

Code No: 824AF

R15**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****MCA IV Semester Examinations, December - 2019****DISTRIBUTED SYSTEMS****Time: 3hrs****Max.Marks:75****Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART - A**5 × 5 Marks = 25**

- 1.a) What are the advantages and disadvantages of distributed systems? [5]
- b) What is Domain Name System? Give examples. [5]
- c) Discuss about Napster and its legacy. [5]
- d) Differentiate between flat and nested distributed transactions. [5]
- e) Explain about Kerberos and TLS. [5]

PART - B**5 × 10 Marks = 50**

2. How distributed systems are characterized? Give examples of distributed systems and their challenges. [10]

OR

3. What is RPC? Write the features of RPC and explain how RPC is used in UNIX system. [10]

4. What is Distributed File System? Explain about Distributed file system implementation. [10]

OR

5. Discuss about the case study of SUN Network file system. [10]

6. What is Clock Synchronization? Write about Berkley algorithm. [10]

OR

7. What is the significance of mutual exclusion in distributed systems? Distinguish between token-based solutions non-token based counterparts to distributed mutual exclusion.[10]

8. What is group communication? Explain the design issues and categories of group communication in detail. [10]

OR

9. Explain how deadlocks occur in distributed systems. Discuss their preventive methods. [10]

10. Differentiate between page based and shared variable Distributed Shared Memories. [10]

OR

11. Explain consistency models and make a comparison between release and entry consistency models. [10]