Name: **Enrolment No:**	

UPES

End Semester Examination, May 2024

Course: B.TECH(CSE+BT-H/HN) **Semester: VI**

Program: Public Blockchain- Ethereum **Time: 03 hrs.**

Course Code: CSBL3005 **Max. Marks: 100**

Instructions:

SECTION A
(5Qx4M=20Marks)

S. No.		Marks	CO
1	Explain why Ethereum is suitable for DAOs	**4**	**CO3**
2	What is Ethereum wallet. Explain different types of Ethereum wallets.	**4**	**CO2**
3	Suppose the baseFeePerGas is 150 gwei, maxPriorityFeePerGas is 20 gwei and simple transfer transactions require 21000 units of gas. How much Bob will need to pay to send Alice 2 ETH. Also compute base fee that will be burned for this transaction and validator's tip.	**4**	**CO4**
4	Discuss Ethereum state transition function.	**4**	**CO1**
5	Compare Consensus clients and execution clients in Ethereum system.	**4**	**CO2**
	SECTION B **(Answer Any Four. 4Qx10M= 40 Marks)**		
6	What are Non-fungible tokens (NFTs). How a NFT network is different from the internet today.	**10**	**CO4**
7	Define two important denominations of ether. Also explain the process of transferring and querying ether.	**10**	**CO2**
8	Define different types of Ethereum transactions. Explain the lifecycle of Ethereum transaction.	**10**	**CO4**
9	Discuss different types of execution layer and consensus layer synchronization modes.	**10**	**CO2**
10	Explain different types of Ethereum accounts. Discuss key differences between these accounts.	**10**	**CO3**
	SECTION-C **(Answer Any Two. 2Qx20M=40 Marks)**		
11	Discuss with the help of diagram the requirement of third party services in DApps architecture.	**20**	**CO2**
12	Explain the role of meta mask in DApps architecture. Discuss in detail the development process of DApps.	**20**	**CO2**

13	Explain different categories of Ethereum network. Discuss the importance of Ethereum testnet. Describe two important public testnets for clients.	**20**	**CO3**