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Roll No

MCIT - 202**M.E./M.Tech. II Semester**

Examination, December 2015

Distributed Computing*Time : Three Hours**Maximum Marks : 70*

- Note :** i) Attempt any five questions.
ii) All questions carry equal marks.

1. a) In what respect are distributed computing system superior to parallel systems?
b) Why architectural model is important in the distributed system design? Also discuss the resource sharing and its importance?
2. a) Explain Java implementation of RMI?
b) Describe the various RPC protocols supporting client server communication.
3. a) What is remote method invocation? What are the commonalities and differences between RPC and RMI?
b) What are distributed objects and how these are implemented in distributed systems?
4. a) Name the main components of a distributed file system. What might be the reasons for separating the various functions of distributed file system into these components?

- b) What are the requirements for distributed mutual exclusion algorithms?

5. a) Discuss various algorithms used for deadlock detection in distributed system.
b) Why are election algorithms normally needed in a distributed system? A LAN based distributed system has broadcast facility. Suggest a simple election algorithm for use in this system.
6. a) Explain the major differences between external and internal synchronization of clock in distributed systems.
b) What is Distributed Multimedia? Write the characteristic of multimedia data.
7. a) What is transaction recovery? Explain how the transaction recovery can be made.
b) Explain flat and nested transaction with suitable example.
8. Write short notes on : (Any Four)
 - i) Sun Network file system
 - ii) Internet Protocol
 - iii) Optimistic Concurrency Control
 - iv) Digital Signature
 - v) Events and Notification
