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BICSE-007

**B. TECH.-VIEP-COMPUTER SCIENCE
AND ENGINEERING (BTCSVI)**

Term-End Examination

June, 2019

BICSE-007 : DISTRIBUTED DATABASE

Time : 3 Hours

Maximum Marks : 70

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

1. What is Transaction ? Briefly explain the properties of transaction. Describe how transaction processing takes place in distributed DBMS. 10
2. What is Query Optimization ? Explain query decomposition and data localization in query processing in DDBMS. 10
3. (a) Differentiate between federated database system and multi-database system. 5
(b) Briefly explain failure recovery in distributed system. 5
4. (a) Explain parallel schedules with the help of an example. 5

(A-34) P. T. O.

- (b) Describe how serializability can be enforced in time stamp based concurrency control. 5
5. (a) Explain in-place update recovery and out-place update recovery. 5
- (b) Explain the working of two-phase commit protocol in DDBMS. 5
6. What are checkpoints ? What operations are required for performing checkpoints ? How are checkpoints used for recovery in DDBMS ? 10
7. Explain the situations in which deadlock may occur in DDBMS. Explain how distributed deadlock detection takes place, with the help of an example. 10
8. Write short notes on any *two* of the following :
2×5=10
- (a) Buffer Management
- (b) Transparencies in DDBMS
- (c) Distributed Joins