

<b>3E7937</b>	Roll No. : _____	rtuonline.com	Total Printed Pages : <b>2</b>
	<b>3E7937</b>		
	M. Tech. (Sem. III) (Main / Back) Examination, March/April-2011		
	Computer Engineering 3MCS1 : Parallel & Distributed Computing		

Time : 3 Hours]

[Max. Marks : 100  
[Min. Passing Marks : 33

*Attempt any five questions.*

*Marks of questions are indicated against each question.*

*Draw neat and comprehensive sketches wherever necessary to clearly illustrate your answer.*

*Assume missing data suitably if any and specify the same.*

Use of following supporting material is permitted during examination.  
(Mentioned in form No. 205)

1. \_\_\_\_\_ Nil 2. \_\_\_\_\_ Nil

- 1 (a) What are Distributed System? Describe the Concept of Vertical and Horizontal distribution. 4+6  
(b) Explain the principle of Page Based Distribution. Shared Memory with an example of 16 pages and 4 processors. 10
- 2 (a) Describe Remote object references and Remote Interfaces in distribute objects model. rtuonline.com 5+5  
(b) Explain Synchronous and Asynchronous transmission mode of data Strems. 5+5
- 3 (a) Describe Linerizability and Sequential Consistency. Why Sequential Consistency is more practice to implement than Linerizability, give an example? 4+6  
(b) Explain how Critical Region and Mutual exclusion can be implemented in Distributed System. 10

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- 4 (a) What are locks and Timestamp? What are the advantages and drawbacks of multiversion timestamp Ordering? 5+5  
(b) Describe Two phase locking Algorithm in Concurrency Control. 10

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- 5 (a) What are fault tolerance? Explain defferent kinds of failure. 4+6  
(b) Compare Message passing and Distributed Shared memory with respect to Communication mechanism. 10

- 6 Compare Sun Network file System and Code file System with respect to the following points :  
(i) Processes  
(ii) Naming  
(iii) Security  
(iv) Synchronization  
(v) Fault Tolerance. 4×5=20

- 7 Write Short notes on :  
(i) CORBA (ii) Globe 10+10

- 8 Differentiate between, Synchronization distribute state, Synchronization Media, and external Synchronization that may be required in multimedia application? Suggest mechanism by which each of then Could be achieved? 10+10

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