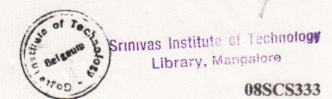USN | | | | | | | | | |

08SCS333

Third Semester M.Tech. Degree Examination, June/July 2011
Distributed Systems

Time: 3 hrs.

Max. Marks:100

Note: *Answer any FIVE full questions.*

1 a. Describe the core components of the world wide web.   **(10 Marks)**
   b. How scalability is handled by the distributed systems? Explain.   **(10 Marks)**

2 a. Explain the types of failures observed in failure model of the distributed systems. **(10 Marks)**
   b. Explain the role of middleware in the distributed computing architectures.   **(10 Marks)**

3 a. List and explain the various switching schemes in network computing.   **(10 Marks)**
   b. With pseudocode explain router information protocol (RIP).   **(10 Marks)**

4 a. Discuss the CORBA's Common Data Representation (CDR), with example.   **(10 Marks)**
   b. Explain request reply protocol with HTTP as an example.   **(10 Marks)**

5 a. How are interfaces and exceptions handled in distributed systems?   **(10 Marks)**
   b. Explain the architecture for multithreaded servers.   **(10 Marks)**

6 a. What are secret key algorithms? Explain with code the TEA encryption and decryption function. **(10 Marks)**
   b. How recoverability is achieved from aborts, during transactions in distributed systems? **(10 Marks)**

7 a. Explain the two phases commit protocol in distributed transactions.   **(10 Marks)**
   b. Bring out the structural composition of distributed shared memory.   **(10 Marks)**

8   Write short notes on :
   a. Java RMI.
   b. Inter process communication in UNIX.
   c. Ethernet.
   d. Sun network file system.   **(20 Marks)**

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