(Pages : 2) **6884**

Reg. No. : .....

Name : .....

Eighth Semester B.Tech. Degree Examination, December 2013
(2008 Scheme)
08.806B : DISTRIBUTED SYSTEMS (F)

Time : 3 Hours Max. Marks : 100

PART – A

Answer **all** questions. **Each** question carries **4** marks.

1. How is resource failure handled in a distributed system environment ? Also cite the various factors that lead to an unreliable network.

2. Give an account of the software layers in distributed systems.

3. Explain about NTP and its functioning aspects.

4. Briefly explain the functioning of Mobile IP.

5. Write a short note on XML.

6. Explain about group communication with respect to reliability and ordering of multicast.

7. Explain about the implementation aspects of processess and threads in UNIX operating systems briefly.

8. Give an account of virtual file system of NFS.

9. Give a short note of nested transactions.

10. Briefly explain the recovery of Two-phase commit protocol. **(10×4=40 Marks)**

P.T.O.

PART – B
MODULE – I

11. a) Discuss the various challenges involved in designing of distributed systems. 10

    b) Give an account of the Architectural Models in distributed systems in detail. 10

OR

12. a) Discuss about the Network principles in distributed systems. 10

    b) What is a firewall ? Describe how to configure a firewall to protect a local area network in an institution/company. What outgoing and incoming requests should it interupt ? 10

MODULE – II

13. a) Explain TCP stream communication. 7

    b) Explain CORBA'S Common data Representation. 7

    c) Give a short note on client server communication. 6

OR

14. a) Explain how RPC is implemented. 7

    b) Discuss about RMI and its implementation. Also suggest how RMI is different from RPC. 13

MODULE – III

15. a) Give an account of operating system Architecture of a distributed system. 13

    b) Differentiate between distributed operating system and network operating system. 7

OR

16. a) Explain nested transactions with respect to distributed transactions. 8

    b) Briefly explain the techniques for conservency control
       i) Street 2-phase locking
       ii) Timestamp ordering
       iii) Multiversion timestamp ordering. 12
