Exam.Code: 1047
Sub. Code: 7635

2122

M.E. Computer Science and Engineering (Cyber Security)
Third Semester
CSN-8301: Block Chain

Time allowed: 3 Hours **Max. Marks: 50**

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Unit.

x-x-x

1. **Answer the following:-**

   a) What is Cryptocurrency?
   b) What do the businesses obtain from using blockchain?
   c) How does peer discovery work in a peer-to-peer (P2P) network?
   d) What is proof-of-work?
   e) How do verifiers check if a block is valid?

(5x2)

UNIT - I

2 a) How does blockchain work? What is the blockchain data structure? What type of records can be kept in blockchain? 5

b) Why is blockchain a trusted approach? What are the key principles in a blockchain that help in eliminating security threats? 5

3. a) What are the different types of blockchains? Explain why a blockchain needs tokens to operate. 5

b) How are transactions and blocks encrypted in the Bitcoin implementation? 5

4. With suitable example, explain the following:

   a) Blockchain distributed database
   b) Mining
   c) Chain fork
   d) Consensus Algorithm
   e) Smart Contract

10

UNIT - II

5. a) What Is Ethereum? What Is the Difference Between Ethereum And Bitcoin Blockchain? 5

b) Explain the significance of Federated Blockchain. 5

6. a) What is Blockchain as a Service? What novel Blockchain 3.0 adds on to Blockchain 2.0? 5

b) How Blockchain is Revolutionizing the Traditional Business Network? Explain with example? 5

7. How can blockchain be used in reducing verification time, royalty payments for right owners, content creators and tamper proof certification applications, *respectively*? 10

x-x-x