

21/12/2015 BE sem VIII - Comp-old-DC

Total Marks : 100 marks

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**QP Code : 2931**

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 in a distributed system, with an example for each. (10)
- 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 "Replicated and Migrating" block for distributed shared memory. (10)
- b) What do you understand by clock synchronization? Explain Lamport's Mechanism (10)

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Q 4.

- a) What is phantom reads problem. Explain any one algorithm for distributed deadlock detection. (10)
- 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 scheduling processes in a distributed system. (10)

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 of each (10)

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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