplied a new requirement to the development team that calls for increased non-repudiation within the application. After undergoing several audits, the owner determined that current levels of non-repudiation were insufficient. Which of the following capabilities would be MOST appropriate to consider implementing is response to the new requirement?  
200 A. Transitive trust  
201 B. Symmetric encryption  
202 C. Two-factor authentication  
203 D. Digital signatures  
204 E. One-time passwords  
205  
206 32. Joe a website administrator believes he owns the intellectual property for a company invention and has been replacing image files on the company's public facing website in the DMZ. Joe is using steganography to hide stolen data. Which of the following controls can be implemented to mitigate this type of inside threat?  
207 A. Digital signatures  
208 B. File integrity monitoring  
209 C. Access controls  
210 D. Change management  
211 E. Stateful inspection firewall  
212  
213 33. The process of applying a salt and cryptographic hash to a password then repeating the process many times is known as which of the following?  
214 A. Collision resistance  
215 B. Rainbow table  
216 C. Key stretching  
217 D. Brute force attack  
218  
219 34. Which of the following is commonly used for federated identity management across multiple organizations?  
220 A. SAML  
221 B. Active Directory  
222 C. Kerberos  
223 D. LDAP  
224  
225 35. A security administrator has been asked to implement a VPN that will support remote access over IPSEC. Which of the following is an encryption algorithm that would meet this requirement?  
226 A. MD5  
227 B. AES  
228 C. UDP  
229 D. PKI  
230  
231 36. A security administrator is evaluating three different services: radius, diameter, and Kerberos. Which of the following is a feature that is UNIQUE to Kerberos?  
232 A. It provides authentication services  
233 B. It uses tickets to identify authenticated users  
234 C. It provides single sign-on capability  
235 D. It uses XML for cross-platform interoperability  
236  
237 37. Which of the following can affect electrostatic discharge in a network operations center?  
238 A. Fire suppression  
239 B. Environmental monitoring  
240 C. Proximity card access  
241 D. Humidity controls  
242  
243 38. A malicious attacker has intercepted HTTP traffic and inserted an ASCII line that sets the referrer URL. Which of the following is the attacker most likely utilizing?  
244 A. Header manipulation  
245 B. Cookie hijacking  
246 C. Cross-site scripting  
247 D. Xml injection  
248  
249 39. A company would like to prevent the use of a known set of applications from being used on company computers. Which of the following should the security administrator

implement?

250 A. Whitelisting  
251 B. Anti-malware  
252 C. Application hardening  
253 D. Blacklisting  
254 E. Disable removable media  
255

256 40. A new hire wants to use a personally owned phone to access company resources. The new hire expresses concern about what happens to the data on the phone when they leave the company. Which of the following portions of the company's mobile device management configuration would allow the company data to be removed from the device without touching the new hire's data?

257 A. Asset control  
258 B. Device access control  
259 C. Storage lock out  
260 D. Storage segmentation  
261

262 41. A consultant has been tasked to assess a client's network. The client reports frequent network outages. Upon viewing the spanning tree configuration, the consultant notices that an old and low performing edge switch on the network has been elected to be the root bridge. Which of the following explains this scenario?

263 A. The switch also serves as the DHCP server  
264 B. The switch has the lowest MAC address  
265 C. The switch has spanning tree loop protection enabled  
266 D. The switch has the fastest uplink port  
267

268 42. An organization is trying to decide which type of access control is most appropriate for the network. The current access control approach is too complex and requires significant overhead. Management would like to simplify the access control and provide user with the ability to determine what permissions should be applied to files, document, and directories. The access control method that BEST satisfies these objectives is:

269 A. Rule-based access control  
270 B. Role-based access control  
271 C. Mandatory access control  
272 D. Discretionary access control  
273

274 43. While reviewing the security controls in place for a web-based application, a security controls assessor notices that there are no password strength requirements in place. Because of this vulnerability, passwords might be easily discovered using a brute force attack. Which of the following password requirements will MOST effectively improve the security posture of the application against these attacks? (Choose two.)

