

Roll No

MCTA - 205
M.E./M.Tech., II Semester
Examination, December 2015
Distributed System
Time : Three Hours

Maximum Marks : 70

Note : Total number of questions eight. Attempt any five questions. All questions carry equal marks.

1. a) Discuss briefly the various issues related to distributed system design. 7
b) RPC support systems provide various tools, including a runtime library. What does this library contain? 7
2. a) Differentiate between a distributed operating system and a network operating system. 7
b) 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? 7
3. a) What are distributed objects and how these are implemented in distributed systems? 7
b) What are the requirements for distributed mutual exclusion algorithms? 7

4. a) What is Distributed Multimedia? Write the characteristic of multimedia data. 7
b) Explain in brief transaction recovery in distributed system. 7
5. a) Discuss various algorithms used for deadlock detection in distributed system. 7
b) Explain the major differences between external and internal synchronization of clock in distributed systems. 7
6. Explain the following: 14
i) Cryptography pragmatics
ii) Fault tolerant services
iii) Digital Signature
iv) Highly available services
7. a) Explain flat and nested transaction with suitable example. 7
b) How distributed system can be scaled? What problems arise during the scaling of the systems? 7
8. Write short notes on the following: (Any Four) 14
a) Events and notification
b) Stream oriented communication
c) Global states
d) Distributed deadlocks
e) Transaction with replica data
