CBCS SCHEME

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BCS613A

C.M.R. INSTITUTE OF TECHNOLOGY CMR BANGALORE - 37

Sixth Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026
Blockchain Technology

Time: 3 hrs. Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
Q.1	a.	Explain Accumulation (generating) of blocks in Blockchain.	10	L2	CO1
	b.	List the benefits and limitations of block chain technology.	10	L1	CO1
		OR			
Q.2	a.	With neat diagram explain generic structure of blockchain network.	10	L2	CO1
	b.	List any five types of blockchain and explain in brief.	10	L1	CO1
		Module – 2			
Q.3	a.	Explain in detail cryptographic primitives with diagram.	10	L2	CO2
	b.	List the categories of decentralized application and explain in brief.	10	L1	CO2
		OR			
Q.4	a.	Explain the process of Patricia tree with neat diagram.	10	L2	CO2
	b.	List the features of DAU and DAS.	10	L1	CO2
		Module – 3			
Q.5	a.	Identify the development platforms of smart contracts and explain the steps used in deploying smart contracts.	10	L3	CO3
	b.	Using neat diagram explain the structure of block.	10	L3	CO3
		OR			
Q.6	a.	Identity the components of block header and explain the same in detail.	10	L3	CO3
	b.	Using neat diagram explain the oracle working and define the same.	10	L3	CO3
		Module – 4			
Q.7	a.	Compare PoS wth PoW and justify the usage of PoS in Ethereum.	10	L4	CO4
	b.	Identify different types of Ethereum clients and explain how they work.	10	L3	CO4
		OR			
Q.8	a.	Compare types accounts used in Ethereum.	10	L4	CO4
	b.	Make use of neat diagram of EVM operation and explain the operation of EVM.	10	L3	CO4
		Module – 5			
Q.9	a.	Identify and explain the core features of Sawtooth.	10	L3	CO5
	b.	Examine the function of Transaction life cycle in hyper ledger fabric.	10	L4	CO5
		OR			
Q.10	a.	Identify Hyperledger fabric blockchain components and explain each.	10	L3	CO5
	b.	Examine the Architecture of Corda platform and explain.	10	L4	CO5

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