

IV B.Tech I Semester Supplementary Examinations, April/May 2005
DISTRIBUTED SYSTEMS

**(Common to Computer Science & Engineering, Information Technology
and Electronics & Computer Engineering)**

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Explain the terms Access Transparency, Location Transparency, Failure Transparency and Concurrency Transparency with examples.
(b) Discuss important concepts that a distributed operating system designer might use to improve the reliability of his or her system.
2. Describe the functionalities of the different layers of the ATM protocol reference model.
3. (a) Explain lamport's happen before relation. what are the situations where this relation can be observed?
(b) Explain lamport's algorithm for assigning time to events using an example .
4. What is a real time system? And what are the design issues associated with real time distributed system?
5. (a) Discuss relative advantages and disadvantages of using stateful servers and stateless servers
(b) Why are transactions needed in a file service ?give suitable examples to illustrate how transactions help in improving the recoverability of files in the event of failures
6. (a) Explain **NUMA** Multiprocessor
(b) Explain about sequential consistency model
7. (a) Discuss the message types from microk to external memory managers of mach os?
(b) Discuss the message types from external memory managers to the microk of mach os?
8. (a) What are the advantages of DCE?
(b) Discuss briefly about Distributed Computing and DCE?
