

Roll No .....

**MCIT-202**

**M.E./M.Tech., II Semester**

Examination, December 2016

**Distributed Computing**

*Time : Three Hours*

*Maximum Marks : 70*

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

1. a) Discuss the relative advantages and disadvantages of the various commonly used models for configuring distributed computing system.  
b) Discuss the desirable features of a naming system.
2. a) Explain the types of failures caused when implementing a token passing approach in mutual exclusion.  
b) Describe the methods for organizing threads.
3. a) Give the format of RPC call and reply message.  
b) What do you mean by internetworking? Explain about the various interconnection technologies.
4. a) What is a physical clock? How is clock synchronization done in distributed systems?  
b) What are the conditions that lead to deadlock? Explain one of the centralized and distributed algorithms for deadlock detection.

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5. a) Outline the working of 2-phase and 3-phase commit protocol. Also write advantages and disadvantages of both.  
b) Compare and Contrast various methods of concurrency control.
6. a) Discuss the techniques to achieve high-performance in distributed file system.  
b) Enlist the characteristics of Distributed multimedia systems. How do we ensure quality of service for multimedia data?
7. How the communication between distributed objects take place? How the remote invocation is done in Java RMI? Explain with the help of diagram and also write the sample code.
8. Write short notes of any four from following in context of distributed system.
  - a) Stream adaptation
  - b) Digital signature
  - c) Andrew file system
  - d) Distributed Debugging
  - e) Time-stamp ordering

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