

Total No. of Questions : 8]

SEAT No. :

PB2245

[Total No. of Pages : 2

[6263]-83

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

Time : 2½ Hours

[Max. Marks : 70

Instructions to the candidates:

- 1) *Solve questions Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right 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
- i) Bitcoin
 - ii) Ethereum
 - iii) Hyperledger
- c) Explain the concept of Bitcoin in Blockchain Technology. [4]

[6]

[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 metmask 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]

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