12-Jan-2024 02:30 pm - 05:30 pm 1T00163 - M.C.A. (SEM-III) (Choice Based) (Two Year Course)(R-2021-22) / 70723 - Elective III : Blockchain QP CODE: 10044315

(3 Hours)   **Total Marks: 80**

N.B. : 1) Question No.1 is **compulsory.**
   2) Attempt any **THREE** from the remaining questions.
   3) Figures to the right indicate full marks.

Q1.	(a)	Explain the concept of Blockchain with its types.	**[20]**
	(b)	Explain Merkle Tree with Suitable example.	
	(c)	Differentiate Proof of Work and proof of Stake.	
	(d)	What do you understand by Smart Contract explain in detail?	
Q2.	(a)	Describe RAFT in detail.	**[10]**
	(b)	Explain Practical BFT with suitable example.	**[10]**
Q3.	(a)	How double spending problem is handled in bitcoin.	**[10]**
	(b)	Explain Ethereum with Ethereum mining Process.	**[10]**
Q4.	(a)	Explain Hyperledger Fabric Architecture with detail description.	**[10]**
	(b)	Describe Cryptographic Hash Function with its Properties.	**[10]**
Q5.	(a)	What do you understand by Consensus Mechanism explain with its Objectives?	**[10]**
	(b)	Describe Centralized and Decentralized systems briefly.	**[10]**
Q6.		Short Note **(Solve Any Four)**	**[20]**
	a)	Sybil Attack.	
	b)	Digital Signature.	
	c)	Proof of Burn.	
	d)	Solidity.	
	e)	Blockchain role in Supply Chain Management.	

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44315   **Page 1 of 1**