275 A. Minimum complexity  
276 B. Maximum age limit  
277 C. Maximum length  
278 D. Minimum length  
279 E. Minimum age limit  
280 F. Minimum re-use limit  
281

282 44. A security administrator determined that users within the company are installing unapproved software. Company policy dictates that only certain applications may be installed or ran on the user's computers without exception. Which of the following should the administrator do to prevent all unapproved software from running on the user's computer?

283 A. Deploy antivirus software and configure it to detect and remove pirated software  
284 B. Configure the firewall to prevent the downloading of executable files  
285 C. Create an application whitelist and use OS controls to enforce it  
286 D. Prevent users from running as administrator so they cannot install software.  
287

288 45. A security administrator is tasked with implementing centralized management of all network devices. Network administrators will be required to logon to network devices using their LDAP credentials. All command executed by network administrators on network devices must fall within a preset list of authorized commands and must be logged to a central facility. Which of the following configuration commands should be implemented to enforce this requirement?

289 A. LDAP server 10.55.199.3  
290 B. CN=company, CN=com, OU=netadmin, DC=192.32.10.233  
291 C. SYSLOG SERVER 172.16.23.50  
292 D. TACAS server 192.168.1.100

293  
294 46. A website administrator has received an alert from an application designed to check  
the integrity of the company's website. The alert indicated that the hash value for a  
particular MPEG file has changed. Upon further investigation, the media appears to be  
the same as it was before the alert. Which of the following methods has MOST likely  
been used?

295 A. Cryptography  
296 B. Time of check/time of use  
297 C. Man in the middle  
298 D. Covert timing  
299 E. Steganography  
300

301 47. An attacker captures the encrypted communication between two parties for a week,  
but is unable to decrypt the messages. The attacker then compromises the session key  
during one exchange and successfully compromises a single message. The attacker plans  
to use this key to decrypt previously captured and future communications, but is unable  
to. This is because the encryption scheme in use adheres to:

302 A. Asymmetric encryption  
303 B. Out-of-band key exchange  
304 C. Perfect forward secrecy  
305 D. Secure key escrow  
306

307 48. Many employees are receiving email messages similar to the one shown below:  
308 From IT department  
309 To employee  
310 Subject email quota exceeded  
311 Please click on the following link <http://www.website.info/email.php?quota=1Gb> and  
provide your username and password to increase  
312 your email quota.  
313

314 Upon reviewing other similar emails, the security administrator realized that all the  
phishing URLs have the following common elements; they all use HTTP, they all come from  
.info domains, and they all contain the same URI. Which of the following should the  
security administrator configure on the corporate content filter to prevent users from  
accessing the phishing URL, while at the same time minimizing false positives?

315 A. BLOCK <http://www..info/>  
316 B. DROP [http://\"website.info/email.php?](http://\)  
317 C. Redirect [http://www,. Info/email.php?quota=TOhttp://company.com/corporate\\_polict.html](http://www,. Info/email.php?quota=TOhttp://company.com/corporate_polict.html)  
318 D. DENY <http://.info/email.php?quota=1Gb>  
319

320 49. A security analyst is reviewing the following packet capture of an attack directed  
at a company's server located in the DMZ: Which of the following ACLs provides the BEST  
protection against the above attack and any further attacks from the same IP, while  
minimizing service interruption?

321 A. DENY TCP From ANY to 172.31.64.4  
322 B. Deny UDP from 192.168.1.0/24 to 172.31.67.0/24  
323 C. Deny IP from 192.168.1.10/32 to 0.0.0.0/0  
324 D. Deny TCP from 192.168.1.10 to 172.31.67.4  
325

326 50. The IT department needs to prevent users from installing untested applications.  
Which of the following would provide the BEST solution?

327 A. Job rotation  
328 B. Least privilege  
329 C. Account lockout  
330 D. Antivirus  
331

332 51. An attack that is using interference as its main attack to impede network traffic  
is which of the following?

333 A. Introducing too much data to a targets memory allocation  
334 B. Utilizing a previously unknown security flaw against the target  
335 C. Using a similar wireless configuration of a nearby network  
336 D. Inundating a target system with SYN requests  
337

338 52. An organization wants to conduct secure transactions of large data files. Before  
encrypting and exchanging the data files, the organization wants to ensure a secure  
exchange of keys. Which of the following algorithms is appropriate for securing the key  
exchange?

