GUJARAT TECHNOLOGICAL UNIVERSITY
BE – SEMESTER- VII EXAMINATION-SUMMER 2023

Subject Code: 3171618   **Date: 30/06/2023**
Subject Name: Blockchain
Time: 10:30 AM TO 01:00 PM   **Total Marks: 70**
Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**
4. **Simple and non-programmable scientific calculators are allowed.**

			MARKS
Q.1	**(a)**	Define Blocks in Blockchain with an example.	**03**
	(b)	What are the Key features of Blockchain?	**04**
	(c)	Briefly discuss what are the different types of Smart Contracts.	**07**
Q.2	**(a)**	What are the components of Blockchain?	**03**
	(b)	Illustrate the History of Blockchain.	**04**
	(c)	Define Public Blockchain and explain it in brief.	**07**
		OR	
	(c)	Explain different types of Cryptocurrencies in detail.	**07**
Q.3	**(a)**	Define Bitcoin with an example.	**03**
	(b)	What are Smart Contracts in Ethereum?	**04**
	(c)	Explain Private Blockchain system in brief.	**07**
		OR	
Q.3	**(a)**	Define Decentralization and Distribution.	**03**
	(b)	Explain Byzantine Fault with an example.	**04**
	(c)	Discuss various Smart Contracts available in Industry.	**07**
Q.4	**(a)**	What is Corda in Consortium Blockchain? Explain.	**03**
	(b)	What is MetaMask? How it is useful in Blockchain?	**04**
	(c)	What are the challenges to be taken care for while implementing Blockchain?	**07**
		OR	
Q.4	**(a)**	Explain Ripple in Consortium Blockchain.	**03**
	(b)	Discuss Altcoin and Token.	**04**
	(c)	Discuss Key characteristics of Consortium Blockchain.	**07**
Q.5	**(a)**	Is it safe to implement Block chain in Banking Sector?	**03**
	(b)	What is Merkle tree and Merkle root?	**04**
	(c)	Discuss Applications of Blockchain in Education and Healthcare sectors.	**07**
		OR	
Q.5	**(a)**	What is crypto mining?	**03**
	(b)	Define hash in blockchain. What are the key characteristics of Hash?	**04**
	(c)	What are the limitations of Blockchain implementation?	**07**