

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

ME - SEMESTER-IV • EXAMINATION – SUMMER 2013

Subject Code: 740101

Date: 14-05-2013

Subject Name: Distributed Database System

Time: 10.30 am - 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) Discuss problem areas in DDBS environment. **07**
(b) Explain functional layers of a relational DBMS. **07**
- Q.2** (a) Explain with example: tightly coupled and loosely coupled approach. **07**
(b) Explain MDBS architecture without a GCS. **07**
- OR**
- (b) What are the information requirements during allocation? **07**
- Q.3** (a) Explain clustering algorithm using matrices. **07**
(b) What do you mean by set oriented assertions? Explain. **07**
- OR**
- Q.3** (a) What are the layers of query processing? **07**
(b) Explain reduction for hybrid fragmentation. **07**
- Q.4** (a) Explain semijoin based algorithms. **07**
(b) Give an example workflow during transactions. **07**
- OR**
- Q.4** (a) Explain optimistic concurrency control algorithms. **07**
(b) Draw and explain a diagram of logging interface. **07**
- Q.5** (a) Draw a diagram of 3PC protocol actions. **07**
(b) What are parallel execution problems? Explain. **07**
- OR**
- Q.5** (a) What are architectural issues in distributed object DBMS? **07**
(b) What are the query processing steps in multidatabase system? **07**
