K. J. Somaiya Institute of Technology, Sion, Mumbai-22
(Autonomous College Affiliated to University of Mumbai)

May-June 2026 B. Tech Program: LY B. Tech. (Honours Course) (Sem-VIII) (Regular) Scheme II Course Code: HBCC801 and Course Name: DeFi (Decentralized Finance) Date of Exam: 29/05/2026 Duration: 2.5 Hours Max. Marks: 60

Instructions:
(1) All questions are compulsory.
(2) Draw neat diagrams wherever applicable.
(3) Assume suitable data, if necessary.

Qu. No.	Question	Max. Marks	CO	BT level
Qu-1	Solve any **TWO** questions out of three: (05 marks each)	**10**		
a)	Explain DAO (Decentralized Autonomous Organization) in detail.	5	CO6	U
b)	Explain Transaction mechanics in DeFi.	5	CO3	U
c)	Explain the concept of Centralized Finance (CeFi) and Decentralized Finance (DeFi). Discuss their key characteristics with suitable examples.	5	CO1	U
Qu-2	Solve any **TWO** questions out of three: (05 marks each)	**10**		
a)	Discuss the major problems solved by Decentralized Finance (DeFi). Explain how DeFi improves transparency, accessibility, cost efficiency, and financial inclusion compared to traditional financial systems.	5	CO2	U
b)	Explain in detail the Risks and Challenges in DeFi, including technical, liquidity, centralization, and regulatory risks.	5	CO4	U
c)	Describe the UniSwap Protocol, including swaps, pools, smart contracts, and ecosystem participants.	5	CO5	U
Qu-3	Solve any **TWO** questions out of three. (10 marks each)	20		
a)	Draw and explain architecture of Defi. Give any two examples.	10	CO1	U
b)	Explain DeFi Protocols, Rulesets and Algorithms.	10	CO4	U
c)	Explain Decentralized Insurance with real time examples. Explain UniSwap Core Concepts.	10	CO6	U
Qu-4	Solve any **TWO** questions out of three. (10 marks each)	20		
a)	Explain the major DeFi Components in detail. Discuss the role of Blockchain, Cryptocurrency, Smart Contract Platforms, Oracles, Stablecoins, and Decentralized Applications in the DeFi ecosystem.	10	CO2	U
b)	Discuss different Incentive Mechanisms in DeFi. Explain staking rewards, slashing mechanisms, direct rewards, keepers, and fee-based incentives with suitable examples.	10	CO3	U

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c)	Explain the Compound Protocol, including interest rate mechanism, borrowing, liquidation, and governance.	10	CO5	U

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