Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

ME – SEMESTER IV (NEW) – • EXAMINATION – SUMMER 2016

Subject Code: 2740202 **Date:04/05/2016**

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)**	Discuss in detail the problem areas in distributed database system environment.	**07**
	(b)	What do you mean by DBMS standardization? Give an example to explain it.	**07**
Q.2	**(a)**	Describe centralized semantic integrity control with examples.	**07**
	(b)	Explain clustering algorithm using matrices.	**07**
		OR	
	(b)	Explain allocation problem, taking into account fragments, networks, and running applications.	**07**
Q.3	**(a)**	Briefly describe the characterization of query processors.	**07**
	(b)	Give an example of reduction for primary horizontal fragmentation.	**07**
		OR	
Q.3	**(a)**	Briefly describe the layers of query processing.	**07**
	(b)	Explain distributed query optimization algorithms.	**07**
Q.4	**(a)**	Explain the properties of transactions.	**07**
	(b)	Describe optimistic concurrency control algorithm.	**07**
		OR	
Q.4	**(a)**	Explain the failures in DDBMS (Distributed Database Management System).	**07**
	(b)	Explain the compatibility matrix of lock modes.	**07**
Q.5	**(a)**	Discuss two-phase commit protocol.	**07**
	(b)	Explain database server approach and distributed database servers through diagrams.	**07**
		OR	
Q.5	**(a)**	Give an example for abstract data types and explain it.	**07**
	(b)	Explain the database integration process.	**07**

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