R15

Code No: 824AF

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]

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