PRIYADARSHINI COLLEGE OF ENGINEERING, NAGPUR

Dept.:CT/IT/EC/ETC/Aero/AI&DS/EE/EP

Semester VI

Subject: Open Elective-1: Blockchain Technologies

CAT- I (Session 2022-23)   SubjectCode:BTech_CSE-604.3T

Duration: 1.5 hrs

Max. Marks: - 35

Note: All questions are compulsory

Q. No.	Questions	Marks	CO	BL
1. a)	i) A blockchain is a _____ database or ledger that is shared among the nodes of a computer network. a) distributed ✓ b) centralized c) combined d) none of the above	1	CO1	1
	ii) The innovation with a blockchain is that it guarantees the fidelity and security of a record of data and generates trust without the need for a trusted third party. True or False ✓	1	CO1	1
b)	What is Blockchain? What are its key elements?	6	CO1	2
c)	Discuss about the advantages and disadvantages of blockchain.	6	CO1	2

OR

Q. No.	Questions	Marks	CO	BL
2. a)	i) Scalability is one of the biggest drawbacks of blockchain technology. True or False ✓	1	CO1	1
	ii) Blockchain removes any _____ party intervention between transactions and removes the mistake making the system efficient and faster. a) third ✓ b) first c) second d) none of the above	1	CO1	1
b)	Discuss about the blockchain architecture. Give advantages and disadvantages of each.	12	CO1	2
3. a)	i) _____ is used to identify the particular block in the entire blockchain. a) Header ✓ b) Footer c) Nonce d) Hash	1	CO2	1
	ii) Timestamp is a system verifying the data into the block and assigning a time or date of creation for digital documents. True or False ✓	1	CO2	1
b)	Write short notes on types of blockchain with their pros and cons.	12	CO2	2

OR

Q. No.	Questions	Marks	CO	BL
4. a)	i) A _____ blockchain is a concept where it is permissioned by the government and a group of organizations, not by one person like a private blockchain.	1	CO2	1

a) consortium   b) public   c) private   d) none of the above

ii) A transaction refers to a contract or agreement and transfers of assets between parties True or False	1	CO2	1

b) Explain the number Core Components of Blockchain Architecture.   5   CO2   1

c) Write short notes on applications of Blockchain.   7   CO2   2

5.   a) i) The word "crypto" literally means concealed or secret.   1   CO3   1

True or False

ii) In _____ cryptography guarantees the security of the transactions and the participants, independence of operations from a central authority, and protection from double-spending.   1   CO3   1

a) cryptocurrency   b) physical currency   c) cash   d) cheque

b) Explain the Cryptography in Cryptocurrencies.   5   CO3   1

<div align="center">OR</div>

6.   a) i) _____ keys are the most important aspect of cryptography.   1   CO3   1

a) Encryption   b) Masking   c) Digits   d) None of the above

ii) Cryptography is a technique to send secure messages between two or more participants.   1   CO3   1

a) True   b) False

b) Write short notes on Cryptography Methods Used in Cryptocurrencies.   5   CO3   2