GUJARAT TECHNOLOGICAL UNIVERSITY
ME - SEMESTER IV (NEW) – EXAMINATION – SUMMER - 2017

Subject Code: 2740202   **Date:03/05/2017**

Subject Name: Distributed Database Application System

Time:02:30PM-05:00 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 Client – Server architecture and peer-to-peer distributed systems with figure.	**07**
	(b)	Explain loosely coupled system and tightly coupled system with example.	**07**
Q.2	**(a)**	Explain following in context of Relational algebra: 1. Selection 2. Natural Join 3. Intersection	**07**
	(b)	What is fragmentation? Why it is needed? What are the correctness rules for fragmentation?	**07**
		OR	
	(b)	What do you mean by distributed semantic integrity control? Explain with example.	**07**
Q.3	**(a)**	Draw and explain the process of DDBS design to be used when we wanted to design DDBS from scratch?	**07**
	(b)	short note on: 1)Characterization of Query Processors 2) Join versus Semijoin	**07**
		OR	
Q.3	**(a)**	What do you mean by set-oriented assertions? Explain it.	**07**
	(b)	Explain Distributed Query Optimization algorithms in details.	**07**
Q.4	**(a)**	Can you compare Centralized 2PL and Distributed 2PL with example?	**07**
	(b)	Explain the following terms: (i) GDD (ii) RAID (iii) Wait Die and Wound Wait (iv) Authentication (v) Referential integrity (vi) PHF (vii) LIS	**07**
		OR	
Q.4	**(a)**	Write short note on: Reliability in Distributed Database Application System.	**07**
	(b)	What do you mean by Parallel Database? Explain Parallel DBMS Techniques in details.	**07**
Q.5	**(a)**	Write a short note on Distributed Object Storage and Transaction Management.	**07**
	(b)	How to express advantages of Object Management & Distributed Object Storage.	**07**
		OR	
Q.5	**(a)**	Create small application of DDBMS using tools such as J2EE.	**07**
	(b)	What can you say about of Data Warehousing and Mobile Databases in Distributed Database Application System? Explain with example.	**07**

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