

Duration: 3hrs

[Max Marks:80]

- N.B. : (1) Question No 1 is Compulsory.
(2) Attempt any three questions out of the remaining five.
(3) All questions carry equal marks.
(4) Assume suitable data, if required and state it clearly.

- 1 Attempt any FOUR [20]
 - a Explain issues in designing Distributed system
 - b Compare NOS and DOS
 - c Explain desirable features of global scheduling algorithm
 - d Explain the need of election algorithm.
 - e Justify how Ricart-Agrawala's algorithm optimized the Message overhead in achieving mutual exclusion
- 2 a What is Remote procedure call? Explain how transparency is achieved in RPC [10]
b Explain various forms of message oriented communication with suitable example [10]
- 3 a What is logical clock? Why are logical clocks required in distributed systems? How Lamport does synchronizes logical clock? Which events are said to be concurrent in Lamports timestamp [10]
b Explain Chandy -Misra_Hass Algorithm for distributed deadlock detection. [10]
- 4 a Explain different load estimation and process transfer policies used by load balancing algorithms. [10]
b Describe code migration issues in details [10]
- 5 a Discuss and differentiate various client consistency models. [10]
b Explain Absolute ordering and Casual ordering process with the help of example for many to many communication. [10]
- 6 a List desirable features of distributed File system. How are modifications propagated in file caching schemes? [10]
b Discuss Raymonds tree based algorithm of token based in distributed mutual exclusion [10]
