BICSE-007

B.Tech. – VIEP – COMPUTER SCIENCE AND ENGINEERING (BTCSVI)

Term-End Examination

00655

December, 2014

BICSE-007 : DISTRIBUTED DATABASE

Time : 3 hours   *Maximum Marks : 70*

*Note : Answer any **seven** questions. All questions carry equal marks.*

1. (a) Explain any popular application of database. Compare distributed database with centralized database. *5*

   (b) Describe the various components of DDBMS. *5*

2. (a) Define federated database system and multi database system. *5*

   (b) Discuss the properties of distributed transcations. *5*

3. (a) Explain the methods for concurrency control in distributed transcations. *5*

   (b) Explain three phase commit protocol in detail. *5*

4. Explain the following in detail : *2×5=10*

    (i)   OLAP Data Model

    (ii)   OLAP server

5. (a) Explain Semi-Join reduction in distributed database. *5*

    (b) What is Replication ? Explain important types of replication techniques. *5*

6. (a) Explain the issues of recovery in distributed database. *5*

    (b) Explain the types of failure in distributed system. *5*

7. Discuss the advanced transaction models suitable for different kinds of distributed database systems. *10*

8. Explain the following with the help of examples : *3+3+4=10*

    (i)   Horizontal fragmentation

    (ii)   Vertical fragmentation

    (iii) Mixed fragmentation

9. Describe the architecture for locking scheduler. *10*

10. Write short notes on any *two* of the following : $2 \times 5 = 10$

    (a)   Buffer Architecture

    (b)   Client/Server systems

    (c)   Multiway Joins

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