339 A. DES  
340 B. Blowfish

341 C. DSA  
342 D. Diffie-Hellman  
343 E. 3DES  
344  
345 53. Ann, a college professor, was recently reprimanded for posting disparaging remarks re-grading her coworkers on a web site. Ann stated that she was not aware that the public was able to view her remakes. Which of the following security-related trainings could have made Ann aware of the repercussions of her actions?  
346 A. Data Labeling and disposal  
347 B. Use of social networking  
348 C. Use of P2P networking  
349 D. Role-based training  
350  
351 54. During a recent audit, it was discovered that many services and desktops were missing security patches. Which of the following BEST describes the assessment that was performed to discover this issue?  
352 A. Network mapping  
353 B. Vulnerability scan  
354 C. Port Scan  
355 D. Protocol analysis  
356  
357 55. When generating a request for a new x.509 certificate for securing a website, which of the following is the MOST appropriate hashing algorithm?  
358 A. RC4  
359 B. MD5  
360 C. HMAC  
361 D. SHA  
362  
363 56. The administrator installs database software to encrypt each field as it is written to disk. Which of the following describes the encrypted data?  
364 A. In-transit  
365 B. In-use  
366 C. Embedded  
367 D. At-rest  
368  
369 57. Which of the following allows an application to securely authenticate a user by receiving credentials from a web domain?  
370 A. TACACS+  
371 B. RADIUS  
372 C. Kerberos  
373 D. SAML  
374  
375 58. A network technician is trying to determine the source of an ongoing network based attack. Which of the following should the technician use to view IPv4 packet data on a particular internal network segment?  
376 A. Proxy  
377 B. Protocol analyzer  
378 C. Switch  
379 D. Firewall  
380  
381 59. The security administrator has noticed cars parking just outside of the building fence line. Which of the following security measures can the administrator use to help protect the company's WiFi network against war driving? (Choose two.)  
382 A. Create a honeynet  
383 B. Reduce beacon rate  
384 C. Add false SSIDs  
385 D. Change antenna placement  
386 E. Adjust power level controls  
387 F. Implement a warning banner  
388  
389 60. A security administrator suspects that data on a server has been exfiltrated as a result of un-authorized remote access. Which of the following would assist the administrator in confirming the suspicions? (Choose two.)  
390 A. Networking access control  
391 B. DLP alerts  
392 C. Log analysis  
393 D. File integrity monitoring  
394 E. Host firewall rules  
395



396 61. A company is deploying a new VoIP phone system. They require 99.999% uptime for  
their phone service and are concerned about their existing data network interfering  
with the VoIP phone system. The core switches in the existing data network are almost  
fully saturated. Which of the following options will provide the best performance and  
availability for both the VoIP traffic, as well as the traffic on the existing data  
network?

397 A. Put the VoIP network into a different VLAN than the existing data network.  
398 B. Upgrade the edge switches from 10/100/1000 to improve network speed  
399 C. Physically separate the VoIP phones from the data network  
400 D. Implement flood guards on the data network  
401

402 62. A server administrator needs to administer a server remotely using RDP, but the  
specified port is closed on the outbound firewall on the network. The access the server  
using RDP on a port other than the typical registered port for the RDP protocol?

403 A. TLS  
404 B. MPLS  
405 C. SCP  
406 D. SSH  
407

408 63. Which of the following can be used to control specific commands that can be  
executed on a network infrastructure device?

409 A. LDAP  
410 B. Kerberos  
411 C. SAML  
412 D. TACACS+  
413

414 64. Company XYZ has decided to make use of a cloud-based service that requires mutual,  
certificate-based authentication with its users. The company uses SSL-inspecting IDS  
at its network boundary and is concerned about the confidentiality of the mutual  
authentication. Which of the following model prevents the IDS from capturing  
credentials used to authenticate users to the new service or keys to decrypt that  
communication?

