D 42579 (Pages : 2) Name.....

Reg. No.....

SEVENTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION DECEMBER 2007

CS 04 703/IT 04 703—DISTRIBUTED SYSTEMS

(2004 Admissions)

Time : Three Hours Maximum : 100 Marks

Part A

Answer **all** *the questions.*

I. 1 Explain the various types of transparency in a distributed system.

2 Compare distributed operating system and Network Operating System.

3 Differentiate between a thread and a process.

4 How are client ion server crashes handled ?

5 Write an algorithm for logical clock synchronization and explain with an example.

6 Discuss the properties of an atomic transaction with an example.

7 Explain Co-scheduling with an example.

8 Write a security algorithm used in distributed systems.

(8 × 5 = 40 marks)

Part B

Answer **one** *question from each unit.*

UNIT I

II. 1 Discuss the major goals and design issues of a true distributed system.

Or

2 Discuss in detail about Distributed Computing Environment (DCE).

UNIT II

III. 1 Explain the design and implementation issues of concurrent process in a distributed system.

Or

2 Discuss about the various mechanisms provided for process synchronization in concurrent programming languages.

UNIT III

IV. 1 Discuss the various issues in message-passing communication in a distributed system.

Or

2 What is the need for a leader in a distributed system ? Write a leader election algorithm.

Turn over

UNIT IV

V. 1 Discuss about real-time scheduling and its various types with an example.

Or

2 Discuss about distributed shared memory and the various consistency models used in distributed systems.

(4 × 15 = 60 marks)