Quiz

Blockchain Basics

1. Who created Bitcoin, the first application of blockchain technology?
2. What year was blockchain technology introduced?
3. What problem does blockchain solve in digital transactions?
4. What is the role of a decentralized system in blockchain?
5. Name three industries besides cryptocurrency where blockchain has been applied.
6. What is a distributed ledger in blockchain?
7. What makes blockchain records immutable?
8. How does blockchain redefine trust and ownership?
9. Why is transparency important in blockchain systems?
10. What are the benefits of decentralization in blockchain?
11. Blockchain Market and Growth
12. What is the expected market size of blockchain by 2027?
13. What is the CAGR (Compound Annual Growth Rate) of blockchain technology from 2022 to 2027?
14. How has blockchain job demand increased in recent years?
15. Why are companies seeking blockchain developers skilled in smart contract development?
16. How does blockchain integrate with legacy systems?
17. What is the predicted growth of the smart contract market size by 2028?
18. Which industries are driving demand for blockchain developers?
19. How has decentralized finance (DeFi) affected blockchain adoption?

20. What role do NFTs play in blockchain's growing demand?

Blockchain Fundamentals

21. Define decentralization in blockchain.

22. How does decentralization improve security?

23. What is the primary purpose of consensus mechanisms in blockchain?

24. Name two popular consensus mechanisms.

25. What is a Merkle Tree?

26. What is the Merkle Root?

27. How does hashing optimize blockchain data storage?

28. What is a cryptographic hash function used for?

29. How does hashing ensure blockchain immutability?

30. Why is data validation faster with Merkle Trees?

Distributed Ledger Systems

31. What is the purpose of a distributed ledger?

32. How does a distributed ledger ensure consistency in data?

33. What is the role of consensus mechanisms in distributed ledgers?

34. Why is a central administrator unnecessary in distributed ledgers?

35. How does data immutability enhance trust in distributed ledgers?

36. What does each node in a distributed ledger hold?

37. What does "trustless environment" mean in blockchain?

38. How does a distributed ledger differ from a traditional database?

39. How do nodes agree on the validity of transactions?

40. What are the advantages of synchronization across multiple locations?

Virtual Machines and Smart Contracts

41. What is a virtual machine?

42. How does a virtual machine operate within a blockchain network?

43. Why are virtual machines critical for blockchain applications?

44. What makes Ethereum Virtual Machine (EVM) important for developers?

45. How does a smart contract function?

46. What is the relationship between smart contracts and decentralized apps (dApps)?

47. What advantages do automated smart contracts provide to businesses?

48. What industries use smart contracts the most?

49. What is the role of gas fees in executing smart contracts?

50. How do EVM-compatible chains expand blockchain functionality?