Code No.D-3314/AICTE

FACULTY OF ENGINEERING

B.E. (CSE) VII – Semester (AICTE) (Main) Examination, March / April 2022

Subject: Distributed Systems

Time: 3 Hours

Max. Marks: 70

(Missing data, if any, may be suitably assumed)

PART – A

Note: Answer all questions. (10 x 2 = 20 Marks)

1. Define Distributed System and Middleware technology.
2. What is the difference between layered and object based architecture styles.
3. How a multithreaded server is organized in dispatcher/worker model?
4. What is mutual exclusion? Name any two mutual exclusion algorithms.
5. Why replication is necessary in Distributed Systems?
6. Write about fault tolerance.
7. What is multicast communication?
8. What are the characteristics of distributed file system?
9. Give the overall organization of a traditional web site.
10. Define confidentiality in distributed coordination based system.

PART – B

Note: Answer any five questions. (5 x 10 = 50 Marks)

11. Explain Transaction Processing System. What is the role of TP monitor in distributed systems?
12. What are client and server stubs in RPC. Explain in detail the steps involved in doing a remote computation through RPC.
13. (a) Explain the concept of Lamports logically clocks.
    (b) Explain Berkeley Algorithm for clock synchronization in detail.
14. Write short notes on
    (a) Primary based protocols for consistency.
    (b) Replicated write protocols for consistency.
15. Write short notes on
    (a) CORBA object references.
    (b) Globe object references.
16. What is distributed file system? Explain about CODA file system.
17. Explain the concept of decoupling publisher from subscribers using an additional trusted service in distributed coordination system.

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