

K. J. Somaiya College of Engineering, Mumbai-77

(Autonomous College Affiliated to University of Mumbai)

End Semester Exam

NOV-DEC 2021

Max. Marks: 50**Duration: 1 Hr. 45 Min.**

Class: LY B.Tech.

Name of the Course: Block Chain Technology

Course Code: 2UCE714

Semester: VII

Branch: COMP

Instructions:

- (1) **All questions are compulsory**
- (2) **Draw neat diagrams**
- (3) **Assume suitable data if necessary**

Question No.	Questions	Max Marks
Q1 (A)	Objective type questions: 1. Name the Hashing algorithm used in Bitcoin protocol. 2. In Solidity, what is a standard notation used for representing identifiers? 3. What is the use of Gas in Ethereum blockchain. 4. What is Mining in blockchain? 5. Compare soft fork and hard fork. 6. Fill in the blank: 1 Ether = ____ GWei ? 7. What is an Ommer block ? 8. In Ethereum, once a smart contract is deployed it is immutable. True or False? 9. When is the difficulty level adjusted in Ethereum? 10. Give one example use of address data structure in solidity.	10
Q1 (B)	Attempt any FIVE questions out of the following: 1. Explain integrity, authenticity, and non-repudiation properties of blockchain. 2. Compare private, public and consortium blockchains. 3. What is double spending? How it is solved. 4. Discuss the advantage of merkle tree in block headers. 5. What is the purpose of a smart contract? Give one suitable example. 6. Give structure of smart contract in solidity language. 7. List different access modifiers in solidity and give their significance in Application development.	10
Q. 2	Compare and contrast various consensus models in blockchain. OR Discuss Ethereum Block Header and significance of various fields in that block header.	10
Q. 3	Compare and contrast Bitcoin and Ethereum blockchain. OR Discuss various best practices for application development in blockchain.	10
Q. 4	Discuss the development process of a smart contract and Dapp for any application in blockchain environment.	10