

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VII (OLD) EXAMINATION – WINTER 2018****Subject Code: 171602****Date: 29/11/2018****Subject Name: Distributed Database Application & System****Time: 10:30 AM TO 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Explain the potential problems with DDBMS. **07**  
(b) Define Normalization. Explain Normalization up to BCNF. **07**
- Q.2** (a) Explain top-down design process in detail. **07**  
(b) What are distributed systems? Compare distributed system with centralized one? **07**
- OR**
- (b) Explain views in centralized DBMSs with examples. **07**
- Q.3** (a) Explain layers of query processing. **07**  
(b) Explain Peer to Peer Distributed System. **07**
- OR**
- Q.3** (a) List steps of query decomposition and discuss the same in brief **07**  
(b) What are the various types of computer networks? Explain in detail. **07**
- Q.4** (a) Explain MDBMS architecture with and without GCS for distributed DBMS. **07**  
(b) What is authorization control? How do imply authorization control in a distributed environment? **07**
- OR**
- Q.4** (a) Explain layers of transparency. **07**  
(b) Explain Distributed Cost Model with an example. **07**
- Q.5** (a) Write a note on parallel database system. **07**  
(b) Define a transaction. Discuss the ACID properties of transaction in the context of DDBs. **07**
- OR**
- Q.5** (a) Write short note on: Reliability in Distributed DBMS **07**  
(b) Write short note on: Two Phase Commit Protocol for Distributed Transactions **07**

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