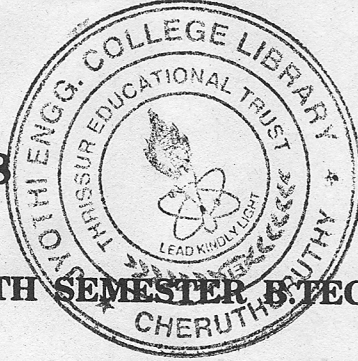


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(Pages : 2)

Name.....

Reg. No.....

**SEVENTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION  
DECEMBER 2011**

**CS/IT 04 703—DISTRIBUTED SYSTEMS**

(2004 Admissions)

Time : Three Hours

Maximum : 100 Marks

**Part A**

*Answer all questions.*

- I. (a) What do you mean by access Transparency and concurrency Transparency in a distributed system ?
- (b) What is distributed computing environment ?
- (c) Compare and contrast threads and process.
- (d) Explain the synchronisation issues.
- (e) Explain a algorithm to achieve mutual exclusion.
- (f) Explain the function of DNS.
- (g) Explain about the replacement strategy in distributed shared memory.
- (h) What is static process scheduling ?

(8 × 5 = 40 marks)

**Part B**

- II. (a) Explain the various distributed system architectures. (15 marks)
- Or*
- (b) (i) What are the advantages of distributed system over traditional time-sharing system ? (7 marks)
- (ii) Write short notes on Parallel Processing Systems. (8 marks)
- III. (a) Explain the operation of the client server model of a distributed system. (15 marks)
- Or*
- (b) (i) Explain the applications of thread. (7 marks)
- (ii) Describe the user space and Kernel space thread implementation. (8 marks)
- IV. (a) Explain the message passing communication :
  - (i) Protocol. (7 marks)
  - (ii) Discuss about request/reply communication. (8 marks)

*Or*

**Turn over**

(b) Write short notes on :

- (i) Transaction communication.
- (ii) Bully algorithm.

(7 marks)

(8 marks)

V. (a) Explain in detail about distributed computer security and its mechanisms.

Or

(b) Explain the distributed process scheduling.

(15 marks)

[4 x 15 = 60 marks]



I (a) What do you mean by access transparency and concurrency transparency in a distributed system?  
 (b) What is distributed computing environment?  
 (c) Compare and contrast threads and process.  
 (d) Explain the synchronization issues.  
 (e) Explain an algorithm to achieve mutual exclusion.  
 (f) Explain the function of DNS.  
 (g) Explain about the replacement strategy in distributed shared memory.  
 (h) What is state process scheduling?

(8 x 8 = 64 marks)

Part B

II (a) Explain the various distributed system architectures.  
 (b) What are the advantages of distributed system over traditional time-sharing system?  
 (ii) Write short notes on Parallel Processing Systems.

(7 marks)

(8 marks)

III (a) Explain the operation of the client server model of a distributed system.  
 (i) Explain the applications of thread.  
 (ii) Describe the user space and kernel space thread implementation.

(7 marks)

(8 marks)

IV (a) Explain the message passing communication.  
 (i) Protocol.  
 (ii) Discuss about request-reply communication.

(7 marks)

(8 marks)

Turn over