Roll No .....

CS-702

B.E. VII Semester

Examination, December 2013

Distributed Systems

Time : Three Hours

Maximum Marks : 70

Note: Total number of questions 10. Attempt one question (including all parts) from each unit. All question carry equal marks. Assume missing data, if any , suitably.

Unit - I

1. a) What are the transparency issues associated with distributed system ? Explain tunneling with example? 7
   b) Discuss the general organization of a distributed computing system and explain their characteristic features? 7

OR

2. a) Why architectural model is important in the distributed system design? What is resource sharing and its importance? 7
   b) Explain different failure in distributed system? 7

Unit - II

3. a) What are the various trends in a distributed file system? Explain them in detail. 7
   b) Define fault tolerant. Describe in brief, the methods to guard the system against different kinds of faults. 7

OR

4. a) Explain fault tolerant services in a distributed system? 7
   b) Explain the following : 7
      i) Feedback systems.
      ii) Calumnious system models.

Unit - III

5. a) Describe the various RPC protocols supporting client server communication. 7
   b) What is the significance of time in distributed system? What are the ways for synchronizing clocks? Give brief overview of various techniques. 7

OR

6. a) Explain about various Remote Procedure Call Semantics. 7
   b) Define the semantics for and design a protocol for a group form of request reply interaction, for example using IP multicast? 7

Unit - IV

7. a) What is fragmentation and replication in distributed systems? 7
   b) What are the methods to prevent distributed deadlocks? 7

OR

8. a) What are nested transactions and what is their role in a distributed system? In which way they could support distributed transaction? 7
   b) Describe the various deadlock handling techniques. 7

Unit - V

9. a) How does the communication between distributed objects take place? Describe the related issues. 7
   b) Define and explain briefly Homogeneous and heterogeneous DDBMS. 7

OR

10. a) Explain different characteristics of multimedia data. 7
    b) Explain the storage mechanism in distributed DBMS. 7

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