

IV B.Tech II Semester Supplementary Examinations, Apr/May 2006
DISTRIBUTED SYSTEMS
(Computer Science & Systems Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. (a) What is a Single System Image ? Discuss.
(b) Explain the main guidelines and principles that a distributed operating system designer must follow for good performance of his or her system. [6+10]
2. Describe the functionalities of the different layers of the ATM protocol reference model. [16]
3. Discuss the strategies used to handle deadlocks and their applicability to distributed systems. [16]
4. (a) Discuss the advantages and disadvantages of workstation system model.
(b) Explain how idle workstations in a distributed system can be effectively utilized. [8+8]
5. (a) What is the difference between a file service using the upload/download model and one using the remote access model.
(b) Why do some distributed systems use two level naming. [12+4]
6. (a) Explain how sequential consistency is achieved in page based distributed shared memory.
(b) Differentiate between Release and entry consistency models. [10+6]
7. Explain the usage of the following in mach process.
(a) Process port
(b) Bootstrap port
(c) Exception port
(d) Registered port [4×4]
8. (a) Can a DCE client connect to multiple servers ? Explain.
(b) How can a server keep track of multiple clients? (in DCE)
(c) How do you perform asynchronous RPC? (in DCE) [5+5+6]
