

**BLOCKCHAIN TECHNOLOGY**  
**UNIT 1: INTRODUCTION TO BLOCKCHAIN**  
**QUESTION BANK**

1. Describe Blockchain.
2. What is the need for blockchain?
3. Explain the working of blockchain.
4. What is a ledger? Explain the centralized and distributed ledger.
5. Differentiate between Centralized and Distributed ledger.
6. How does Distributed ledger proposals differ?
7. With a neat diagram explain the structure of blockchain.
8. Define Merkle Root. What is its purpose?
9. Define Nonce. What is its purpose?
10. How is Merkle root calculated?
11. Describe Merkle Tree.
12. What are the uses of Merkle root?
13. Explain the data structure of blockchain.
14. Explain data distribution in Blockchain.
15. Differentiate between Full replication and partial replication process in distributed systems.
16. What is Data sharding? What is the advantage of data sharding?
17. Explain data distribution algorithms Gossip protocol and Floodfill Algorithm in Blockchain network.
18. Write a note on Publish-Subscribe (Pub-Sub) Model.
19. What is Block validation?
20. Describe the steps involved in block validation.
21. What are block validators? Name them.
22. Write a note on Proof of Work.
23. Write a note on Proof of Stake.
24. List the advantages of Proof of Work.
25. Write a note on Proof of Burn.
26. Explain Proof of Activity.



27. Explain Proof of Elapsed Time.
28. What are the key features of Public blockchains?
29. List advantages and disadvantages of Public blockchains.
30. What are the key characteristics of private blockchains?
31. List advantages and disadvantages of private blockchains.
32. What are the key features of Consortium (Federated) Blockchain?
33. List the advantages and disadvantages of consortium blockchain.
34. What are the key features of Hybrid Blockchain?
35. List the advantages and disadvantages of Hybrid blockchain.
36. Compare and contrast the various types of blockchains.
37. Write a note on Cryptocurrency.
38. Explain the working of cryptocurrencies.
39. List some examples of Cryptocurrencies.
40. What are the steps involved in buying cryptocurrency.
41. How is cryptocurrency stored?
42. Differentiate between hot wallet storage and cold wallet storage.
43. Write a note on Bitcoin.
44. What are the steps involved in Bitcoin transactions.
45. Write a note on Bitcoin mining.
46. List advantages of Blockchain.
47. List disadvantages of Blockchain.
48. Give any two use cases of Blockchain.
- 49.





Edit with WPS Office