C

Duration: Three hours   Maximum: 100 Marks

Answer ALL Questions

PART A - (5 x 1 = 5 Marks)

1. What is Blockchain?   CO1- U

    (a) A Currency   (b) A centralized ledger

    (c) A type of crypto currency   (d) A distributed ledger on a peer to peer network

2. Bitcoin was created by?   CO1- U

    (a) John Mcafee   (b) Satoshi Nakamoto   (c) Alon musk   (d) None of above

3. Who introduced the digital Crypto Currency Known as Ethereum?   CO1- U

    (a) Satoshi Nakamoto   (b) Wei Dai   (c) Nick Szabo   (d) Vitalik Butrin

4. What are the potential applications of blockchain   CO1- U

    (a) Voting   (b) Settling Trades   (c) Health Records   (d) All of the Above

5. How do you interact with accounts of a Dapp from a browser?   CO1- U

    (a) Through Ganache   (b) Through Remix   (c) Through meat mask   (d) Through Oraclize

PART – B (5 x 3= 15 Marks)

6. List the Limitations of Centralized Systems.   CO1- U

7. Difference between Bitcoin and Ethereum Blockchain   CO1- U

8.   What is RLP Encoding?   CO1- U

9.   What is Enterprise Blockchain?   CO1- U

10.   What is GETH?   CO1- U

PART – C (5 x 16= 80 Marks)

11. (a) Suppose Alice shares a secret block cipher key, KAB with Bob, and   CO2- App   (16)
a different secret block cipher key, KAC with Charlie. Suggest a
method for Alice to encrypt an m block message such that it can
only be decrypted with the cooperation of both Bob and Charlie.
The ciphertext should only be a fixed size greater than m blocks.
You may assume that Bob and Charlie have a pre-established
secret channel on which to communicate.

Or

(b) The company you work for is considering introducing block chain   CO2- App   (16)
technology to its administrative and financial procedures.
However, not all parties involved are convinced. Apply any
Innovative technology has the potential to significantly improve
business transactions and Identify how Block chain works and
how they can improve Business implementation and monitoring
processes.

12. (a) Explain the Bit coin Block chain Network on the Internet   CO1- U   (16)

Or

(b) Explain the Block Structure of Bit coin Block chain in detail.   CO1- U   (16)

13. (a) Describe about Ethereum Features and Structure of Ethereum   CO1- U   (16)
Block chain in detail.

Or

(b) Write about Smart Contracts. Explain how Smart Contracts help   CO1- U   (16)
them to do the Ethereum Transaction?

14. (a) Explain Block chain Applications in Business in detail.   CO1- U   (16)

Or

(b) Explain how Block chain helpful for business with examples.   CO1- U   (16)

15. (a) In polling system, people would be able to create a new poll, and   CO2- App   (16)
in that poll, they would be able to mention different choices. Users
would place their vote for one of the mentioned choices. You'll set
a voting period and everybody will be able to vote. At the end of
the voting period, one of the choices would be the winner. Use the
above criteria, Create Polling system DApp using smart contract in
Brief?

Or

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(b) On social media platforms, people make any claim about themselves which is often taken as the truth even if it's not. This skill verification system would validate skills in a simple and objective way including decentralized consensus. Skills would be judged anonymously by random other users. They would verify and validate the claim and get rewarded for their work. Show how would need to set up ethereum using smart contracts in Brief. CO2- App (16)

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