

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

**Term-End Examination**

00293

**December, 2018**

**BICSE-007 : DISTRIBUTED DATABASE**

*Time : 3 hours*

*Maximum Marks : 70*

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

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1. (a) Discuss the relative advantages of centralized and distributed databases. 5
- (b) Explain the difference between file server and client server architecture. 5
2. (a) Explain the objective of query process optimization. 5
- (b) Discuss three-phase commit protocol in detail. 5
3. (a) Explain the types of failure in distributed systems. 5
- (b) Describe the hill-climbing method of query optimization with an example. 5

4. (a) Describe the benefits and drawbacks of pipelined parallelism. 5
- (b) Briefly explain about heterogeneous databases. 5
5. (a) Why do distributed deadlocks occur ? Explain with the help of suitable example. 5
- (b) Explain Distributed Cost Model with an example. 5
6. Discuss advanced transaction models suitable for different kinds of distributed DBMS. 10
7. Describe buffer architecture and buffer management schemes. 10
8. Explain the following with the help of examples : 3+3+4=10
- (a) Horizontal fragmentation
- (b) Vertical fragmentation
- (c) Mixed fragmentation
9. What is a lock ? Discuss granularity in locks. Describe the different types of locks used in concurrency control along with their compatibilities. 10