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Multiple Choice Test
for SANS LevelTwo GIAC Incident Handling Certification
by Brent Stackhouse

Following each question is the book id (4.1 = Computer Security Incident Handling, 4.2 = Computer and Network Hacker Exploits: Step-by-Step, Part 1, and 4.3 = Computer and Network Hacker Exploits: Step-by-Step, Part II), page number(s), and correct answer letter.

1. The six critical steps of incident handling, in order, are:
 - A. Prepare, Detect, Eradicate, Contain, Lessons Learned, Recover
 - B. Approve, Remove, Improve, Debrief, Simplify, Maintain
 - C. Detect, Contain, Remove, Recover, Lessons Learned, Improve
 - D. Prepare, Identify, Contain, Eradicate, Recover, Lessons Learned* 4.1, p. 32, D
2. Most incidents are not reported by:
 - A. Help Desk personnel
 - B. Incident Handlers
 - C. End Users
 - D. Systems Administrators* 4.1, p. 5, B
3. In the event that data from an incident is used in court, it's a good idea, during the incident, to:
 - A. Eat a quick snack
 - B. Work quickly
 - C. Take good notes
 - D. All the above* 4.1, p. 12, C
4. In an incident, full backups should be done:
 - A. As soon as possible
 - B. After a situation has been completely assessed
 - C. When the incident has been resolved
 - D. Not at all - full backups should already be available* 4.1, p. 18, A
5. One of the pitfalls of incident handling is:
 - A. Unrealistic expectations
 - B. Restoring from backups that are already compromised
 - C. Working with people
 - D. All the above* 4.1, p. 20, B
6. One of the "Seven Deadly Sins" of incident handling is:
 - A. Failure to apply lessons learned
 - B. Failure to contain or eradicate
 - C. Failure to take notes

- D. All of the above
* 4.1, p. 23, D
7. _____ is important when handling an incident:
- A. Testing
 - B. Checking
 - C. Encrypting
 - D. Communicating
- * 4.1, p.25, D
8. When experiencing a Denial-of-Service attack from the Internet, it's a good idea to:
- A. Tighten perimeter defenses
 - B. Remove the attacked host from the Internet
 - C. Strike back with your own DOS attack
 - D. Open up more firewall ports so that the ports under attack aren't as saturated
- * 4.1, p. 27, A
9. "Presumption of Privacy" means:
- A. Users' activities are their business, not the company's
 - B. Privacy is a constitutional right
 - C. The level of privacy, if any, that a user has on a given company's network or host
 - D. Encryption is required on that system
- * 4.1, p. 37, C
10. Policies are:
- A. Only good if they're kept very general
 - B. For large companies only
 - C. Best decided before an incident instead of during one
 - D. Official only when notarized
- * 4.1, pp. 38, 39, C
11. System administrators should not be:
- A. Involved at all in incident handling
 - B. Discouraged from reading log files
 - C. Allowed access to a compromised system
 - D. All of the above
- * 4.1, p. 45, B
12. During an incident, communication to _____ is encouraged:
- A. Your manager
 - B. Your security officer
 - C. Your Help Desk
 - D. All of the above
- * 4.1, p. 60, D
13. Along with communication, the following item(s) are important in the Identification phase of an incident:
- A. Alerting only when sure of the existence of an incident
 - B. Information correlation or fusing
 - C. Maintaining situational awareness
 - D. Both A and B

- E. Both B and C
* 4.1, p. 61, E
14. Signs of an incident do not include:
- A. Unexplained user accounts
 - B. Accounting discrepancies
 - C. Unexplained attempts to write to system files
 - D. User obtaining root access
- * 4.1, p. 62, D
15. When arriving on the scene of an incident, you should:
- A. Wait until backups complete before contacting the command center
 - B. Generate a list of potential witnesses
 - C. Treat your arrival time as time zero of the incident
 - D. Assume the information you were given prior to arriving is accurate
- * 4.1, p. 68, B
16. When assessing a potentially compromised system, you should:
- A. Assume all system binaries are intact
 - B. Use basic network tools like ping, telnet, and ftp to gather information on a suspected intruder's IP address
 - C. Discontinue normal system activities as soon as possible
 - D. Use pristine binaries and your own backup program from your jump kit
- * 4.1, pp. 76, 77, D
17. When establishing quarantine boundaries, it's a good idea to:
- A. Disconnect all systems on the subnet that the compromised system is on
 - B. Determine and certify the trustmodel
 - C. Contact all users on the affected systems
 - D. A and B
 - E. B and C
- * 4.1, p. 80, B
18. During the eradication phase of incident handling, it's best to:
- A. "Nuke from high orbit."
 - B. Determine the cause of the incident and take action to prevent it from recurring
 - C. Restore from backups immediately
 - D. All of the above
- * 4.1, p. 82, B
19. Validating a system includes:
- A. Asking for a test plan and baseline documentation
 - B. Getting the system owner to sign that the system is back in full operation
 - C. Having the support vendor certify the machine as operational
 - D. B and C
 - E. A and B
- * 4.1, p. 89, E
20. Which of the following are ineffective for defending against malicious code?
- A. Monitoring for abnormal outbound traffic
 - B. Creating a strong configuration management process

