

Code No: R42051

R10**Set No. 1****IV B.Tech II Semester Regular Examinations, April/May - 2014****DISTRIBUTED SYSTEMS****(Common to Computer Science & Engineering and Information Technology)****Time : 3 hours****Max. Marks: 75****Answer any Five Questions****All Questions carry equal marks***********

- 1 a) What is distributed systems? Explain its features along with its motivation for constructing. [8]
b) Analyze different challenges of distributed system [7]
- 2 What are different system model of distributed system [15]
- 3 a) What are characteristics of the TCP stream communication [7]
b) What is meant by group communication? Explain different types of groups? [8]
- 4 What is meant by object model? Describe how distributed object are related to distributed system? [15]
- 5 a) Difference between middleware and operating system support? [8]
b) What is meant by thread? Differentiate between process and threads? [7]
- 6 a) What are the main characteristics of peer to peer systems? [10]
b) Write about overlay routing. [5]
- 7 a) Differentiate between client server algorithm & ring based algorithm [10]
b) Write about multicast synchronization? [5]
- 8 What is meant by concurrency control? How it is important in distributed systems [15]

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R10**Set No. 2****IV B.Tech II Semester Regular Examinations, April/May - 2014****DISTRIBUTED SYSTEMS****(Common to Computer Science & Engineering and Information Technology)****Time : 3 hours****Max. Marks: 75****Answer any Five Questions****All Questions carry equal marks***********

- 1 a) What is meant by ubiquitous computing? Explain [8]
b) Summarize the example of distributed systems [7]
- 2 a) What are the difficulties and threats of distributed system [8]
b) Describe the main architectural model of distributed system [7]
- 3 What is meant by interprocess communication? How inter process communication is used in distributed systems [15]
- 4 What are design issues for remote method invocation? [15]
- 5 a) What is meant by shared memory multiprocessor? Explain. [8]
b) Explain how operating system layer support common middle ware. [7]
- 6 a) Distinguish between IP and overlay routing for peer to peer applications. [8]
b) What are the non functional requirements of peer to peer middleware? [7]
- 7 a) Write about fault tolerance. [7]
b) What are the features required for election algorithms. [8]
- 8 a) Write rules for connecting of nested transaction. [8]
b) Write about locking in distributed systems. [7]

Code No: **R42051****R10****Set No. 3****IV B.Tech II Semester Regular Examinations, April/May - 2014****DISTRIBUTED SYSTEMS****(Common to Computer Science & Engineering and Information Technology)****Time : 3 hours****Max. Marks: 75****Answer any Five Questions****All Questions carry equal marks***********

- 1 a) What are different trends in distributed systems? [8]
b) Describe about distributed multimedia systems. [7]
- 2 a) Distinguish between two-tier and three-tier architectures. [8]
b) What are thin clients? Explain any two applications of thin clients. [7]
- 3 What meant by marshalling? Differentiate between TCP stream communication and Client Server Communication. [15]
- 4 a) Differentiate between RMI and Remote procedure call. [8]
b) Summarize about implementation of RMI. [7]
- 5 a) Explain architecture of server threads. Give its applications. [8]
b) Write about invocation and address space. [7]
- 6 a) Explain and summarize Napster and its legacy with respect to distributed file system. [8]
b) Explain sun network file system. [7]
- 7 Write about bully algorithm and summarize how it is different from other election algorithms. [15]
- 8 a) Explain about locking in strict two phase locking. [8]
b) Write about distributed deadlocks. How to prevent deadlocks in distributed systems [7]

Code No: **R42051****R10****Set No. 4****IV B.Tech II Semester Regular Examinations, April/May - 2014****DISTRIBUTED SYSTEMS****(Common to Computer Science & Engineering and Information Technology)****Time : 3 hours****Max. Marks: 75****Answer any Five Questions****All Questions carry equal marks***********

- 1 a) Describe the distributed computing as utility. [8]
b) What are different benefits of resource sharing. Explain about its significance [7]
- 2 What is meant by event ordering. Explain real time ordering of events. [15]
- 3 a) What are the characteristics of inter process communication. [10]
b) What is meant by external data representation [5]
- 4 Write short note on [15]
i) java RMI ii) Events and Notifications
- 5 a) What is meant by light weight remote procedure call? [5]
b) how could an interrupt be communicated to a user level server [5]
c) Difference between object and distributed object. [5]
- 6 a) What is meant by failure assumption and failure detectors? [8]
b) Write the algorithm of mutual exclusion. [7]
- 7 a) Explain about coordination and agreement in group communication [8]
b) What meant by total ordering and where it is used. [7]
- 8 a) Write is meant by timestamp ordering and how it is different from optimistic currency control. [8]
b) Write about active and passive replications [7]