

¶ EASY (Q1–Q10)

Q1. Malware reverse engineering primarily involves:

- A. Writing malware
- B. Analyzing malicious code behavior
- C. Encrypting malware
- D. Distributing malware

Q2. The main purpose of malware analysis is to:

- A. Improve malware performance
- B. Understand functionality and mitigate threats
- C. Spread malware
- D. Hide malware

Q3. A virus differs from a worm because a virus:

- A. Self-propagates without interaction
- B. Requires a host file or user action
- C. Uses only networks
- D. Is harmless

Q4. Ransomware primarily targets:

- A. Network bandwidth
- B. Data availability
- C. Physical security
- D. Authentication

Q5. Spyware is designed to:

- A. Encrypt files
- B. Monitor user activity secretly
- C. Crash systems
- D. Block network access

Q6. Botnets are mainly used for:

- A. File backups
- B. Coordinated attacks
- C. System optimization
- D. Encryption

Q7. Static malware analysis does NOT involve:

- A. File hashes
- B. String analysis
- C. Executing malware
- D. Header inspection

Q8. Dynamic malware analysis requires:

- A. Source code
- B. Execution in a controlled environment
- C. No isolation
- D. Production systems

Q9. Indicators of Compromise (IOCs) include:

- A. File hashes and IP addresses
- B. Password policies
- C. Network speed
- D. System uptime

Q10. Rootkits primarily aim to:

- A. Encrypt data
 - B. Hide malicious presence
 - C. Improve performance
 - D. Patch vulnerabilities
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MEDIUM (Q11–Q25)

Q11. Fileless malware primarily resides in:

- A. Disk files
- B. Memory
- C. Boot sector
- D. BIOS

Q12. Polymorphic malware evades detection by:

- A. Changing functionality
- B. Changing code appearance
- C. Disabling antivirus
- D. Avoiding execution

Q13. Metamorphic malware is harder to detect because it:

- A. Encrypts payload
- B. Rewrites its own code
- C. Uses fixed signatures
- D. Avoids files

Q14. Logic bombs are triggered by:

- A. Network traffic
- B. Specific conditions or events
- C. User login
- D. Antivirus scans

Q15. Ransomware-as-a-Service (RaaS) allows:

- A. Free encryption
- B. Malware distribution as a service
- C. Antivirus testing
- D. Secure backups

Q16. Advanced Persistent Threats (APTs) are characterized by:

- A. Short-term attacks
- B. Long-term targeted campaigns
- C. Random scanning
- D. No persistence

Q17. Static analysis tools help identify:

- A. Runtime behavior
- B. Embedded strings and imports
- C. Network traffic
- D. Registry changes

Q18. Dynamic analysis reveals:

- A. Code syntax
- B. Actual runtime behavior
- C. File headers only
- D. Hash values

Q19. Memory analysis is useful for detecting:

- A. File permissions
- B. In-memory malware artifacts
- C. Disk usage
- D. Network latency

Q20. Network traffic analysis helps identify:

- A. CPU usage
- B. Command and Control communication
- C. File integrity
- D. BIOS changes

Q21. Disassembly converts binaries into:

- A. Source code
- B. Assembly instructions
- C. High-level language
- D. Pseudocode only

Q22. Decompilation attempts to produce:

- A. Assembly code
- B. High-level source code
- C. Machine code
- D. Hex dumps

Q23. Packers are used by malware to:

- A. Compress files for storage
- B. Obfuscate malicious code
- C. Improve execution speed
- D. Patch vulnerabilities

Q24. Anti-debugging techniques aim to:

- A. Improve performance
- B. Prevent analysis
- C. Encrypt traffic
- D. Block execution

Q25. Anti-VM techniques detect:

- A. User behavior
 - B. Virtualized environments
 - C. Encryption keys
 - D. Network latency
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HARD (Q26–Q40)

Q26. Fileless malware increases detection difficulty because it:

- A. Leaves no disk artifacts
- B. Uses encryption only
- C. Is slower
- D. Requires reboot

Q27. Behavioral analysis is effective against:

- A. Known malware only
- B. Zero-day malware
- C. Static malware only
- D. Signed binaries

Q28. Polymorphic malware defeats which detection method most effectively?

- A. Behavioral
- B. Signature-based
- C. Heuristic
- D. Network-based

Q29. Metamorphic malware increases analysis complexity by:

- A. Changing execution order
- B. Altering code structure each generation
- C. Using encryption only
- D. Avoiding execution

Q30. APT malware typically prioritizes:

- A. Speed
- B. Stealth and persistence
- C. Immediate impact
- D. Visibility

Q31. Memory forensics can reveal:

- A. Deleted registry keys only
- B. Injected processes and hooks
- C. Disk partitions
- D. BIOS updates

Q32. Network-based IOCs include:

- A. File hashes
- B. IPs, domains, and URLs
- C. File permissions
- D. Registry paths

Q33. Sandboxing limitations arise when malware:

- A. Is encrypted
- B. Detects sandbox environments
- C. Uses files
- D. Is static

Q34. Reverse engineering malware assists defenders by:

- A. Creating exploits
- B. Developing detection signatures
- C. Spreading malware
- D. Improving malware

Q35. Malware targeting IoT is dangerous because IoT devices:

- A. Are well-patched
- B. Have limited security controls
- C. Use strong encryption
- D. Are rarely connected

Q36. AI-assisted malware increases threat because it:

- A. Is easier to detect
- B. Adapts to defenses dynamically
- C. Is slower
- D. Uses static logic

Q37. Malware lifecycle persistence is achieved through:

- A. Temporary files only
- B. Startup entries and scheduled tasks
- C. Network packets
- D. Encryption

Q38. Signature-based detection fails when malware:

- A. Is well known
- B. Is heavily obfuscated
- C. Has fixed hashes
- D. Is static

Q39. Effective malware mitigation requires:

- A. Malware removal only
- B. Detection, containment, and remediation
- C. Antivirus updates only
- D. Firewall rules only

Q40. The primary ethical requirement in malware analysis labs is:

- A. Speed
- B. Isolation and authorization
- C. Public execution
- D. Internet connectivity