

Con. 3232-10.

AN-3148

D.C.  
(3 Hours)

[Total Marks : 100]

Distributed Computing

- N.B. : (1) Question No. 1 is **compulsory**.  
(2) Attempt any **four** questions out of remaining **six** questions.  
(3) Figures to the **right** indicate **full** marks.

1. (a) What is CORBA ? Explain its general architecture. 10  
(b) Explain RPC mechanism. Explain RPC semantics in case of failure 10
2. (a) What are the different goals of distributed system? Explain how are these goals implemented in the distributed system 10  
(b) Compare NOS and DOS with suitable diagram 10
3. (a) What is totally ordered multicasting ? How Lamport clock is implemented 10  
(b) Explain the need for Co-ordinator in distributed system. Explain the election algorithm. 10
4. (a) What are the various forms of message oriented communication? Give example of each. 10  
(b) Explain attacks and security threats in distributed system. 10
5. (a) Explain code migration and role of mobile agents. 10  
(b) Explain the process of concurrency control using pessimistic and optimistic time stamp ordering. 10
6. (a) What is name resolution ? Explain various ways of name resolution. 10  
(b) Explain distributed algorithm for mutual exclusion .What are the advantages and the disadvantages of it over centralized algorithms. 10
7. Write notes on: ( any two ) 20
  - i) CODA file system.
  - ii) Fault tolerance.
  - iii) Parameter passing in RMI.
  - iv) NFS file system.