PRIYADARSHINI COLLEGE OF ENGINEERING, NAGPUR

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

Subject: Open Elective-1: Blockchain   CAT- II (Session 2022-23)   SubjectCode:BTech_CSE-604.3T
Technologies

Duration: 1.5 hrs   Max. Marks: - 35

Note: All questions are compulsory

Q. No.	Questions	Marks	CO	BL
1. a)	i) Bitcoin was introduced to the public in _____ a) 2009 b) 2010 c) 2011 d) 2012	1	CO3	1
	ii) A Bitcoin wallet is a digital wallet that can hold Bitcoin as well as other cryptocurrencies True or False	1	CO3	1
b)	Discuss in brief about Hardness of Bitcoin Mining.	5	CO3	2

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

2. a)	i) Bitcoin was introduced to the public by an anonymous developer or group of developers using the name Satoshi Nakamoto. True or False	1	CO3	1
	ii) The _____ nature of public blockchains means that participants on the network must be able to come to an agreement as to the shared state of the blockchain. a) centralized b) decentralized c) parallel d)none of the above	1	CO3	1
b)	How does Double Spending Happen? What are its type?	5	CO3	3
3. a)	i) A Merkle tree is a binary tree formed by hash pointers, and named after its creator True or False	1	CO4	1
	ii) _____ a regular pointer stores the memory address of data a) hash pointer b) cash pointer c) slash pointer d) nounce pointer	1	CO4	1
b)	What do you understand by Bitcoin Wallet? Discuss different types.	12	CO4	3

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

4. a)	i) With a crypto wallet, you can store, send and receive different coins and tokens. True or False	1	CO4	1
	ii) One of the key characteristics of cryptocurrencies is that it allows the users	1	CO4	1

to perform _____ transactions

a) anonymous   b) ambigious   c) audible   d) none of tha above

b)	Write short notes on POW and POS.	**12**	**CO4 2**

5. a) i) _____ are the fundamental building blocks of Ethereum applications.   **1**   **CO5 1**

a) Smart contracts   b) Even contracts   c) Odd contracts   d) Double contracts

ii) Smart contracts are an exciting way to build decentralized applications (dapps) on a blockchain.   **1**   **CO5 1**

True or False

b) What do you understand by Ethereum Virtual Machine (EVM)? How Does EVM Works?   **7**   **CO5 2**

c) Discuss about pros and cons in case of EVM   **5**   **CO5 3**

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

6. a) _____ is a statically typed, contract-oriented, high-level language for implementing smart contracts on the Ethereum platform.   **1**   **CO5 1**

a) Solidity   b) Contracts   c) PoW   d) PoS

ii) Solidity is an object-oriented programming language.   **1**   **CO5 1**

Correct or Incorrect

b) Write short notes on Ethereum Solidity.   **7**   **CO5 2**

c) What are smart contracts on blockchain?   **5**   **CO5 2**