415 A. Use of OATH between the user and the service and attestation from the company domain  
416 B. Use of active directory federation between the company and the cloud-based service  
417 C. Use of smartcards that store x.509 keys, signed by a global CA  
418 D. Use of a third-party, SAML-based authentication service for attestation  
419

420 65. Six months into development, the core team assigned to implement a new internal  
piece of software must convene to discuss a new requirement with the stake holders. A  
stakeholder identified a missing feature critical to the organization, which must be  
implemented. The team needs to validate the feasibility of the newly introduced  
requirement and ensure it does not introduce new vulnerabilities to the software and  
other applications that will integrate with it. Which of the following BEST describes  
what the company?

421 A. The system integration phase of the SDLC  
422 B. The system analysis phase of the SDLC  
423 C. The system design phase of the SDLC  
424 D. The system development phase of the SDLC  
425

426 66. A company is investigating a data compromise where data exfiltration occurred.  
Prior to the investigation, the supervisor terminates an employee as a result of the  
suspected data loss. During the investigation, the supervisor is absent for the  
interview, and little evidence can be provided from the role-based authentication  
system in use by the company. The situation can be identified for future mitigation as  
which of the following?

427 A. Job rotation  
428 B. Log failure  
429 C. Lack of training  
430 D. Insider threat  
431

432 67. A security administrator needs an external vendor to an urgent issue with an  
organization's physical access control system (PACS). The PACS does not currently have  
internet access because it is running a legacy operation system. Which of the following  
methods should the security administrator select the best balances security and  
efficiency?

433 A. Temporarily permit outbound internet access for the pacs so desktop sharing can be  
set up  
434 B. Have the external vendor come onsite and provide access to the PACS directly  
435 C. Set up VPN concentrator for the vendor and restrict access to the PACS using desktop

sharing

436 D. Set up a web conference on the administrator's pc; then remotely connect to the pacs

437

438 68. A datacenter manager has been asked to prioritize critical system recovery

439 priorities. Which of the following is the MOST critical for immediate recovery?

440 A. Communications software

441 B. Operating system software

442 C. Weekly summary reports to management

443 D. Financial and production software

444

445 69. Which of the following techniques can be bypass a user or computer's web browser

446 privacy settings? (Select Two)

447 A. SQL injection

448 B. Session hijacking

449 C. Cross-site scripting

450 D. Locally shared objects

451 E. LDAP injection

452

453 70. When designing a web based client server application with single application server

454 and database cluster backend, input validation should be performed:

455 A. On the client

456 B. Using database stored procedures

457 C. On the application server

458 D. Using HTTPS

459

460 71. Which of the following delineates why it is important to perform egress filtering

461 and monitoring on Internet connected security zones of interfaces on a firewall?

462 A. Egress traffic is more important than ingress traffic for malware prevention

463 B. To rebalance the amount of outbound traffic and inbound traffic

464 C. Outbound traffic could be communicating to known botnet sources

465 D. To prevent DDoS attacks originating from external network

466

467 72. The help desk is receiving numerous password change alerts from users in the

468 accounting department. These alerts occur multiple times on the same day for each of

469 the affected users' accounts. Which of the following controls should be implemented to

470 curtail this activity?

471 A. Password Reuse

472 B. Password complexity

473 C. Password History

474 D. Password Minimum age

475

476 73. Which of the following would enhance the security of accessing data stored in the

477 cloud? (Choose two.)

478 A. Block level encryption

479 B. SAML authentication

480 C. Transport encryption

481 D. Multifactor authentication

482 E. Predefined challenge questions

483 F. Hashing

484

485 74. A remote user (User1) is unable to reach a newly provisioned corporate windows

486 workstation. The system administrator has been given the following log files from the

487 VPN, corporate firewall and workstation host. Which of the following is preventing the

488 remote user from being able to access the workstation?

489 A. Network latency is causing remote desktop service request to time out

490 B. User1 has been locked out due to too many failed passwords

491 C. Lack of network time synchronization is causing authentication mismatches

492 D. The workstation has been compromised and is accessing known malware sites

493 E. The workstation host firewall is not allowing remote desktop connections

494

495 75. Ann has read and written access to an employee database, while Joe has only read

496 access. Ann is leaving for a conference. Which of the following types of authorization

497 could be utilized to trigger write access for Joe when Ann is absent?

