

C 47547

(Pages : 2)

Name.....

Reg. No.....

**SIXTH SEMESTER B.TECH. (ENGINEERING) DEGREE  
EXAMINATION, JUNE 2008**

**IT/CS 2K 606 (B)—DISTRIBUTED SYSTEMS**

Time : Three Hours

Maximum : 100 Marks

*Answer all questions.*

**Part A**

1. (a) What are the main components of DCE ? Explain their use.
- (b) Give the definition of distributed operation system given by Tanenbaum and Van Kennesse and explain.
- (c) Explain the various ways of organizing threads in a process.
- (d) What are the different types of packets used in client server model ? Describe their usage.
- (e) Describe the characteristics of human-oriented names.
- (f) Explain the Bully election algorithm.
- (g) What are the factors that influence the block size selection in DSM systems ? Explain.
- (h) What are the services provided by distributed file system ?

(8 × 5 = 40 marks)

**Part B**

2. (a) Explain the different dimensions of transparency in distributed system. (15 marks)

*Or*

- (b) (i) Discuss the design issues related to scalable distributed system. (7 marks)
- (ii) What are DCE cells ? Explain the factors that are considered in deciding the cell boundaries. (8 marks)

3. (a) Explain the different ways of implementing threads. (15 marks)

*Or*

- (b) (i) What is a logical clock ? Explain its usage in clock synchronization. (8 marks)
- (ii) Compare threads and processes. (7 marks)

4. (a) Explain the features of a message passing system. Also explain how failures are handled in message passing system.

(15 marks)

*Or*

- (b) (i) Describe the features of DCE directory server. (7 marks)
- (ii) What are the different approaches used for implementing mutual exclusion algorithm ? Briefly explain.

(8 marks)

**Turn over**

5. (a) What is a consistency model ? Explain the various consistency models used in distributed systems.

(15 marks)

Or

- (b) (i) Explain the various attacks to computer systems.

(7 marks)

- (ii) Explain the receiver initiated load balancing algorithm.

(8 marks)

[4 × 15 = 60 marks]