Total No. of Questions :8] *[Total No. of Printed Pages :2*

Roll No .....

MCIT-202

M.E./M.Tech. II Semester

Examination, June 2016

Distributed Computing

Time : Three Hours

Maximum Marks: 70

Note : Attempt any five questions. All questions carry equal marks.

1. a) Why would you design a system as a distributed system? List some advantages of distributed system?
   b) Define client server and Peer to peer distributed system architecture also explain the concept of a "Remote Procedure Call"?

2. a) Explain the distributed object model used for communication between distributed system?
   b) Describe the various Internet Protocols used for distributed system?

3. a) Explain absolute as well as casual ordering semantics for group communication in a distributed system, with an example?
   b) What do you understand by clock synchronization in distributed system? Explain one technique of logical clock synchronization?

4. a) Explain distributed algorithm for mutual exclusion? What are the advantages and the disadvantages of it over centralized algorithm?

   b) What are the good features of a distributed file system? Explain file sharing semantics of it?

5. a) Explain distributed resource management with respective to distributed computing environment?
   b) Explain the process of synchronization w.r.t. physical and logical clocks?

6. a) Explain how mutual exclusion is implemented in Distributed system?
   b) What is transaction recovery? And also compare flat and nested distribution transaction?

7. a) Remote objects built with Java RMI are usually registered in a 50 called "registry". Why?
   b) What happens during a flat transaction if one of the participants calls for a rollback?

8. Write short notes on : (Any four)
   a) Events and notification
   b) Logical time and logical clocks
   c) Sun network file system
   d) Garbage collection in distributed system
   e) Parameter passing in RMI.

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