

****Cyber Security Quiz - Hard****

****Instructions:** Choose the best answer for each multiple-choice question.**

****1. Which of the following cryptographic algorithms is NOT considered a symmetric encryption algorithm?****

- A. AES
- B. DES
- C. RSA
- D. 3DES

Correct Answer: C

****2. What is a "zero-day exploit"?**

- A. An exploit that targets zero-day vulnerabilities in a system.
- B. An exploit that has been known for a long time and is easily patched.
- C. An exploit that utilizes a vulnerability unknown to the vendor and without a patch available.
- D. An exploit that only affects systems with a zero-day operating system.

Correct Answer: C

****3. Which security protocol is primarily used for secure communication over a network and relies on digital certificates for authentication?**

- A. SSH
- B. FTP
- C. Telnet
- D. SMTP

Correct Answer: A

****4. What type of attack involves exploiting a vulnerability in a web application to inject malicious SQL code into a database?**

- A. Cross-Site Scripting (XSS)
- B. SQL Injection

C. Denial-of-Service (DoS)

D. Man-in-the-Middle (MitM)

Correct Answer: B

****5. What does the term "polymorphic malware" refer to?****

A. Malware that infects multiple operating systems.

B. Malware that encrypts files and demands a ransom.

C. Malware that changes its code frequently to evade detection.

D. Malware that spreads through network shares.

Correct Answer: C

****6. Which of the following is NOT a common method for achieving multi-factor authentication (MFA)?****

A. Something you know (password)

B. Something you have (security token)

C. Something you are (biometrics)

D. Something you see (website logo)

Correct Answer: D

****7. What is a honeypot in the context of cybersecurity?****

A. A decoy system designed to attract and trap attackers.

B. A type of firewall that blocks malicious traffic.

C. A software program that scans for vulnerabilities.

D. A hidden network segment used for internal communication.

Correct Answer: A

****8. What is the purpose of a digital signature?****

A. To encrypt data for confidentiality.

B. To verify the authenticity and integrity of digital data.

C. To anonymize network traffic.

D. To prevent denial-of-service attacks.

Correct Answer: B

****9. What does "lateral movement" refer to in the context of a cyberattack?****

A. The initial penetration of a network.

B. The movement of an attacker within a compromised network to access other systems and data.

C. The process of encrypting data before transmission.

D. The disabling of security cameras.

Correct Answer: B

****10. Which security principle focuses on restricting access to information and resources based on the principle of least privilege?****

A. Availability

B. Confidentiality

C. Integrity

D. Authorization

Correct Answer: D