

B.E (viii) Rev. C. 11/12
Distributed Computing

D Scan Pra 12

Con. 10254-12.

(REVISED COURSE)

(3 Hours)

KR-5238

[Total Marks : 100

N.B. (1) Question No. 1 is **compulsory**.

(2) Answer any **four** from the remaining **six**.

1. (a) Explain the reasons why the use and popularity of distributed systems are rapidly increasing, despite the increased complexity and difficulty of building it. 10
(b) Explain how transparency is achieved in Remote Procedure Calls. 10
2. (a) With neat diagrams, explain the failure handling mechanisms for message passing. 10
(b) Compare stateful and stateless servers. 10
3. (a) What are the commonly used semantics for ordered delivery of multicast messages ? 10
(b) Define thrashing. What are the methods used for solving thrashing problems ? 10
4. (a) Explain the distributed algorithms for clock synchronization. 10
(b) What are the common strategies used for handling deadlocks in distributed systems. 10
5. (a) Explain the different Load estimation policies and process transfer policies used by load balancing algorithms. 10
(b) With neat diagrams explain the commonly used ways in which threads of a process are organized. 10
6. (a) What are the main approaches to verify the validity of cached data in DFS ? 10
(b) Compare the characteristic features of system Oriented names and Human Oriented names. 10
7. Write short notes on (any **two**) :- 20
 - (a) Distributed Computing Environment (DCE)
 - (b) Heterogeneous DSM
 - (c) Election algorithms.
 - (d) Fault tolerance of DFS.