



Even Semester End Term Examination, May / June 2026

Date: 18/05/2026

Time: 01.00 PM - 04.00 PM

Course Code: MBA3119

Course Name: Blockchain and Cryptocurrency

Semester: Fourth Semester

Max. Marks: 100

Weightage: 50%

CO - Levels	CO1	CO2	CO3	CO4
Marks	29	26	44	41

Part A: Answer Following Questions. 30 M

Qn.No	Questions	M	CO	BT
1	Explain how blockchain prevents fraud in financial auditing.	3	CO1	BT2
2	Describe how cryptographic hashing ensures data integrity in a blockchain network	3	CO1	BT2
3	Explain the purpose and process of using a block explorer to investigate a suspicious transaction on Ethereum.	3	CO1	BT2
4	Explain the process by which smart contract logic automates payments for content creators on a streaming platform.	3	CO2	BT2
5	Describe how decentralized exchanges (DEXs) overcome the limitations of centralized trading platforms.	3	CO2	BT2
6	Describe how blockchain can be used in automating carbon credit trading and verification.	3	CO3	BT2
7	Explain how blockchain enables tracking of conflict-free minerals from mine to market.	3	CO3	BT2
8	Describe how blockchain secures IoT device identities in a smart city infrastructure	3	CO3	BT2
9	Explain how Web3 principles enable a decentralized freelance marketplace without platform fees.	3	CO4	BT2
10	Describe how blockchain enhances Anti-Money Laundering (AML) compliance through immutable audit trails.	3	CO4	BT2

Part B: Answer Any 1 Following Questions. 10 M

Qn.No	Questions	M	CO	BT
11	Apply your understanding of a blockchain block to construct a labeled diagram of its key components.	10	CO1	BT3
12	Analyze how this hybrid approach balances security, scalability, and decentralization with at least two industry examples.	10	CO1	BT4

Part C: Answer Any 1 Following Questions. 10 M

Qn.No	Questions	M	CO	BT
13	Apply Ethereum's architecture and governance model to propose a suited Ethereum-based solution for a specific enterprise use case (e.g., supply chain or identity management).	10	CO2	BT3
14	Apply your knowledge of token-based fundraising models to design a token-sale structure (ICO/STO/IEO) for a hypothetical project.	10	CO2	BT3

Part D: Answer Any 1 Following Questions. 10 M

Qn.No	Questions	M	CO	BT
15	Explain blockchain use in cross-border payments with reference to RippleNet and Stellar. Analyze how these solutions address challenges in traditional remittance systems.	10	CO3	BT4
16	Analyze blockchain applications in healthcare for electronic health records and clinical trial integrity. Discuss the role of digital identity in this context.	10	CO3	BT4

Part E: Answer Any 1 Following Questions. 10 M

Qn.No	Questions	M	CO	BT
17	Compare challenges of crypto regulation in India with the EU's MiCA framework.	10	CO4	BT3
18	Compare Decentralized Autonomous Organizations (DAOs) with traditional corporate governance models. Analyze their relative strengths and weaknesses in decision-making and accountability.	10	CO4	BT3

Part F: Answer Following Questions. 30 M

Qn.No	Questions	M	CO	BT
19	A multinational corporation is planning to deploy a blockchain solution for its global supply chain network involving over 10,000 suppliers, real-time IoT data from shipping containers, and cross-border payments in multiple currencies. The IT team must choose between a public blockchain (offering decentralization and transparency), a private permissioned blockchain (offering speed and privacy), or a hybrid model. Key concerns include transaction throughput (scalability), connecting with partners using different blockchain platforms (interoperability), and meeting corporate ESG commitments regarding energy consumption. Questions: a. Analyze the trade-offs between scalability, interoperability, and energy consumption in blockchain architecture choices. b. Evaluate which blockchain architecture (public, private, or hybrid) would best suit this corporation's needs. c. Suggest strategies to overcome interoperability challenges and ensure sustainability goals are met in the proposed solution.	15	CO3	BT4
20	In 2016, The DAO (Decentralized Autonomous Organization) was launched on Ethereum as a decentralized venture capital fund, raising over \$150 million worth of Ether. A vulnerability in its smart contract code allowed an attacker to drain approximately \$70 million in Ether through a reentrancy attack. The Ethereum community was divided on how to respond, leading to a controversial hard fork that reversed the hack and created Ethereum (ETH) and Ethereum Classic (ETC). This incident became a pivotal moment for blockchain governance and smart contract security. Questions: a. Explain how the reentrancy attack exploited the DAO's smart contract logic. b. Analyze the governance dilemma faced by the Ethereum community following the hack. What does this reveal about the principle of "code is law"? c. Critically assess the lessons learned from The DAO hack for smart contract development, auditing, and decentralized governance.	15	CO4	BT4