

Roll No. ....

**24471**

**B. Tech. 7th Semester (CSE)  
Examination – May, 2015**

**DISTRIBUTED OPERATING SYSTEM**

**Paper : CSE-423-F**

***Time : Three Hours ]***

***[ Maximum Marks : 100***

*Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper.*

*No complaint in this regard, will be entertained after examination.*

**Note :** Question No. 1 is *compulsory*. Attempt any *one* question from each Section. All questions carry equal marks.

**1. Write short notes on :**

**5 × 4 = 20**

- (a) Goals of Distributed System
- (b) Mutual Exclusion
- (c) Types of Threads
- (d) Communication in MACH

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**P. T. O.**

## SECTION - A

2. Define Distributed Operating System. What are the advantages and disadvantages of distributed system ?  
Discuss Major design issues of a distributed system. 20
3. (a) Explain ATM Networks in detail. 10  
(b) What is Remote Procedure Call in Distributed system ? Explain. 10

## SECTION - B

4. (a) What is the need of Clock Synchronization in distributed System ? 10  
(b) What are ACID properties of a Transaction ?  
Explain Atomic Transactions. 10
5. What is a Deadlock ? Explain how the Deadlock handling in a Distributed System Environment is different from that in a Conventional Environment. 20

## SECTION - C

6. (a) Describe in brief, the various Inter-process Communication and Co-ordination mechanism. 10

- (b) Discuss the issues that have to be considered while allocating processes to the processors in distributed systems. 10
7. (a) Describe Distributed File System Design and Implementation Issues. 10
- (b) What are the characteristics of the Distributed File Systems ? 10

#### **SECTION – D**

8. (a) Briefly Describe the process scheduling of Mach Operating System in multiprocessor system. 10
- (b) Explain how sequential consistency is achieved in page Distributed Shared Memory ? 10
9. Explain how the concept of Distributed System Memory combines the merits of both Distributed and Shared Memory System. Explain consistency models in detail. 20