

**B.TECH. COMPUTER SCIENCE AND
ENGINEERING (BTCSEVI)**

Term-End Examination

December, 2013

BICSE-007 : DISTRIBUTED DATABASE

Time : 3 hours

Maximum Marks : 70

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

1. (a) Define Distributed Database. Explain the Distributed System Architecture. 6
(b) Distinguish the features of distributed database with centralized database. 4
2. Explain about transaction and computation model for Distributed Database management system with an example. 10
3. (a) What is data replication? Explain with example. Describe different layers of Query processing. 6
(b) Define concurrency control and commit protocol. 4
4. (a) Explain the objective of Query process optimization. 5
(b) Explain about granularity based locking. 5

5. (a) What are the differences between Semi Join and Natural Join? Explain with the help of suitable example. 5
- (b) What is a scheduler ? Why its activity important for concurrency control ? 5
6. What is database recovery ? Explain different database recovery techniques with the help of suitable example. 2+8
7. (a) Discuss drawbacks of 2PC protocol in distributed system with example. 5
- (b) Does 3PC protocol resolve all the problem. Discuss 3PC protocol with the help of state transition diagram. 5
8. (a) Explain the various strategies used in buffer management. 5
- (b) Why are distributed deadlocks occurred ? Explain with the help of suitable exmaple. 5
9. Write short notes on **any two** of the following :
- (a) Federated Database system. 5x2=10
- (b) Fragmentation.
- (c) Check point.
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