- C. Server-based anti-virus scanners
 - D. None of the above
- * 4.1, pp. 112 - 115
21. Examples of Denial Of Service attacks include:
- A. Smurf
 - B. Out-of-Band
 - C. Mail bombing
 - D. All of the above
- * 4.1, pp. 124 - 126. D
22. It is not a good idea when dealing with espionage to:
- A. Maintain a small core team
 - B. Perform target analysis of important information assets and monitor them
 - C. Shut down all access to the firewall
 - D. Establish a war room containing copies of the evidence
- * 4.1, pp. 130 - 137, C
23. When dealing with unauthorized use, an incident handler should not:
- A. Gather evidence from logs, e-mail, and other sources
 - B. Confront the intruder
 - C. Recommend policy changes to restrict unauthorized use
 - D. Ever involve the HR department
- * 4.1, pp. 159, 165, B
24. Expert Witness is:
- A. A great UNIX tool
 - B. The best backup tool for Win9x/NT
 - C. Identical to Tripwire
 - D. An evidence-gathering tool for FAT file systems
- * 4.1, p. 185, D
25. The U.S. Department of Defense standard for safe file deletion:
- A. Is 7 wipes, each of which puts random information in the physical location of the file
 - B. Is 36 wipes, each of which puts random information in the physical location of the file
 - C. Uses Windows Defragmenter
 - D. Employs polarity reversal for each sector on the disk
- * 4.1, p. 205, A
26. Steganography is:
- A. A form of handwriting that uses codewords
 - B. Hiding files inside other files
 - C. The process of charting forensics evidence
 - D. Outdated and only works on IBM mainframes
- * 4.1, p. 214, B
27. Depending on the type of system, good forensics commands are:
- A. ls -lart, ps -ef, df, find
 - B. netstat -a, rpm -V filename

- C. strings, od, diff
 - D. All of the above
- * 4.1, pp. 227 - 229, D
28. Signs of a sniffer being on your network include:
- A. Your firewall logs a lot of traffic to port 135
 - B. All the routers hang
 - C. A network card is in promiscuous mode
 - D. Log files randomly disappear from NT servers
- * 4.1, p. 142, C
29. Malicious code examples do not include:
- A. Infinite loops
 - B. Viruses
 - C. Root kits
 - D. Easter eggs
- * 4.1, p. 106, A
30. Central reporting of incidents can be encouraged by:
- A. Rewarding users that report
 - B. Educating users as they're hired
 - C. Removing users' computers from the network that don't report
 - D. A and B
 - E. A and C
- * 4.1, p. 56, D
31. Pick the following false statement about exploits:
- A. Does not have to be computer based
 - B. Is a security hole or takes advantage of a security hole
 - C. Anything that can be used to compromise a machine
 - D. Refers only to Internet-connected servers
- 4.2, p. 8, D
32. Exploits are attacks against:
- A. Confidentiality
 - B. Irrefutability
 - C. Integrity
 - D. A and B
 - E. A and C
- * 4.2, p. 9, E
33. Which of the following is not an attack against availability:
- A. Denial of Service
 - B. Disabling user accounts
 - C. Having the ability to change data
 - D. Disabling applications from running
- * 4.2, p. 12, C
34. An attack over the Internet would involve:
- A. Shoulder surfing
 - B. Unlocked terminals

