Roll No												

PRESIDENCY UNIVERSITY
BENGALURU

SCHOOL OF ENGINEERING
END TERM EXAMINATION - JAN 2023

Semester : Semester V - 2020
Course Code : CSE2020
Course Name : Sem V - CSE2020 - Blockchain Technology and Applications
Program : B.Tech. - CBC

Date : 16-JAN-2023
Time : 9.30AM - 12.30PM
Max Marks : 100
Weightage : 50%

Instructions:
(i) Read all questions carefully and answer accordingly.
(ii) Question paper consists of 3 parts.
(iii) Scientific and non-programmable calculator are permitted.

PART A

ANSWER ALL THE TEN QUESTIONS **10 X 2 = 20M**

1. Mention the different types of incentives of Blockchain.
(CO1) [Knowledge]

2. What are Merkle trees and discuss the importance of that in Blockchain?
(CO1) [Knowledge]

3. Define coinbase Transaction of BCT.
(CO2) [Knowledge]

4. Write any two limitations of Bitcoin network.
(CO2) [Knowledge]

5. Mention two types of accounts in Ethereum network.
(CO3) [Knowledge]

6. State the various fields of Ethereum block.
(CO3) [Knowledge]

7. How blockchain can help to transform the manufacturing industry?
(CO4) [Knowledge]

8. How the blockchain helps in improving the business?
(CO4) [Knowledge]

9. Discuss the different types of bitcoin Scripts.
(CO2) [Knowledge]

10. Write a formula to calculate the transcation cost in an Etherueum network?
(CO3) [Knowledge]

PART B

ANSWER ALL THE FIVE QUESTIONS **5 X 10 = 50M**

11. Explain the varipus bitcoin storage mechanisms

(CO1) [Comprehension]

12. Explain the bitcoin transcation data structure input, metadata,input and output.

(CO2) [Comprehension]

13. Classify the various types of functions. Write a smart contract to show the concept of functions

(CO3) [Comprehension]

14. Blockchain has become a driver and disruptor of adoption in the automotive domain.Summarize the use cases of automative domain

(CO4) [Comprehension]

15. List the various types of mining hardware and concept of mining pool.

(CO2,CO3) [Comprehension]

PART C

ANSWER ALL THE TWO QUESTIONS **2 X 15 = 30M**

16. Assume that you are going to store Aadhar card details in blockchain network,Which type of blockchain network is suitable for this purpose? Mention the consensus mechanism suitable for this application.Explore the process of storing the above data.

(CO1,CO2) [Application]

17. Assume a developer is creating twitter-like dApp and put it on a blockchain where any user can publish messages. Once posted, no one *can delete the* messages.Illustrate the use of Ethereum components in creating the Dapp and the benefits of dapp.

(CO3,CO4) [Application]

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