R22 Regulation *Subject code: 4E8EA*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech. VIII Semester Regular Examinations, May 2026

BLOCKCHAIN TECHNOLOGY

(CSE)

Maximum Marks: 60 Date:04.05.2026 Duration: 3 hours

Note: **1.This question paper contains two parts A and B.**
2. Part A is compulsory which carries 10 marks. Answer all questions in Part A.
3. Part B consists of 5 Units. Answer any one full question from each unit.
4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks *(10X1M=10 Marks)*		Marks	CO	Bloom Tx
1.a)	Define Blockchain technology.	1	1	2
b)	List types of cryptocurrencies.	1	1	1
c)	Name any two popular public blockchains.	1	2	1
d)	Mention uses of smart contracts in industry.	1	2	1
e)	List key features of consortium blockchain.	1	3	1
f)	Define Ripple.	1	3	2
g)	List Blockchain applications in healthcare.	1	4	1
h)	Define scalability in Blockchain.	1	4	2
i)	Mention Blockchain use in retail.	1	5	1
j)	Define chaincode.	1	5	2

Part-B

Answer All the following questions. *(5X10M=50Marks)*		Marks	CO	Bloom Tx
2	a) Explain the origin and evolution of Blockchain technology.	5	1	4
	b) Describe the components and working of Blockchain architecture.	5	1	3
	OR			
3	a) Explain Bitcoin and its working mechanism.	5	1	3
	b) Explain future trends and technological advancements in Blockchain.	5	1	4
4	a) Explain smart contracts and their working.	5	2	3
	b) Discuss characteristics and types of smart contracts.	5	2	4
	OR			
5	a) Explain role of oracles in Blockchain.	5	2	3
	b) Explain Smart contracts in Ethereum and industry.	5	2	2
6	a) Describe Hyperledger platform architecture.	5	3	4
	b) Explain consortium blockchain with examples.	5	3	3
	OR			
7	a) What is ICO, Explain blockchain fundraising method in detail.	5	3	5
	b) Discuss advantages and disadvantages of ICO.	5	3	3

8	a) Explain security aspects in Blockchain systems.	5	4	4
	b) Describe identity management in Blockchain.	5	4	3
	OR			
9	a) Explain regulatory and compliance issues.	5	4	4
	b) Explain Blockchain applications in supply chain and IoT.	5	4	3
10	a) Explain basics of Python for Blockchain development.	5	5	2
	b) Describe Python packages used in Blockchain.	5	5	5
	OR			
11	a) Discuss components of Hyper ledger Fabric network.	5	5	2
	b) Explain chain code development using Fabric.	5	5	5