

Roll No.....

8803

Printed Pages : 3

BT-8 / M12

DISTRIBUTED OPERATING SYSTEMS

Paper-CSE-440

(DE IV)

Time allowed : 3 hours]

[Maximum marks : 75

Note : *Attempt five questions picking at least one question from each unit.*

Unit-I

1. (a) Explain in brief Amoeba architecture of distributed operating system.
- (b) What are the difficulties in achieving computation migration ? 8,7
2. (a) What are naming issues in distributed system ?
- (b) Discuss Multi RPC and PARPC. What are general shortcomings of RPC facilities ? 8,7

Unit-II

3. (a) Describe the data structures required in Heuristic algorithm for distributed mutual exclusion.

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(2)

- (b) What are the request sets required to be constructed for Maekawa's algorithm ? 9,6
4. (a) Show that Lamport's algorithm of mutual exclusion requires $3(N-1)$ messages per CS invocation.
- (b) Discuss minimum response time and maximum average response time of different mutual exclusion algorithms. 9,6

Unit-III

5. (a) Explain the conditions needed for a correct deadlock detection algorithm.
- (b) Discuss features of Obermarck's deadlock detection algorithm. 8,7
6. (a) Discuss issues in deadlock resolution.
- (b) Describe the two-phase algorithm for deadlock detection. 8,7

Unit-IV

7. (a) Draw a flowchart showing typical data access actions in distributed file systems.

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- (b) What are sender initiated and receiver initiated load sharing schemes ? 8,7

8. (a) Explain issues related to cache consistency.

- (b) Describe overheads in a load sharing policy.

8,7

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