Code No. : 5251/S

FACULTY OF ENGINEERING

B.E. 4/4 (CSE) I Semester (Suppl.) Examination, June 2012

DISTRIBUTED SYSTEMS

Time : 3 Hours] [Max. Marks : 75

Instructions : *1) Answer **all** questions from Part – **A**.*
*2) Answer **any five** questions from Part – **B**.*

PART – A **(25 Marks)**

1. State three characteristics of Distributed System. **3**
2. What is 3-tier client server architecture ? **2**
3. Write about Reference Count. **2**
4. How could an interrupt be communicated to user level ? **3**
5. What is group multicast ? **2**
6. What are the steps followed in RPC ? **3**
7. List some task of recovery manager. **3**
8. What are the layers of internet protocol ? **2**
9. Describe the concept of release consistency. **3**
10. What is thrashing ? **2**

PART – B (50 Marks)

11. How can the design of a distributed system ensure that it will be scalable ? 10

12. Write about application and implementation of group communication, with examples. 10

13. Why is computer clock synchronization necessary ? Describe the design requirement for a system to synchronize the clocks in a distributed system. 10

14. What are the advantages and disadvantages of multiversion time stamp ordering in comparison with ordinary time stamp ordering. 10

15. Write short notes on : 10

a) Virtual partition algorithm

b) Bully electron algorithm.

16. Write about design and implementation issues of distributed shared memory. 10

17. Discuss how it is possible to compensate for clock drift between synchronization points by observing the drift rate over time. 10