Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–VII EXAMINATION – WINTER 2015

Subject Code: 171602   **Date:16/12/2015**
Subject Name: Distributed Database Application and System
Time: 10:30am to 1:00pm   **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)** Consider an International multiplex movie house having branches in all **07** over world, discuss its design of distributed database with type of fragmentation and allocation strategy.
(b) List and briefly explain advantages of Distributed database with **07** centralized approach.

Q.2 **(a)** Give comparison of all architecture for distributed DBMS with its **07** application.
(b) Explain top-down design process in detail. **07**
OR
(b) Explain Client Server architecture for Distributed DBMS. **07**

Q.3 **(a)** Explain, Min term predict, COM_MIN and PHORIZONTAL algorithm **07** in context of horizontal fragmentation.
(b) Explain views in centralized DBMSs with examples. **07**
OR
Q.3 **(a)** Explain AA matrix, CA matrix and BEA algorithm in context of vertical **07** fragmentation.
(b) What is distributed integrity Assertion ? Explain any one assertion with **07** example.

Q.4 **(a)** Explain layers of query processing. **07**
(b) Explain Elimination of redundancy and rewriting in the context of query **07** decomposition.
OR
Q.4 **(a)** Explain Centralized query optimization. **07**
(b) What are the various types of networks? Explain in detail. **07**

Q.5 **(a)** Explain distributed cost model with example. **07**
(b) Briefly describe the characterization of query processors. **07**
OR
Q.5 **(a)** Differentiate 1) Data warehousing Vs Distributed Database **07**
         2) Distributed Processing Vs Cooperative Processing
(b) Explain reduction in primary horizontal fragmentation for localization **07** of distributed data.

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