JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M.Tech I Semester Examinations, February - 2016
DISTRIBUTED SYSTEMS
(Computer Science and Engineering)

Time: 3hrs   Max.Marks: 75

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 25 marks. Answer all questions in Part A.
Part B consists of 5 Units. Answer any one full question from each unit. Each
question carries 10 marks and may have a, b, c as sub questions.

PART - A

5 × 5 Marks = 25

1.a)	Write a short notes on Java RMI.	[5]
b)	Explain the hierarchic structure of DNS name space.	[5]
c)	Discuss briefly about synchronizing physical clocks.	[5]
d)	List out the problems of concurrent transactions.	[5]
e)	What are the merits of DSM over message passing mechanism?	[5]

PART - B

5 × 10 Marks = 50

2. What are the challenges arising from the construction of a distributed system?
[10]

OR

3. What are the characteristics of distributed event based systems? [10]

4. How the addresses of resources or objects of given names are obtained?
Explain. [10]

OR

5. With a neat diagram explain file service architecture in detail. [10]

6. What is coordinated universal time? How is it implemented? [10]

OR

7. Explain the implementation of total ordering. [10]

8. Explain the problems of concurrency transactions using any real time example.
[10]

OR

9. Explain deadlock prevention. Discuss the advantages of locks to resolve
deadlocks with example. [10]

10. How language mapping is presented in CORBA? Explain with example. [10]

OR

11. What are the consistency issues raised by state transfer in a distributed
transactions? Explain the difference between linearizability and sequential
consistency, and why the latter is more practical to implement, in general. [10]

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