

May-June 2024
(B.Tech) Program: **Information Technology** _____ cheme I/II/III/IV: II
Regular Examination: LY Semester: VIII
Course Code: ITC801 and Course Name: **Blockchain and DLT**
Date of Exam: 14/05/2024 Duration: 02.5 Hours Max. Marks: 60

Instructions:

- (1) All questions are compulsory.
- (2) Draw neat diagrams wherever applicable.
- (3) Assume suitable data, if necessary.

		Max. Marks	CO	BT level
Q 1	Solve any six questions out of eight:	12		
i)	Discuss types of blockchain	2	CO1	Understand
ii)	What is Bitcoin	2	CO2	Understand
iii)	What is EVM in Ethereum?	2	CO3	Understand
iv)	Discuss Various Application of blockchain.	2	CO6	Understand
v)	Discuss ICO in blockchain	2	CO5	Understand
vi)	What is Permissionless Blockchain.	2	CO3	Understand
vii)	Discuss types of nodes in blockchain.	2	CO2	Understand
viii)	what is chain code in Permissioned Blockchain?	2	CO4	Understand
Q.2	Solve any four questions out of six.	16		
i)	What is Simplified Payment Verification Nodes in blockchain?	4	CO2	Understand
ii)	Discuss various components of blockchain.	4	CO1	Understand
iii)	Draw and explain Architecture of Hyperledger Fabric Blockchain.	4	CO4	Understand
iv)	Discuss blockchain in healthcare sector.	4	CO6	Understand
v)	Discuss the Opportunities and Risk in smart contract.	4	CO3	Understand
vi)	Compare ERC20 and ERC721 Tokens.	4	CO5	Analyze

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Q.3	Solve any two questions out of three.	16		
i)	Illustrate how DLT Can Replace Traditional Book-Keeping Method also Compare different DLTs.	8	CO1	Apply
ii)	Consider the Voting system and discuss the phases of the smart contract life cycle in the blockchain	8	CO3	Apply
iii)	Write a code for ERC20 token also discuss the function of components in ERC20 token.	8	CO5	Apply
Q.4	Solve any two questions out of three.	16		
i)	Illustrate the Extended Bitcoin Network, describing different node types, gateways, and protocols tailored for Insurance company.	8	CO2	Apply
ii)	Demonstrate Ethereum wallets integration with Metamask, facilitate the management of externally owned accounts (EOA) at various levels.	8	CO3	Apply
iii)	Apply the blockchain technology to supply chain of cold storage to maintain data transparent.	8	CO6	Apply
