

B. Tech Degree VIII Semester Examination, May 2006

CS 802 DISTRIBUTED COMPUTING

(2002 Admissions)

Time : 3 Hours

Maximum Marks : 100

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|-----------|------|---|------|
| 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) |
| OR | | | |
| 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) |
| OR | | | |
| 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) |
| OR | | | |
| 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) |
| OR | | | |
| 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) |

