

Week 1

Here are 15 important questions based on the Week 1 lectures, covering key concepts:

Lecture 1: The Model of Decentralization

1. **(3 Marks)** What is a blockchain?
2. **(4 Marks)** Explain the concept of decentralization in the context of blockchain.
3. **(5 Marks)** Describe a use case of Blockchain in supply chain management.

Additional General Questions on Blockchain Fundamentals

4. **(3 Marks)** What is the difference between a centralized and a decentralized system?
5. **(4 Marks)** Explain why blockchain technology is considered immutable.
6. **(5 Marks)** Describe the key components of a blockchain.
7. **(3 Marks)** What is a distributed ledger?
8. **(4 Marks)** Explain the difference between a public and a private blockchain.
9. **(5 Marks)** Describe the potential applications of blockchain technology beyond cryptocurrencies.
10. **(3 Marks)** What is a cryptocurrency?
11. **(4 Marks)** Explain the role of cryptography in blockchain technology.
12. **(5 Marks)** Describe the advantages and disadvantages of blockchain technology.
13. **(3 Marks)** What is a hash function?
14. **(4 Marks)** Explain the concept of a Merkle Tree and its use in blockchain.
15. **(5 Marks)** Describe how hash pointers are used to maintain the integrity of a blockchain.