498 A. Mandatory access control

499 B. Role-based access control

500 C. Discretionary access control

501 D. Rule-based access control

502

503 76. Recently, the desktop support group has been performing a hardware refresh and has

replaced numerous computers. An auditor discovered that a number of the new computers did not have the company's antivirus software installed on them. Which of the following could be utilized to notify the network support group when computers without the antivirus software are added to the network?

491 A. Network port protection  
 492 B. NAC  
 493 C. NIDS  
 494 D. Mac Filtering

77. An administrator needs to protect against downgrade attacks due to various vulnerabilities in SSL/TLS. Which of the following actions should be performed? (Choose two.)

497 A. Set minimum protocol supported  
 498 B. Request a new certificate from the CA  
 499 C. Configure cipher order  
 500 D. Disable flash cookie support  
 501 E. Re-key the SSL certificate  
 502 F. Add the old certificate to the CRL

78. A developer needs to utilize AES encryption in an application but requires the speed of encryption and decryption to be as fast as possible. The data that will be secured is not sensitive so speed is valued over encryption complexity. Which of the following would BEST satisfy these requirements?

505 A. AES with output feedback  
 506 B. AES with cipher feedback  
 507 C. AES with cipher block chaining  
 508 D. AES with counter mode

79. During a code review a software developer discovers a security risk that may result in hundreds of hours of rework. The security team has classified these issues as low risk. Executive management has decided that the code will not be rewritten. This is an example of:

511 A. Risk avoidance  
 512 B. Risk transference  
 513 C. Risk mitigation  
 514 D. Risk acceptance

80. A network was down for several hours due to a contractor entering the premises and plugging both ends of a network cable into adjacent network jacks. Which of the following would have prevented the network outage? (Choose Two)

517 A. Port security  
 518 B. Loop Protection  
 519 C. Implicit deny  
 520 D. Log analysis  
 521 E. Mac Filtering  
 522 F. Flood Guards

81. After disabling SSID broadcast, a network administrator still sees the wireless network listed in available networks on a client laptop. Which of the following attacks may be occurring?

525 A. Evil Twin  
 526 B. ARP spoofing  
 527 C. Disassociation flooding  
 528 D. Rogue access point  
 529 E. TKIP compromise

82. A security manager is preparing the training portion of an incident plan. Which of the following job roles should receive training on forensics, chain of custody, and the order of volatility?

532 A. System owners  
 533 B. Data custodians  
 534 C. First responders  
 535 D. Security guards

83. Virtualization that allows an operating system kernel to run multiple isolated instances of the guest is called:

538 A. Process segregation  
 539 B. Software defined network  
 540 C. Containers

541 D. Emulation  
542  
543 84. Which of the following is a proprietary protocol commonly used for router authentication across an enterprise?  
544 A. SAML  
545 B. TACACS  
546 C. LDAP  
547 D. RADIUS  
548  
549 85. While responding to an incident on a new Windows server, the administrator needs to disable unused services. Which of the following commands can be used to see processes that are listening on a TCP port?  
550 A. IPCONFIG  
551 B. Netstat  
552 C. PSINFO  
553 D. Net session  
554  
555 86. A system administrator must configure the company's authentication system to ensure that users will be unable to reuse the last ten passwords within a six months period. Which of the following settings must be configured? (Choose Two)  
556 A. Minimum password age  
557 B. Password complexity  
558 C. Password history  
559 D. Minimum password length  
560 E. Multi-factor authentication  
561 F. Do not store passwords with reversible encryption  
562  
563 87. An administrator requests a new VLAN be created to support the installation of a new SAN. Which of the following data transport?  
564 A. Fibre Channel  
565 B. SAS  
566 C. Sonet  
567 D. ISCSI  
568  
569 88. Which of the following access control methodologies provides an individual with the most restrictive access rights to successfully perform their authorized duties?  
570 A. Mandatory Access Control  
571 B. Rule Based Access Control  
572 C. Least Privilege  
573 D. Implicit Deny  
574 E. Separation of Duties  
575  
576 89. An administrator wants to provide onboard hardware based cryptographic processing and secure key storage for full-disk encryption. Which of the following should the administrator use to fulfil the requirements?  
577 A. AES  
578 B. TPM  
579 C. FDE  
580 D. PAM  
581  
582 90. When viewing IPS logs the administrator see systems all over the world scanning the network for servers with port 22 open. The administrator concludes that this traffic is a(N):  
583 A. Risk  
584 B. Vulnerability  
585 C. Exploit  
586 D. Threat  
587  
588 91. Ann a user has been promoted from a sales position to sales manager. Which of the following risk mitigation strategies would be MOST appropriate when a user changes job roles?  
589 A. Implement data loss prevention  
590 B. Rest the user password  
591 C. User permissions review  
592 D. Notify incident management  
593  
594 92. A system administrator is implementing a firewall ACL to block specific communication to and from a predefined list of IP addresses, while allowing all other communication. Which of the following rules is necessary to support this implementation?