- C. Application hijacking
 - D. Session hijacking
- * 4.2, p. 14, D
35. The following can be exploited:
- A. Inference channels
 - B. Covert channels
 - C. Services
 - D. Ports
 - E. All the above
- * 4.2, p. 20, E
36. Which of the following statements about Denial Of Service attacks is true?
- A. Are always deliberate
 - B. Always renders a system permanently unusable
 - C. Only affect UNIX systems
 - D. Can be hindered by restricting access to critical accounts and resources
- * 4.2, p. 32, D
37. Buffer overflows are not caused by:
- A. Buffer trojans
 - B. Poor programming
 - C. A lack of error checking
 - D. Sending unexpected data
- * 4.2, p. 33, A
38. Which of the following are not used in password exploits?
- A. Automated cracking programs
 - B. Dictionary attacks
 - C. L0pht AntiSniff
 - D. Brute force attacks
- * 4.2, p. 34, C
39. Password cracking is not a useful administrative tool for:
- A. Tracking user activity
 - B. Migrating users
 - C. Recovering forgotten passwords
 - D. Auditing the strength of passwords
- * 4.2, p. 43, A
40. L0pht Crack does not feature:
- A. Hybrid cracks
 - B. SMB packet capture
 - C. Custom character set
 - D. Support for UNIX
- * 4.2, p. 46, D
41. Ways to protect against password cracking on NT:
- A. Have password policy
 - B. Disable LAN Manager authentication
 - C. Use L0pht Crack to automatically generate passwords

- D. A and B
 - E. A, B, and C
 - * 4.2, p. 61, D
42. Passwords do not:
- A. Control access
 - B. Determine access level
 - C. Potentially create back doors for future access
 - D. Serve as a first line of defense
- * 4.2, p. 69, B
43. Which is true about Crack?
- A. Already compiled
 - B. Works on both NT and Unix
 - C. Requires lots of CPU time
 - D. Large amount of disk space
- * 4.2, p. 72, C
44. The following utility is needed to view Crack run output:
- A. Output
 - B. Reporter
 - C. Reader
 - D. Crack.out
- * 4.2, p. 75, B
45. General guidelines for passwords would not include:
- A. Accounts are locked after three attempts
 - B. Passwords change every 90 days
 - C. Must contain one alpha, one number, and one special character
 - D. Cannot use previous five passwords
- * 4.2, p. 83, B
46. Protect against UNIX Crack by:
- A. Avoiding shadow passwords
 - B. Enforcing a strong password policy
 - C. Automatically generating passwords
 - D. Increasing security on /etc/passwd to 777
- * 4.2, p. 82, B
47. The Get Admin exploit:
- A. Grants normal users administrative rights
 - B. Grabs the Administrator password from network traffic
 - C. Disabled all administrative accounts
 - D. Occurs only on old versions of UNIX
- * 4.2, p. 93, A
48. SecHole grants the following to an attacker:
- A. Administrator access via Netbios overflows
 - B. Access to Primary Domain Controller registry images
 - C. Debug-level access on a system process
 - D. Web page access via CGI vulnerabilities

- * 4.2, p. 103, C
49. Which are not DOS attacks?
- A. Red Button
 - B. CPU Hog
 - C. Win Nuke
 - D. RPC Locator
- * 4.2, p. 135, A
50. The NetMeeting Buffer Overflow attack allows an attacker to:
- A. Immediately compromise an entire NT domain
 - B. Gain root access on a Solaris box
 - C. Execute arbitrary code on a client's machine
 - D. Generate anonymous e-mail from MS Outlook on several machines
- * 4.2, p. 159, C
51. CGI (Common Gateway Interface) Attacks:
- A. Always use port 81
 - B. Only affect Netscape products
 - C. Allows an attacker to execute arbitrary commands on the web server
 - D. Allows an attacker to deny service to an Internet domain
- * 4.2, p. 176, C
52. Which is not true about CGI programs?
- A. Susceptible to buffer underflow attacks
 - B. Executed by the web server
 - C. Requested by a usually unauthenticated client
 - D. Its process has all the privileges of the web server that called it
- * 4.2, p. 179, A
53. Campas is:
- A. The last name of the author of HTTP
 - B. A hacker program
 - C. A functionality-adding program distributed with NSCA httpd server 1.2
 - D. A DOS attack
- * 4.2, p. 188, C
54. The ToolTalk Buffer Overflow is:
- A. A Solaris attack only
 - B. An attack that exploits the ToolTalk RPC service
 - C. An attack that exploits an inadequate boundary check, allowing stack data to be overwritten
 - D. A and B
 - E. B and C
- * 4.2, p. 197, E
55. Hack A Tack does not do the following:
- A. Hide its presence in the Windows NT process list
 - B. Install a program called expl32.exe in \windows\system\
 - C. Place a key in the registry to run itself on startup
 - D. Register in the process list as Explorer32

