Roll No. ☐☐☐☐☐☐☐☐☐☐☐

PRESIDENCY UNIVERSITY

BENGALURU

Mid - Term Examinations – October 2025	
Date: 29-10-2025	**Time:** 02.30pm to 04.00pm

School: SOCSE	**Program**: B.Tech CSE	
Course Code: CSE2019	**Course Name:** Foundations of Blockchain Technology	
Semester: VII	**Max Marks**:50	**Weightage**:25%

CO - Levels	CO1	CO2	CO3	CO4	CO5
Marks	24	26	-	-	-

Instructions:

    (i) *Read all questions carefully and answer accordingly.*

    (ii) *Do not write anything on the question paper other than roll number.*

Part A

Answer ALL the Questions. Each question carries 2 marks.   **5Q x 2M=10M**

1	Explain any two limitations of blockchain technology.	**2 Marks**	**L2**	**CO1**
2	Mention any two real-world applications of blockchain.	**2 Marks**	**L1**	**CO1**
3	Discuss possible reasons for the fork to occur.	**2 Marks**	**L2**	**CO2**
4	List any two differences between Proof of Work (PoW) and Proof of Stake (PoS)**.**	**2 Marks**	**L1**	**CO2**
5	Explain Proof of Stake (PoS) along with the suitable example.	**2 Marks**	**L2**	**CO2**

Part B

		Answer the Questions.	**Total Marks 40M**		
6.	a.	Explain the benefits and limitations of blockchain technology in real-world applications	**10 Marks**	**L2**	**CO1**
		Or			
7.	a.	Discuss the step-by-step process of how a transaction is	**10 Marks**	**L2**	**CO1**

		created, validated and added to the blockchain.			

8.	a.	Compare and contrast the different types of blockchains - Public, Private, Consortium, and Hybrid with suitable examples.	**10 Marks**	**L2**	**CO1**
		Or			
9.	a.	Discuss the history and evolution of blockchain, beginning with Bitcoin to modern smart contract platforms.	**10 Marks**	**L2**	**CO1**

10.	a.	Discuss the different types of consensus mechanisms used in blockchain. Compare Proof of Work (PoW), Proof of Stake (PoS), and Proof of Authority (PoA).	**10 Marks**	**L2**	**CO2**
		Or			
11.	a.	Explain key challenges faced in achieving distributed consensus in blockchain networks? Suggest possible solutions.	**10 Marks**	**L2**	**CO2**

12.	a.	Discuss on-chain and off-chain governance in blockchain. Explain their mechanisms, advantages, and disadvantages.	**10 Marks**	**L2**	**CO2**
		Or			
13.	a.	Explain blockchain forks along with suitable examples and their impact on the blockchain network.	**10 Marks**	**L2**	**CO2**