

CS - 702
B.E. VII Semester
Examination, December 2012
Distributed System
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Time : Three Hours

Maximum Marks : 100 **Minimum Pass Marks : 35**

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Note: Attempt *One* question from each unit
All questions carry equal marks.

UNIT I

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1. (a) Differentiate among the following types of operating system by defining their essential properties. 10
 - i) Time sharing
 - ii) Parallel Processing
 - iii) Distributed
- (b) What are the main difference between a network operating system and a distributed operating system. 10

OR

2. (a) Write the difference between loosely coupled and tightly coupled systems. 10
- (b) What is groupware ? Why is it considered to be a promising technology for software development. 10

UNIT II

3. (a) Explain desirable features of good naming system. 10
- (b) What are the main similarities and difference between the RPC model and the ordinary procedure call model. 10

OR

4. (a) Explain various consistency models in detail. 10
- (b) What is false sharing ? When it is likely to occur? Can this problem lead to any other problem in a DSM system? Give reasons for your answer. 10

UNIT III

5. (a) What are the three main approaches for designing a DSM system. 10
- (b) Describe the Ring Election algorithm with example. Discuss the complexity of Bully and Ring election algorithm in terms of message. 10

OR

6. Explain the following algorithm of clock synchronization.
 - i) Berkeley Algorithm
 - ii) Averaging Algorithm 20

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UNIT IV

7. (a) What is processor thrashing? Give examples of two global scheduling algorithms that may lead to processor thrashing. 10

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- (b) Differentiate between internal synchronization and external synchronization of clocks in distributed system.

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OR

8. Explain the concept of logical clocks and their importance in distributed systems. A clock of a computer system must never run backward. Explain how this issue can be handled in an implementing of logical clocks concept.

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UNIT V

9. (a) Explain distributed database. Write the advantages and disadvantages of distributed database.
- (b) What is multimedia database. Explain in detail.

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OR

10. Write short note on (any two)

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- i) V-system
- ii) Distributed shared memory
- iii) Bully algorithm
- iv) Load distributing algorithms.