

Code No: R18A0530**MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY**
(Autonomous Institution – UGC, Govt. of India)**IV B.Tech - II Semester Regular/Supplementary Examinations, April 2023****Parallel and Distributed Computing****(CSE)**

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Time: 3 hours**Max. Marks: 70****Note:** This question paper Consists of 5 Sections. Answer **FIVE** Questions, Choosing ONE Question from each SECTION and each Question carries 14 marks.

SECTION-I

- 1 **A** Discuss the applications and challenges of parallel computing in detail? [7M]
 B State the difference between Parallel Computing and Distributed Computing [7M]
- OR**
- 2 **A** Draw A typical SIMD and MIMD architecture [10M]
 B Write short discussion on Physical Complexity of an Ideal Parallel Computer [4M]

SECTION-II

- 3 Explain the different Mapping Techniques for Load Balancing in detail [14M]
- OR**
- 4 Discuss the complete procedure of API function to allocate memory on parallel computing device [14M]

SECTION-III

- 5 Discuss various performance metrics and the laws governing performance metrics for parallel computation in detail. Considering the parameters like speed up, efficiency, utilization etc... [14M]
- OR**

- 6 **A** Demonstrate Minimum Execution Time and Minimum Cost Optimal Execution Time in detail [10M]
 B What is mean by Scalability of Parallel Systems? [4M]

SECTION-IV

- 7 Explain the Matrix- Matrix Multiplication with an example [14M]
- OR**
- 8 Write and explain about Bubble Sort Algorithm with an example. [14M]

SECTION-V

- 9 Explain the Communication Strategies for Parallel Best-First Tree Search with neat diagrams [14M]

OR

- 10 **A** Discuss the Analysis of Average Speedup in Parallel DFS [7M]
 B Write about Analysis of the Search Overhead Factor [7M]

Code No: **R18A0534**

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

IV B.Tech - II Semester Regular/Supplementary Examinations, April 2023

Block Chain Technology

(CSE & IT)

Roll No									
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Time: 3 hours

Max. Marks: 70

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SECTION-I

- 1 **A** Illustrate the methods of decentralization . [7M]
- B** Outline about CAP Theorem? [7M]

OR

- 2 **A** Recall the Benefits and limitations of block chain? [7M]
- B** Classify Different types of networks / Systems? [7M]

SECTION-II

- 3 **A** Discuss about Asymmetric Key Cryptography? [7M]
- B** Write about Consensus Algorithms? [7M]

OR

- 4 **A** Discuss about Bit coin improvement proposals? [7M]
- B** Write short notes on line interfaces? [7M]

SECTION-III

- 5 **A** Discuss about the Working Mechanism of the Bit Coin? [7M]
- B** Classify different types of Wallets? [7M]

OR

- 6 **A** Discuss about Bit Coin payments? [7M]
- B** Write about the Bit Coin Improvement Proposals? [7M]

SECTION-IV

- 7 **A** What is Ethereum? What are the main elements in Ethereum Block Chain? [7M]
- B** Analyze about Various types of accounts in Ethereum? [7M]

OR

- 8 **A** What is the use of the yellow paper? Recall the Major components in Messages? [7M]
- B** Differentiate CPU and GPU Mining? [7M]

SECTION-V

- 9 **A** What are the Major Benefits of Smart Contract? [7M]
- B** Mention the Core features of Hyper ledger Saw tooth? [7M]

OR

- 10 **A** What are the fundamental classes used throughout the Saw tooth Lake project? Mention about them? [7M]
- B** Discuss about Software Guard Extensions environment? [7M]

Code No: R18A0529

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY**(Autonomous Institution – UGC, Govt. of India)****IV B.Tech - II Semester Regular/Supplementary Examinations, April 2023****Big Data Analytics****(CSE)**

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Time: 3 hours**Max. Marks: 70**

Note: This question paper Consists of 5 Sections. Answer **FIVE** Questions, Choosing ONE Question from each SECTION and each Question carries 14 marks.

SECTION-I

- 1 A List and explain Challenges and Characteristics of Big Data. [7M]
 B Compare and contrast Traditional Business Intelligence and Big Data. [7M]

OR

- 2 A List and explain various Terminologies used in Big Data Environments. [7M]
 B Illustrate any two Top Analytics Tools in detail. [7M]

SECTION-II

- 3 A Differentiate SQL and NoSQL. [7M]
 B List and explain Challenges of Distributed Computing. [7M]

OR

- 4 A Differentiate RDBMS and Hadoop. [7M]
 B Illustrate Hadoop Distributed File System in detail with neat sketch. [7M]

SECTION-III

- 5 A What are the Data Types used in Mongo DB? [7M]
 B Explain CRUD Operations in detail. [7M]

OR

- 6 A What is Cassandra? List and explain its Features. [7M]
 B Define Collection. What is the purpose of using a counter? [7M]

SECTION-IV

- 7 A Describe MapReduce Framework in detail? [7M]
 B Explain File Formats used in Compression Hive. [7M]

OR

- 8 A Illustrate Hive Architecture? [7M]
 B Describe Hive Partitions & Buckets with Example. [7M]

SECTION-V

- 9 A What is Apache Pig? Explain the Anatomy and Features of Pig. [7M]
 B Illustrate Pig Primitive Data Types in detail. [7M]

OR

- 10 A Illustrate Pig Complex Data Types. [7M]
 B Describe Execution Modes of Pig in detail. [7M]
