

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

**Term-End Examination**

**June, 2015**

00854

**BICSE-007 : DISTRIBUTED DATABASE**

*Time : 3 hours*

*Maximum Marks : 70*

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

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1. (a) Compare federated database systems with client/server systems.  
(b) Explain the notions of transparency and autonomy. *2×5=10*
2. (a) Define ACID properties of transaction.  
(b) Explain conflict and view serializability with the help of an example. *2×5=10*
3. Define concurrency. Explain the different methods for concurrency control in distributed transaction. *10*
4. (a) Explain multi-way join and semi-joins with the help of suitable examples.  
(b) Explain the difference between file server and client server architecture. *2×5=10*

5. Discuss how query optimization is useful in distributed database. 10
6. Explain the lock base protocol in detail. What is the role of time stamp based protocol in locking? 10
7. (a) Define scheduler. Why is its activity important for concurrency control?
- (b) Explain different Database Recovery Problems.  $2 \times 5 = 10$
8. Describe the buffer architecture and buffer management schemes. 10
9. What do you understand by fragmentation? Explain the different methods for fragmentation. 10
10. Write short notes on any *two* of the following:  $2 \times 5 = 10$
- (a) 2 PL
- (b) OLAP Data Model
- (c) Multi-database Systems
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