K. J. Somaiya Institute of Technology, Sion, Mumbai-22
(Autonomous College Affiliated to University of Mumbai)

May-June 2024

(B.Tech) Program: _Honours_ Scheme I/II/IIB/III: _II_

Regular Examination: **TY** Semester: **VI**

Course Code: **HBCC601** and Course Name: **Blockchain Platform**

Date of Exam: **29/05/2024**   Duration: **2.5** 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)	List Features of Private Blockchain.	02	CO1	Understand
ii)	Explain the concept of transaction hash in blockchain.	02	CO2	Understand
iii)	Explain UTXO model for platform.	02	CO5	Understand
iv)	Explain types of accounts used in ethereum.	02	CO3	Understand
v)	Explain smart contracts.	02	CO2	Understand
vi)	What is Mining pool	02	CO6	Understand
vii)	Explain Ropsten test networks used in ethereum.	02	CO3	Understand
viii)	Explain Proof of Stake.	02	CO4	Understand
Q.2	**Solve any four questions out of six.**	**16**		
i)	Discuss the Advantages of Hyperledger Fabric Blockchain.	04	CO5, CO6	Understand
ii)	Discuss PAXOs consensus algorithm in detail.	04	CO4	Understand
iii)	Explain the concept of Gas and Gas fees used in ethereum transactions.	04	CO3	Understand
iv)	Compare private and public blockchain.	04	CO1	Analyze
v)	Discuss Blockchain in e-commerce website	04	CO6	Understand
vi)	Explain the role of EVM.	04	CO2	Understand

May-June 2024

(B.Tech) Program: _Honours__ Scheme I/II/IIB/III:_II__

Regular Examination: **TY** Semester: **VI**

Course Code: **HBCC601** and Course Name: **Blockchain Platform**

Date of Exam: **29/05/2024**   Duration: **2.5 Hours**   Max. Marks: **60**

Q.3	Solve any two questions out of three.	16		
i)	Discuss how will you apply Blockchain technology in Health Insurance Sector.	08	CO1	Understand
ii)	Explain the working of Beacon Chain also discuss the purpose of Beacon Chain in Ethereum 2.0	08	CO3	Understand
iii)	Sketch and explain the architecture of hyperledger fabric also discuss various components in hyperledger.	08	CO5	Apply
Q.4	Solve any two questions out of three.	16		
i)	Sketch and explain Corda's architecture also discuss main components of Corda's architecture.	08	CO6	Apply
ii)	Discuss various steps involved in transferring bitcoin from one wallet to another wallet.	08	CO2	Understand
iii)	Discuss the Raft Consensus Algorithm, and how does it offer benefits in comparison to other consensus algorithms.	08	CO4	Understand

****