

Middle School Cybersecurity Fundamentals

Cybersecurity · Answer Key · 20 Questions

1. Which of the following is the primary purpose of a firewall in a computer network?

- A) To speed up internet connection
- B) To filter incoming and outgoing network traffic based on security rules**
- C) To increase the storage capacity of a hard drive
- D) To automatically update operating system software

2. What does the term 'phishing' refer to in the context of cybersecurity?

- A) A technique used to physically clean computer hardware
- B) A method of using deceptive emails to steal sensitive information**
- C) A process for cooling down server rooms
- D) A hardware tool used to restrict access to USB ports

3. Which of the following creates the strongest password based on standard security practices?

- A) A sequence of numbers like 12345678
- B) A password using the user's pet name and birth year
- C) A mix of uppercase letters, lowercase letters, numbers, and symbols**
- D) The word 'password' followed by the current year

4. What is the main function of 'two-factor authentication' (2FA)?

- A) To require two different passwords for the same account
- B) To provide an extra layer of security beyond just a password**
- C) To force a user to log in twice every hour
- D) To allow two people to share one user account

5. What does HTTPS stand for in a website's URL?

- A) Hypertext Transfer Protocol Secure**
- B) High Tech Total Protection System
- C) Hyperlink Technical Transmission Security
- D) Home Transfer Total Protocol Service

6. Which action is considered a form of 'malware'?

- A) Using a secure web browser
- B) Installing a legitimate software update
- C) A computer virus designed to damage or gain unauthorized access**
- D) Encrypting personal files for backup

7. What does the 'S' in HTTPS represent in terms of data transmission?

- A) Standard
- B) System
- C) Secure**
- D) Software

8. What is a 'botnet' in the context of cyber threats?

- A) A group of internet-connected devices infected with malware and controlled as a group**
- B) A legitimate tool for managing automated office tasks
- C) A type of physical robot used to protect server rooms
- D) A secure network used by large corporations

9. Why should software updates and 'patches' be installed promptly?

- A) To change the visual appearance of the desktop
- B) To fix security vulnerabilities that could be exploited by attackers**
- C) To increase the physical weight of the hardware
- D) To add new advertising to the computer

10. What is a 'keylogger'?

- A) A device used to lock doors in a data center
- B) A software tool that records every keystroke made on a computer**
- C) A program that cleans temporary files from a hard drive
- D) A type of high-speed internet connection

11. What is the purpose of an 'encrypted' connection?

- A) To make a file easier to delete
- B) To hide data so it can only be read by authorized parties with the correct key**
- C) To allow multiple users to edit a document simultaneously
- D) To increase the resolution of images sent over the internet

12. Which of the following describes a 'social engineering' attack?

- A) Manipulating people into divulging confidential information**
- B) Creating a physical barrier around a server
- C) Writing complex computer code to hack a system
- D) Upgrading network hardware to improve security

13. What is the primary risk of using 'public Wi-Fi' without a VPN?

- A) The internet speed is always too slow to use
- B) Data transmitted over the network could potentially be intercepted**
- C) It will automatically delete all files on your device
- D) It prevents the use of social media websites

14. What does 'privacy setting' refer to on a social media platform?

- A) The brightness level of the screen
- B) Controls that determine who can view a user's content and profile information**
- C) The font size used for reading posts
- D) The volume setting for video playback

15. What is a 'strong' practice when managing digital identity?

- A) Using the same password for every single account
- B) Sharing your login credentials with close friends
- C) Using unique passwords for different websites and services**
- D) Writing passwords on sticky notes attached to the monitor

16. Which of the following is an example of a biometric security measure?

- A) Entering a four-digit PIN
- B) Using a physical key to unlock a server cabinet
- C) Fingerprint or facial recognition scanning**
- D) Typing a secret phrase into a keyboard

17. What is the purpose of a 'backup' in cybersecurity?

- A) To increase the processor speed of a computer
- B) To create a copy of data to protect it against loss or corruption**
- C) To hide information from the operating system
- D) To bypass firewall restrictions

18. What is 'ransomware'?

- A) A type of malware that locks a user's files until a payment is made**
- B) A software used to organize digital photos
- C) A security program that deletes viruses
- D) A hardware device that increases internet speed

19. What does 'DDoS' stand for in cybersecurity?

- A) Direct Data Output System
- B) Distributed Denial of Service**
- C) Digital Device Operating Software
- D) Data Delivery Optimization Service

20. Which of the following is considered 'personally identifiable information' (PII)?

- A) A random generated username
- B) A social security number or tax file number**
- C) The brand of a computer monitor
- D) The date a software was installed