* 4.2, p. 281, A

56. The land Denial-of-Service attack:

- A. Has an IP packet with the same value for source and destination addresses
- B. Has an IP packet with the same value for source and destination ports
- C. Exploits vulnerabilities in some TCP/IP stack implementations
- D. All of the above

* 4.2, p. 253, D

57. SSPing uses:

- A. ICMP for a Denial-of-Service Attack
- B. IP for a Denial-of-Service Attack
- C. TCP for a Buffer Overflow Attack
- D. ICMP for a Buffer Overflow Attack

* 4.2, p. 244, A

58. A Denial-of-Service Attack that uses large-sized ICMP packets is:

- A. Syn Flood
- B. SSPing
- C. Ping of Death
- D. ICMPack

* 4.2, p. 234, C

59. Smurf attacks are not characterized by:

- A. A large amount of ICMP echo traffic being sent to IP broadcast addresses
- B. Spoofed addresses of a victim machine
- C. ACK bits being set on each packet
- D. None of the above

* 4.2, p. 259, C

60. Good tips for protecting your site include:

- A. Inventory your current software and operating systems
- B. Relying on CERT for alerts about latest exploits
- C. Uniformly applying patches
- D. A and B
- E. A and C

* 4.2, p. 306, E

61. To perform DNS Cache Poisoning, use:

- A. Netcat
- B. Knark
- C. Jizz
- D. Loki

* 4.3, p. 83, C

62. Which tool is good for determining open ports through a firewall?

- A. nmap
- B. nessus
- C. netcat
- D. firewalk

* 4.3, p. 32, C

63. Good defenses against IP Spoofing do not include:
- A. Blocking incoming port 80 at the perimeter router
 - B. Replace r-commands (rsh, rcp, rlogin, etc.) with ssh or lsh
 - C. Utilize anti-spoof filters at routers and firewalls
 - D. Do not extend trust relationships outside of the firewall
- * 4.3, p. 57, A
64. The best defense against sniffers includes:
- A. Using L0pht Crack to ensure strong passwords
 - B. Using switched Ethernet on critical segments
 - C. Both A and B
 - D. None of the above
- * 4.3, p. 69, B
65. IP Fragmentation Attacks are not useful for:
- A. Avoiding detection by network IDS systems
 - B. Getting around packet filters in routers and firewalls
 - C. Scanning networks
 - D. Disrupting ARP tables
- * 4.3, pp. 59, 63, D
66. IP Spoofing means:
- A. Pretending to be a different IP address
 - B. Sending fragmented IP packets
 - C. Sending fragmented ICMP packets
 - D. Injecting memory interrupt calls into a system's memory remotely
- * 4.3, p. 47, A
67. Which is not a Session Hijacking tool?
- A. Hunt
 - B. Sniffit
 - C. IPWatcher
 - D. Juggernaut
- * 4.3, pp. 76, 77, B
68. Netcat is used for:
- A. Port scanning
 - B. Transferring data
 - C. Making connections to open ports
 - D. Replay attacks
 - E. All of the above
- * 4.3, pp. 93 -94, 96 -97, E
69. Defending against Netcat would not include:
- A. Shutting down unused ports
 - B. Registry lockdown
 - C. Including a timestamp and cryptographically signing all input for critical apps
 - D. Applying system patches
- * 4.3, p. 100, B
70. Targa is used for:

- A. Denial-of-Service attacks
- B. Buffer Overflow attacks
- C. IP Fragmentation attacks
- D. None of the above

* 4.3, p. 104, A

71. Tribe Flood Network's architecture is not:

- A. Clients control the servers
- B. Servers do the attacks
- C. Peer-to-peer
- D. Optimized for Denial-of-Service attacks

* 4.3, p. 107, C

72. The best ways to defend against Distributed Denial-of-Service attacks include:

- A. Using both host and network intrusion detection
- B. Removing Windows machines from exposed Internet network segments
- C. Contacting upstream ISPs to ensure their routers are patched
- D. None of the above

* 4.3, p. 115, A

73. Which is true concerning cracking WWW apps?

- A. Very difficult to exploit
- B. Attackers can usurp the session of another user
- C. URL Session Tracking and Hidden Form Elements are not exploitable
- D. Cookies are always read only

