

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

24471-1,850-(P-3)(Q-9)(15)

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

24471-1,850-(P-3)(Q-9)(15) (2)

(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