

Name _____

Guardians of the Digital Realm: Blockchain's Battle Against Hacking

Multiple Choice Questions

1. What is the primary advantage of blockchain's decentralized nature regarding security?
 - a) It makes blockchain faster.
 - b) It allows for centralized control.
 - c) It provides resistance to attacks on central authorities.
 - d) It eliminates the need for cryptography.

2. Which cryptographic feature of blockchain ensures that data remains tamper-resistant and accessible only to authorized parties?
 - a) Transparency
 - b) Consensus Mechanisms
 - c) Decentralization
 - d) Cryptography

3. What is the main challenge in a 51% attack on a Proof of Work blockchain?
 - a) Gaining control of more than 51% of the network's computing power.
 - b) Manipulating transactions without being noticed.
 - c) Phishing users to reveal their private keys.
 - d) Exploiting smart contracts.

4. What is a smart contract, and why can it have vulnerabilities?
 - a) A digital wallet for storing cryptocurrencies; it is vulnerable to hacking.
 - b) A self-executing contract with terms written into code; vulnerabilities can arise from incorrect coding.
 - c) A method of achieving consensus on the blockchain; it is vulnerable to manipulation.
 - d) A type of blockchain encryption; it can be bypassed by skilled hackers.

5. Why is user behavior crucial for maintaining blockchain security?
 - a) Users can change the consensus mechanisms.
 - b) Users can directly control the blockchain's computing power.
 - c) Users must secure their private keys and be vigilant against threats.
 - d) Users can modify the cryptographic algorithms used in blockchain.

