

B.E Sem VII AIDS R-2019 e-scheme NOV-DEC 2023
11/12/24

(3 Hours)

(Total Marks: 80)

- N.B.: 1. Question No. 1 is compulsory.
2. Answer any three out of the remaining questions.
3. Assume suitable data if necessary.
4. Figures to the right indicate full marks.

Q1. Attempt the following (any 4):

(20)

- What is distributed ledger? Explain its need in the Blockchain.
- What is Bitcoin? Explain the role of hash cash.
- List and explain different types of accounts in ethereum.
- Explain the need of private blockchain.
- Differentiate between ERC20 and ERC721.

Q2. Attempt the following:

- What Merkle root tree. Explain Patricia Merkle root in ethereum.
- Explain the process of mining in detail.

(10)

(10)

Q3. Attempt the following:

- Write a smart contract in solidity to explain various types of arrays.
- Explain Hyperledger Fabric in detail.

(10)

(10)

Q4. Attempt the following:

- Explain the benefits and limitations of blockchain.
- Describe the various types of consensus in blockchain.

(10)

(10)

Q5. Attempt the following:

- Explain ethereum components in detail?
- Explain Different types of cryptocurrencies in detail.

(10)

(10)

Q6. Write short notes on (any 2):

(20)

- Case study on any Blockchain platform
- Consensus in private blockchain
- Blockchain in Defi and Metaverse
