Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA INTEGRATED– SEMESTER VII- EXAMINATION –WINTER-2022

Subject Code: 2678605   **Date: 04/01/2023**
Subject Name: Block Chain Technology
Time: 02:30 PM TO 05:00 PM   **Total Marks: 70**
Instructions:

    1. Attempt all questions.
    2. Make Suitable assumptions wherever necessary.
    3. Figures to the right indicate full marks.

Q.1	**(a)**	What is Block chain? Explain characteristics of block chain.	07
	(b)	Explain the architecture of block chain.	07
Q.2	**(a)**	What is a hash function? Explain message authentication code in detail.	07
	(b)	What is cryptography? Explain symmetric and asymmetric cryptography.	07
		OR	
	(b)	What is supply chain management? Explain in detail.	07
Q.3	**(a)**	What is DLT? Explain DLT decentralize applications and databases.	07
	(b)	Discuss block chain impact on cloud computing. Artificial intelligence, IOT.	07
		OR	
Q.3	**(a)**	Explain smart contract with an appropriate example.	07
	(b)	What is Robotic process automation? How block chain can improve in RPA technology ?	07
Q.4	**(a)**	Explain Merkle trees.	07
	(b)	Explain Etherium block chain concept.	07
		OR	
Q.4	**(a)**	Explain block chain application in insurance sector.	07
	(b)	What is Assess Management? Explain Financial Institutional Assets in detail.	07
Q.5	**(a)**	What is Internet of Things? Explain in detail.	07
	(b)	Explain following terms	07
		(i) Bitcoin payment	
		(ii) Bitcoin clients	
		(iii) Bitcoin transactions	
		OR	
Q.5	**(a)**	Explain Byzantine agreement methods.	07
	(b)	Explain following terms	07
		(i) Bitcoin address	
		(ii) Bitcoin wallet	
		(iii) Bitcoin supply	

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