AS PER AP-CBCS SYLLABUS 2023-2024

COMPUTER APPLICATIONS(MAJOR/MINOR)

3RD YEAR – SEMESTER - V

BLOCK CHAIN TECHNOLOGY

(Common to All Universities in AP)

UNIT I: LAYERS OF A SOFTWARE SYSTEM

Layers of a Software System, Integrity, A Payment System, Types of Software Architecture, Purpose of the Blockchain, Peer-to-Peer system: Definition, Architecture, Link between Peer-to-Peer and Blockchain, Integrity Threats in Peer-to-Peer Systems, Four ways of Defining Blockchain, The purpose of the Blockchain, Blockchain Properties

Case Study: Identify Different Crypto Payments and Differentiate Them

UNIT – II: FOUNDATIONS OF OWNERSHIP

Foundations of Ownership, Security Related concepts in Block chain, Purpose and Properties of a Ledger, Double Spending Problem, Designing and Developing a Software System, Documenting Ownership, Integrity of the Transaction History

Case Study: Study about Harbor, Ubitquity, Propy that are used in Real Estate

UNIT-III: HASH FUNCTION IN BLOCK CHAIN

Hash Function in Block chain, Patterns of Hashing Data, Uses of Hash Values, Cryptography: Activities, Types of Cryptography, Digital Signatures

Case Study: Differentiate between various Blockchain Techniques used in Medical Field such as Ambrosus, Connecting Care, Farma Trust, MedRec

UNIT-IV: TRANSFORMING BOOK INTO BLOCKCHAIN DATA STRUCTURE

Transforming Book into Blockchain Data structure, Chaining Blocks of Data, Protecting the Data Store, Distributing the Data Store among Peers, Verifying and Adding Transactions

Case Study: How we Apply Blockchain Technology in Elections and Voting

UNIT-V: CHOOSING A TRANSACTION HISTORY

Choosing a transaction History, Paying for Integrity, Technical Limitations of Blockchain, Conflicting Goals of the Blockchain, Characteristics of the Blockchain, Blockchain Applications, Blockchain Platforms

Case Study: Identify various Blockchain Technologies used in Entertainment

IMPORTANT QUESTIONS

LEVEL – 1

UNIT-I: LAYERS OF A SOFTWARE SYSTEM

UNIT-II: FOUNDATIONS OF OWNERSHIP

UNIT-III: HASH FUNCTION IN BLOCK CHAIN

UNIT-IV: TRANSFORMING BOOK INTO BLOCKCHAIN DATA STRUCTURE

UNIT-V: CHOOSING A TRANSACTION HISTORY

LEVEL – 2

List of Questions

UNIT-I: LAYERS OF A SOFTWARE SYSTEM

LONG ANSWER QUESTIONS

SHORT ANSWER QUESTIONS

UNIT-II: FOUNDATIONS OF OWNERSHIP

LONG ANSWER QUESTIONS

SHORT ANSWER QUESTIONS

UNIT-III: HASH FUNCTION IN BLOCK CHAIN

LONG ANSWER QUESTIONS

SHORT ANSWER QUESTIONS

UNIT-IV: TRANSFORMING BOOK INTO BLOCKCHAIN DATA STRUCTURE

LONG ANSWER QUESTIONS

SHORT ANSWER QUESTIONS

UNIT-V: CHOOSING A TRANSACTION HISTORY

LONG ANSWER QUESTIONS

SHORT ANSWER QUESTIONS