Code No. 6459 / N

FACULTY OF ENGINEERING

B.E. 4/4 (CSE) I-Semester (New) (Main) Examination, November 2013

Subject : Distributed Systems

Time : 3 Hours **Max. Marks: 75**

Note: Answer all questions of Part - A and answer any five questions from Part-B.

PART – A (25 Marks)

1. List out the goals of Distributed systems. (3)
2. What do you mean by Logical clocks? (2)
3. What is Marshalling? (2)
4. Explain briefly about file service architecture. (3)
5. Explain briefly about Reliable multicast. (3)
6. What is weak consistency? Differentiate between weak consistency and strong consistency. (3)
7. State the basic design issues in the distributed shared memory systems. (2)
8. What are vector time stamps? (3)
9. Distinguish between static and dynamic RMI. (2)
10. List out various tasks of recovery manager. (2)

PART – B (50 Marks)

11. (a) Discuss briefly about the architectural models of distributed systems. (5)
    (b) Explain Resource sharing in distributed systems. (5)

12. (a) Explain about external data representation in detail. (5)
    (b) Discuss how inter process communication is carried out in UNIX. (5)

13. (a) Explain how directory service is implemented in distributed system. (5)
    (b) Explain the concept of global states. (5)

14. (a) Explain in detail about nested distributed transactions with proper examples. (5)
    (b) Explain about concurrency control algorithms. (5)

15. (a) Explain in detail about release consistency. (5)
    (b) Discuss about SUN Network file system. (5)

16. (a) Explain about the operating systems support in distributed systems. (5)
    (b) Explain in brief about process status and synchronizing physical clocks. (5)

17. Write short notes on the following:
    (a) Fault tolerant services (4)
    (b) Logical time and logical clocks (3)
    (c) Name service (3)

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Code No. 6215 / O

FACULTY OF ENGINEERING

B.E. 4/4 (CSE) I – Semester (Old) Examination, November 2013

Subject : Distributed Systems

Time : 3 hours **Max. Marks : 75**

Note: Answer all questions from Part-A. Answer any FIVE questions from Part-B.

PART – A (25 Marks)

1. What is a thin client? Give an example. 2
2. What is a Distributed system? Define the bounds for synchronous distributed system. 3
3. What is Marshalling? 2
4. Define the parameters to measure the performance of distributed mutual exclusion algorithm. 2
5. Differentiate RPC and LRPC. 3
6. Give the significance of event and notification in distributed system. 3
7. What is weak consistency of shared memory? How is it different from sequential Consistency? 3
8. List three commonly used approaches of concurrency control. 2
9. When does a read page fault occur? 3
10. List the applications of group communication. 2

PART – B (5 x 10 = 50 Marks)

11. Discuss in detail about architectural model of distributed system.
12. What is RPC? Discuss the role of client and server stub procedures in RPC.
13. a) Explain distributed debugging.
    b) Discuss Berkeley algorithm with an example.
14. Explain how 2 phase commit protocol can be used for Nested Transactions? Write about its recovery.
15. Discuss briefly about CODA file system.
16. a) Explain the implementation approaches of distributed shared memory.
    b) Explain in detail about time stamp ordering.
17. a) Explain X.500 directory service architecture.
    b) Compare Mondthic and Micro Kernel design.

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