U.S.N | | | | | | | | | |

P.E.S. College of Engineering, Mandya - 571 401
(An Autonomous Institution affiliated to VTU, Belagavi)
Seventh Semester, B.E. - Information Science and Engineering
Semester End Examination; February - 2022
Block Chain Technology

Time: 3 hrs   Max. Marks: 100

Course Outcomes

The Students will be able to:
CO1: Discover the secure and efficient transactions with Bit coin.
CO2: Identify and analyze the applications of Bit coin script.
CO3: Experiment with Bit coin mining.
CO4: Develop private Block chain environment and develop a smart contract on Ethereum.
CO5: Build the Hyper ledger architecture and the consensus mechanism applied in the Hyper ledger.

Note: **I)** PART - A *is compulsory.* **Two** *marks for each question.*
    II) PART - B: *Answer any* **Two** *sub questions (from a, b, c) for Maximum of* **18 marks** *from each unit.*

Q. No.	Questions	Marks	BLs	COs	POs
	I : PART - A	**10**			
I a.	Define the consensus mechanism by listing its types.	2	L1	CO1	PO1
b.	Define double spending and recall the number of confirmations needed for its virtual elimination.	2	L1	CO2	PO1
c.	Define RAFT and mention who's successor it is.	2	L1	CO3	PO2
d.	List two ways to prevent financial crime prevention.	2	L2	CO4	PO1
e.	List any four transaction validation.	2	L2	CO5	PO1
	II : PART - B	**90**			
	UNIT - I	**18**			
1 a.	Explain different types of block chain ledgers in real time.	9	L2	CO1	PO2
b.	Summarize the distributed consensus theory with all its featuring associates.	9	L2	CO1	PO1
c.	Explain properties of crypto graphic hash functions.	9	L2	CO1	PO2
	UNIT - II	**18**			
2 a.	List various steps involved in transaction life cycle.	9	L2	CO2	PO2
b.	Explain various tasks of bit coin miners.	9	L2	CO2	PO1
c.	List any five benefits of proof of state and proof of work each.	9	L2	CO2	PO1
	UNIT - III	**18**			
3 a.	Explain design issues of permission block chain.	9	L2	CO3	PO3
b.	Explain the benefits and limitation of block chain.	9	L5	CO3	PO2
c.	Summarize the following: i) CAP ii) ACID	9	L2	CO3	PO2

	UNIT - IV	**18**			
4 a.	Explain three things of rules required for any KYC.	9	L5	CO4	PO2
b.	Justify how mortgage plays vital part in block chain?	9	L5	CO4	PO2
c.	Explain the process of trade life cycle.	9	L5	CO4	PO3
	UNIT - V	**18**			
5 a.	Construct hyper ledger fabric architecture in support to its services.	9	L3	CO5	PO2
b.	Summarize and list the steps involved in transaction flow.	9	L2	CO5	PO2
c.	Explain the significance of smart contracts in developer interaction state.	9	L5	CO5	PO2

✳ ✳ ✳ ✳