

SPPU-BE-COMP-CONTENT – KSKA Git

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

[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.

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- 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]

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