QP Code : 2931

Total Marks : 100 marks   3 hrs.

Note :
    1.Question 1 is compulsory
    2. Attempt any 4 out of the remaining questions.

Q1.
    a) Comparison of NOS and DOS.   (05)
    b) Explain the issues in designing Distributed Systems   (05)
    c) Explain RPC Model for communication in a Distributed system.   (10)

Q2.
    a) Explain Absolute as well as Causal ordering semantics for group communication   (10)
      in a distributed system, with an example for each.
    b) Explain the need for coordinator selection in a distributed system.   (10)
      Explain one of the strategies for the same, in detail.

Q3.
    a)   Explain implementation of sequential consistency model for   (10)
        "Replicated and Migrating" block for distributed shared memory.

    b) What do you understand by clock synchronization? Explain Lamport's Mechanism   (10)

Q 4.
    a) What is phantom reads problem. Explain any one algorithm for distributed   (10)
      deadlock detection.
    b) What are data centric and client centric consistency models. Explain one model   (10)

Q5)
    a)   List desirable features of a good distributed file system.   (10)
       How are modifications propagated in file caching schemes?
    b) Compare Load sharing to task assignment and Load balancing strategies for   (10)
      scheduling processes in a distributed system.

Q6)
    a) Explain Address Space transfer mechanisms in process migration in a distributed System. (10)
    b) Explain stateless and stateful server implementation justifying advantages disadvantage   (10)
      of each

Q7)   Write short note on any 4   (20)
    a) Issues in designing DSM.
    b) Naming Service
    c) Distributed Transactions
    d) Desirable feature of a good Naming System
    e) Lightweight RPC and Call back RPC.

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