Roll No.												

PRESIDENCY UNIVERSITY

BENGALURU

End - Term Examinations – December 2025

Date: 24- 12-2025 **Time:** 09:30am – 12:30pm

School: SOM-PG	**Program:** MBA	
Course Code : MBA3119	**Course Name:** Blockchain & Cryptocurrency	
Semester: III	**Max Marks**: 100	**Weightage**: 50%

CO - Levels	CO1	CO2	CO3	CO4	CO5
Marks	29	31	34	31	

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 3 marks. **10Q x 3M=30M**

1.	Apply the concept of distributed ledgers to explain how record-keeping differs from traditional databases.	**3 Marks**	**L2**	**CO1**
2.	Demonstrate how hashing secures transactions in a blockchain.	**3 Marks**	**L2**	**CO1**
3.	How would you verify a block's authenticity using a block explorer?	**3 Marks**	**L2**	**CO1**
4.	Apply smart contract logic to automate salary payments for employees.	**3 Marks**	**L3**	**CO2**
5.	Suggest how stablecoins can minimize volatility in crypto markets.	**3 Marks**	**L3**	**CO2**
6.	Explain how blockchain can be used to trace food items in a retail supply chain.	**3 Marks**	**L4**	**CO3**
7.	Apply blockchain to improve cross-border remittance efficiency.	**3 Marks**	**L4**	**CO3**
8.	How can blockchain automate claims settlement in the insurance sector?	**3 Marks**	**L4**	**CO3**
9.	Illustrate how a DAO can improve transparency in governance.	**3 Marks**	**L5**	**CO4**
10.	Show how blockchain and AI can integrate to prevent financial fraud.	**3 Marks**	**L5**	**CO4**

Part B

Answer the Questions. **Total Marks 40M**

11.	**a.**	Explain the evolution of money and its transition to digital assets.	**10 Marks**	**L2**	**CO1**
		Or			
12.	**a.**	Analyze consensus mechanisms (PoW, PoS, and hybrid) with examples	**10 Marks**	**L2**	**CO1**

13.	**a.**	Examine Ethereum's architecture and execution of smart contracts.	**10 Marks**	**L3**	**CO2**
		Or			
14.	**a.**	Discuss opportunities and risks in ICOs and STOs.	**10 Marks**	**L3**	**CO2**

15.	**a.**	Illustrate blockchain use in supply chains with reference to Walmart and Maersk.	**10 Marks**	**L4**	**CO3**
		Or			
16.	**a.**	Analyze blockchain applications in healthcare and digital identity management.	**10 Marks**	**L4**	**CO3**

17.	**a.**	Evaluate the challenges of crypto regulation in India.	**10 Marks**	**L5**	**CO4**
		Or			
18.	**a.**	Compare DAOs and traditional governance models	**10 Marks**	**L5**	**CO4**

Part C

Answer all the Questions. Each question carries 15marks **2Q x 15M=30M**

19.	**a.**	Case 1: Blockchain for Food Safety – Walmart's Traceability Initiative Walmart partnered with IBM to build a blockchain-based food traceability system to track mangoes and pork from source to shelf. Prior to blockchain, tracing the origin of a food item took nearly 7 days; after implementation, it was reduced to 2.2 seconds. The system stores every transaction—from farmer, processor, distributor, and retailer—on a distributed ledger. **Questions:** **a.** Evaluate how blockchain enhances transparency and consumer trust in food safety.	**15 Marks**	**L3** **L4** **L5**	**CO2** **CO3** **CO4**

		b. Identify key operational benefits and challenges Walmart faced during implementation. **c**. Discuss how this initiative aligns with ESG and sustainability objectives.			

20.	**a.**	Case 2: Bitcoin's Emergence After the 2008 Financial Crisis Bitcoin was launched in 2009 in response to the 2008 global financial crisis, when trust in centralized banking collapsed. It introduced a decentralized, peer-to-peer network allowing transactions without intermediaries. Over time, Bitcoin evolved as both a digital currency and a store of value. Questions: **a**. Explain how Bitcoin's design addressed the problems of centralized financial systems. **b.** Analyze the implications of Bitcoin's mining model for economic decentralization. **c.** Critically assess Bitcoin's role in shaping the evolution of the blockchain ecosystem	**15 Marks**	**L3** **L4** **L5**	**CO2** **CO3** **CO4**