Advanced Cybersecurity Knowledge Assessment for Middle School

Cybersecurity · Practice Test · 8 Questions

1. Which encryption algorithm is commonly used for securing web traffic (HTTPS) and relies on the difficulty of factoring large prime numbers?

A) AES (Advanced Encryption Standard)
B) DES (Data Encryption Standard)
C) RSA (Rivest-Shamir-Adleman)
D) Blowfish

2. In the context of network security, what does the acronym VPN stand for and what is its primary function?

A) Virtual Private Network; to increase internet speed
B) Verified Private Network; to authenticate users
C) Virtual Private Network; to create a secure, encrypted connection over a public network
D) Verified Public Network; to broadcast public data

3. What is a 'phishing' attack, and what is its typical objective?

A) A method of encrypting data to prevent unauthorized access; to protect sensitive information
B) A type of malware that locks user files; to demand ransom
C) An attempt to trick individuals into revealing sensitive information, such as usernames and passwords; to gain unauthorized access or financial gain
D) A process of digitally signing documents; to verify authenticity

4. Which cybersecurity concept refers to the process of converting readable data into an unreadable format, requiring a key to decode?

A) Authentication
B) Authorization
C) Encryption
D) Hashing

5. What is a 'firewall' in computer networking, and what is its main purpose?

A) A type of antivirus software that scans for viruses
B) A device or software that monitors and controls incoming and outgoing network traffic based on predetermined security rules
C) A secure storage location for passwords
D) A tool used to speed up internet connections

6. What does the acronym 'DDoS' refer to in cybersecurity, and what is its primary effect on a service?

A) Data Denial of Service; it corrupts data on a server
B) Distributed Denial of Service; it overwhelms a server with traffic, making it unavailable
C) Direct Data Security; it encrypts all data streams
D) Dynamic Device Security; it manages device permissions

7. What is the purpose of a 'strong password' in cybersecurity?

A) To be easily remembered by the user, typically short and common words
B) To be a unique combination of uppercase and lowercase letters, numbers, and symbols, making it harder to guess
C) To be a password that is changed every day without fail
D) To be shared with trusted friends to remember it easily

8. Which of the following is an example of 'social engineering' in cybersecurity?

A) Installing the latest operating system updates
B) Using two-factor authentication for logins
C) A scammer impersonating a company representative to gain access to sensitive information
D) Scanning a network for vulnerabilities using specialized software