8E5003

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B.Tech. VIII Semester (Main/Back) Examination - 2013
Computer Science
8CS3 Distributed Systems

Time : 3 Hours

Maximum Marks : 80
Min. Passing Marks : 24

Instructions to Candidates:

*Attempt any **five** questions, selecting **one** question from each unit. All questions carry **equal** marks. (Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.)*

Unit - I

1. a) What is Distributed system? What are the basic features of Distributed system.   **(8)**

    b) Explain Distributed Computing and its Paradigms.   **(8)**

OR

1. a) Explain DCE Architecture model and its Components in detail.   **(8)**

    b) Explain Chandy – Lamport algorithm for consistent state recording.   **(8)**

Unit - II

2. a) What are the basic difference between vector and matrix logical clock? **(8)**

    b) Explain Two level concurrency of Process and Threads.   **(8)**

OR

2. a) Explain Client Server Communication model on RPC and message passing?   **(8)**

    b) Write Chang and Roberts ring election algorithm for Leader Election.   **(8)**

Unit - III

3. a) Give the model of static process scheduling. **(8)**

   b) Explain Rate Monotonic for Real time Scheduling. **(8)**

OR

3. a) What are the basic applications of Distributed Process Implementation? **(8)**

   b) Give the brief description of DFS Design and Implementation. **(8)**

Unit - IV

4. a) Explain Write-Invalidate in Cache Coherence Protocols. **(8)**

   b) How does AFS works in Coda file Systems? **(8)**

OR

4. a) What is Distributed Shared Memory? Explain any memory management Algorithm in detail. rtuonline.com **(8)**

   b) Explain Lamport timestamps. **(8)**

Unit - V

5. a) Explain Fault, Errors and Failure in Distributed System in brief. **(8)**

   b) What is Replication? Explain in detail. **(8)**

OR

5. Write Short note on (Any 2) : **(8×2=16)**

   a) CORBA Services

   b) Byzantine Faults

   c) Update Propagation

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