



School of Computer Science and Engineering

Fall Semester 2024-25

CAT I

SLOT: G2 + TG2

Programme Name & Branch: B.Tech – CSE, BKT

Course Name & Code: Foundations of Blockchain Technology BCSE324L

Class Number (s): VL2024250101401, VL2024250101404

Faculty Name (s): Sendhil Kumar K.S, Niha K

Exam Duration: 90 Mins.

Maximum Marks: 50

Q. No.	Question	Max Marks	CO	BL
1.	Explain the concept of decentralization in the context of Blockchain architecture with a neat diagram. How does decentralization contribute to the security and trustworthiness of a Blockchain network?	10	CO1	BL1
2.	Explain the role of consensus algorithms in Blockchain networks and provide a detailed description of how consensus mechanisms operate in Byzantine algorithms with various scenarios.	10	CO1	BL3
3.	a) Discuss in detail about Distributed Ledger Technology (DLT) and explain its core actors and components. b) Discuss in detail about DLT ecosystem.	5 5	CO2	BL2
4.	Elucidate the different type of accounts and the concept of "gas" in the context of Ethereum transactions. Explain how gas fees are determined and their role in ensuring the security and efficiency of the Ethereum network.	10	CO2	BL1
5.	Discuss in detail about working of keyless technologies and explain how it transforms traditional security measures and access controls?	10	CO2	BL3