JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M. Tech I Semester Examinations, October - 2015
DISTRIBUTED SYSTEMS
(Computer Science and Engineering)

Time: 3hrs   Max. Marks: 60

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 20 marks. Answer all questions in Part A.
Part B consists of 5 Units. Answer any one full question from each unit. Each
question carries 8 marks and may have a, b, c as sub questions.

PART - A

5 × 4 Marks = 20

1.a)	List any four examples of distributed systems.	[4]
b)	Write about:	
	i) Protection ii) Scheduling.	[4]
c)	Discuss about peer-to-peer middleware.	[4]
d)	Describe the following:	
	i) Durability ii) Isolation.	[4]
e)	Write about:	
	i) Leakage ii) Tampering.	[4]

PART - B

5 × 8 Marks = 40

2.a)	Describe and illustrate the client-server architecture of one or more major Internet applications (for example, the Web, email or netnews).	
b)	Give an overview of interprocess communication.	[4+4]

OR

3.a)	Give an overview of communication between distributed objects.	
b)	Discuss in detail about internet working.	[4+4]

4.a)	What are the requirements of distributed file system?	
b)	Discuss in detail about SUN network file system.	[4+4]

OR

5.	Write about:	
	a) Name Spaces b) Name resolution.	[4+4]

6.a)	Explain about Cristian's method for synchronizing the clocks.	
b)	Explain about any one algorithm for ensuring mutual exclusion.	[4+4]

OR

7.a)	Explain about Maekawa's voting algorithm.	
b)	Explain about multicast communication.	[4+4]

8. Explain how the two-phase commit protocol for nested transactions ensures that if the top-level transaction commits, all the right descendants are committed or aborted. [8]

OR

9.a) What are the advantages and drawbacks of multisession timestamp ordering in Comparison with ordinary timestamp ordering?

b) Discuss in detail about group communication. [4+4]

10. Explain about Digital signatures. [8]

OR

11. Explain about CORBA RMI. [8]

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