

## ***B. Tech Degree VIII Semester Examination, May 2006***

### **CS 802 DISTRIBUTED COMPUTING**

*(2002 Admissions)*

Time : 3 Hours

Maximum Marks : 100

- I. (a) What are the key characteristics of a distributed system? (10)  
 (b) Explain SunRPC. (10)
- OR**
- II. (a) Explain design issues in a distributed system. (10)  
 (b) Explain client server communication. (10)
- III. (a) Explain design issues in a distributed file service. (10)  
 (b) Explain Sun NFS. (10)
- OR**
- IV. (a) Explain the different issues in distributed operating system. (10)  
 (b) Explain implementation techniques in distributed file service. (10)
- V. (a) Explain bully algorithms. (10)  
 (b) What do you mean by clock skew? Explain logical clock. (10)
- OR**
- VI. (a) Explain Cristian's method of synchronizing clock. (10)  
 (b) Explain client server algorithm and Ricarl's algorithm. (10)
- VII. (a) What is a time stamp? Why it is needed in transaction processing? (5)  
 (b) What are the difference between concurrency control and mutual exclusion? (5)  
 (c) Explain optimistic concurrency control. (10)
- OR**
- VIII. (a) Explain two phase commit protocol. (10)  
 (b) Discuss the ACID properties of transactions. (10)
- IX. (a) Explain the two approaches for marking faults. (10)  
 (b) Explain server crash failures and Byzantine failure. (10)
- OR**
- X. (a) Briefly describe -  
     (i) Digital Signatures (5)  
     (ii) Authentication (5)  
 (b) Briefly explain the two approaches to the use of recovery files. (10)