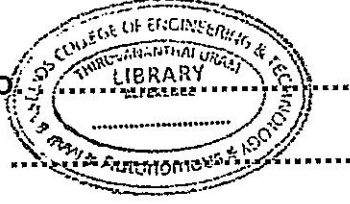


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N – 5777

Reg. No.

Name :



Eighth Semester B.Tech. Degree Examination, April 2022

13.803 – DISTRIBUTED SYSTEMS (R)

(2013 Scheme)

Time : 3 Hours

Max. Marks : 100

PART – A

Answer **all** questions. **Each** question carries **4** marks.

1. Give examples of applications where the use of mobile code is beneficial.
2. Differentiate synchronous and asynchronous modes of inter process communication.
3. Differentiate monolithic kernel and microkernel architecture in distributed operating system.
4. What do you mean by ACID properties in transactions?
5. What is flat and nested distributed transactions.

(5 × 4 = 20 Marks)

PART – B

Answer any **one** full question from each module.

Module I

6. (a) Explain about the various architecture models in distributed systems. **15**
- (b) Write short notes on the various switching schemes in networking. **5**

OR

P.T.O.



7. (a) Describe about the various design issues of distributed systems. 10
(b) Explain about the failure model and security model in distributed systems. 10

Module II

8. (a) Describe the design issues of RPC. 10
(b) Describe briefly on how group communication can be done in distributed systems. 10

OR

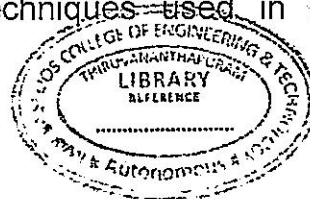
9. (a) Explain how Inter Process Communication is done in UNIX. 8
(b) Explain about the design issues in Remote Method Invocation mechanism. 12

Module III

10. (a) How can the OS be protected from illegal access? 10
(b) Explain how communication mechanism implemented in a distributed operating system? 10

OR

11. (a) Explain how the Operating System layers are designed in a distributed system? 10
(b) Describe about the security techniques used in distributed operating systems. 10



Module IV

12. (a) Describe briefly about Andrew File System architecture. 10
(b) Write short notes on the architectures for replicated transactions. 10

OR

13. (a) Explain how optimistic concurrency control is done in distributed systems. 10
(b) How edge tracing algorithm can be used for distributed deadlock detection? 10



(4 × 20 = 80 Marks)

