

Total No. of Questions : 8]

SEAT No. :

PE-2194

[Total No. of Pages : 2

[6584]-93

B.E. (Computer Engineering)
BLOCK CHAIN TECHNOLOGY
(2019 Pattern) (Semester - VII) (410243)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates :

- 1) Solve Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right side indicate full marks.
- 4) Assume suitable data, if necessary.

Q1) a) Discuss following consensus algorithms used in blockchain technology.[8]

- i) Proof of work
 - ii) Proof of activity
 - iii) Proof of Burn
 - iv) Proof of Stake
- b) Explain in detail [6]
- i) Bitcoin
 - ii) Ethereum
 - iii) Hyperledger
- c) Explain the concept of Bitcoin in Blockchain Technology [4]

OR

Q2) a) Discuss the difference between Bitcoin and Ethereum. [4]

- b) Explain the difference between a permissioned and permissionless consensus approach. [4]
- c) Explain the Byzantine General Problem in the context of blockchain consensus. [4]
- d) Explain the role of IOTA in the context of the Internet of Things (IoT) [6]

P.T.O.

- Q3) a)** What is Metamask illustrate in details. [9]
b) List and explain types of cryptocurrencies. [8]

OR

- Q4) a)** Compare and Contrast Coinbase and Binance. [8]
b) Differentiate between metamask and coinbase wallet. [9]

- Q5) a)** What is Ethereum? Explain in detail it differs from traditional cryptocurrencies. [8]
b) Identify two types of Ethereum networks and briefly explain the purpose of each. [9]

OR

- Q6) a)** Explain the concept of a smart contract with an example. [8]
b) How does Swarm contribute to decentralized storage in the Ethereum ecosystem? [9]

- Q7) a)** Describe the role of blockchain in financial sector. [9]
b) Describe the role of blockchain in Government sector. [9]

OR

- Q8) a)** Explain role of blockchain in healthcare. [9]
b) Discuss potential challenges and benefits of implementing blockchain in Voting system. [9]