* 4.3, pp. 120, 121, B

74. Effective defenses against Web Application Cracks include:

- A. Ensuring that the entire application is completely covered
- B. Prevent accidental session ID collision by making them at least 10 characters
- C. Encrypt cookie information
- D. Apply timestamps within variables
- E. All of the above

* 4.3, p. 123, E

75. Which is not true about Back Orifice 2000?

- A. Open Source
- B. Only controls Windows machines
- C. No default port
- D. Shows up in the task list by default

* 4.3, pp. 128, 129, D

76. Back Orifice does which of the following?

- A. Change file mode on /etc/passwd and /etc/shadow
- B. Randomly change Windows registry settings
- C. Exploits Windows shares
- D. Packet and application redirection

* 4.3, pp. 132, 133, D

77. Saran Wrap, Silk Rope, Speakeasy, and Trumpet all:

- A. Work with Back Orifice 2000

- B. Are Denial-of-Service tools
 - C. Generate large sniffer logs
 - D. Use 128-bit 3DES encryption
- * 4.3, p. 136, A
78. When you are defending against BO2K, you should not:
- A. Check port 31337, even though it's not the default
 - B. Install the Microsoft BO2K service pack
 - C. Look for a "Remote Administration" service
 - D. Use network intrusion detection to look for BO2K packets
- * 4.3, p. 137, B
79. Backdoor, NetBus, DeepThroat, and NetSpy are all:
- A. Denial-of-Service attack programs
 - B. Type of RootKits
 - C. BO2K look-alikes
 - D. Free network scanners
- * 4.3, p. 139, C
80. RootKits do the following:
- A. Remove the root password
 - B. Install trojanized versions of command programs like find, inetd, ls, and netstat
 - C. Delete all log files
 - D. Gain root access on a UNIX box
- * 4.3, p. 146, B
81. RootKit defenses include:
- A. Running a Tripwire, ISS System Scanner or something similar
 - B. Changing the root account's name to something else
 - C. Changing all system binaries with `chmod 777 /bin/*`
 - D. All of the above
- * 4.3, p. 149, A
82. Knark is a different kind of RootKit because it:
- A. Deletes Tripwire logs when it finds them, thus preventing detection
 - B. Combines root cracking tools with standard trojan binaries
 - C. Allows all users to login without a password
 - D. Runs at the kernel level
- * 4.3, p. 151, D
83. The best defense against Knark for sensitive systems is:
- A. Utilize network and host IDS
 - B. Look for the presence of `/usr/lib/.knark/`
 - C. Build a monolithic module that disallows loadable kernel modules
 - D. Don't use Windows
- * 4.3, p. 160, C
84. `remove.c`, `cloak.c`, and `wzap.c` are all:
- A. RootKits
 - B. Trojans
 - C. Denial-of-Service attack tools source code

- D. Binary log file editors
* 4.3, p. 168, D
85. Log File Alteration defenses do not include:
- A. Using a separate server for logging
 - B. Run Tripwire hourly to check for any changes
 - C. Using write-once media
 - D. Encrypting your log files
- * 4.3, p. 171, B
86. Reverse WWW Shell is insidious because:
- A. It allows an attacker to access a machine with a command line prompt on your network from the outside
 - B. From a network perspective, it makes it appear that the victim machine is just surfing the web
 - C. None of the above
 - D. A and B
- * 4.3, p. 172, D
87. The Principle of Least Privileges (POLP) is valuable in defending against:
- A. Reverse WWW Shell
 - B. Loki
 - C. Knark
 - D. A and B
 - E. None of the above
- * 4.3, pp. 174, 177, D
88. The following are not useful sites for hacker exploits:
- A. www.hackernews.com
 - B. www.securify.com/packetstorm
 - C. www.technotronic.com
 - D. None of the above
- * 4.3, pp. 197, 198, D
89. The following mailing lists are useful for security in general, including exploits:
- A. Bugtraq
 - B. CERT
 - C. Hack Track
 - D. A and B
 - E. All of the above
- * 4.3, pp. 202, 204, D
90. Netcat runs in either:
- A. Client mode or Listen mode
 - B. Client mode or Server mode
 - C. Listen mode or Send mode
 - D. Attack mode or Passive mode
- * 4.3, p. 92, A

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