595 A. Implicit allow as the last rule  
596 B. Implicit allow as the first rule  
597 C. Implicit deny as the first rule  
598 D. Implicit deny as the last rule  
599  
600 93. Joe a system architect wants to implement appropriate solutions to secure the  
company's distributed database. Which of the following concepts should be considered to  
help ensure data security? (Choose two.)  
601 A. Data at rest  
602 B. Data in use  
603 C. Replication  
604 D. Wiping  
605 E. Retention  
606 F. Cloud Storage  
607  
608 94. A forensics analyst is tasked identifying identical files on a hard drive. Due to  
the large number of files to be compared, the analyst must use an algorithm that is  
known to have the lowest collision rate. Which of the following should be selected?  
609 A. MD5  
610 B. RC4  
611 C. SHA-128  
612 D. AES-256  
613  
614 95. A government agency wants to ensure that the systems they use have been deployed as  
security as possible. Which of the following technologies will enforce protections on  
these systems to prevent files and services from operating outside of a strict rule set?  
615 A. Host-based Intrusion detection  
616 B. Host-based firewall  
617 C. Trusted OS  
618 D. Antivirus  
619  
620 96. An organization receives an email that provides instruction on how to protect a  
system from being a target of new malware that is rapidly infecting systems. The  
incident response team investigates the notification and determines it to invalid and  
notifies users to disregard the email. Which of the following Best describes this  
occurrence?  
621 A. Phishing  
622 B. Scareware  
623 C. SPAM  
624 D. Hoax  
625  
626 97. Joe an employee has reported to Ann a network technician an unusual device plugged  
into a USB port on a workstation in the call center. Ann unplugs the workstation and  
brings it to the IT department where an incident is opened. Which of the following  
should have been done first?  
627 A. Notify the incident response team lead  
628 B. Document chain of custody  
629 C. Take a copy of volatile memory  
630 D. Make an image of the hard drive  
631  
632 98. A company is implementing a system to transfer direct deposit information to a  
financial institution. One of the requirements is that the financial institution must  
be certain that the deposit amounts within the file have not been changed. Which of the  
following should be used to meet the requirement?  
633 A. Key escrow  
634 B. Perfect forward secrecy  
635 C. Transport encryption  
636 D. Digital signatures  
637 E. File encryption  
638  
639 99. An organization uses a Kerberos-based LDAP service for network authentication. The  
service is also utilized for internal web applications. Finally access to terminal  
applications is achieved using the same authentication method by joining the legacy  
system to the Kerberos realm. This company is using Kerberos to achieve which of the  
following?  
640 A. Trusted Operating System  
641 B. Rule-based access control  
642 C. Single sign on  
643 D. Mandatory access control

644

645 100. A recent audit has revealed that all employees in the bookkeeping department have  
access to confidential payroll information, while only two members of the bookkeeping  
department have job duties that require access to the confidential information. Which  
of the following can be implemented to reduce the risk of this information becoming  
compromised in this scenario? (Choose two.)

646 A. Rule-based access control

647 B. Role-based access control

648 C. Data loss prevention

649 D. Separation of duties

650 E. Group-based permissions

651