GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–VII (OLD) EXAMINATION – SUMMER 2019

Subject Code: 171602   **Date: 27/05/2019**

Subject Name: Distributed Database Application & System

Time: 02:30 PM TO 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)**	Which process of DDBS design is used when we wanted to design DDBS from scratch? Draw and explain that process.	**07**
	(b)	What are the various problem areas in DDBS environment? Explain them in detail.	**07**
Q.2	**(a)**	Explain Layers of Query Processing.	**07**
	(b)	Explain type of networks topology.	**07**
		OR	
	(b)	Explain all normal forms with example.	**07**
Q.3	**(a)**	Draw and explain various components of Distributed DBMS.	**07**
	(b)	Describe COM_MIN algorithm used in horizontal fragmentation.	**07**
		OR	
Q.3	**(a)**	What is site Autonomy in Distributed DBMS? Explain in brief.	**07**
	(b)	Describe BEA algorithm used in vertical fragmentation.	**07**
Q.4	**(a)**	Draw and explain query optimization process.	**07**
	(b)	Explain reduction for hybrid fragmentation.	**07**
		OR	
Q.4	**(a)**	What do you mean by query optimization? Explain System R (centralized) query optimization algorithm.	**07**
	(b)	Explain partitioning algorithm.	**07**
Q.5	**(a)**	Explain various transaction states and properties in detail.	**07**
	(b)	Explain Centralized Semantic Integrity Control.	**07**
		OR	
Q.5	**(a)**	Explain Two Phase Commit Protocol.	**07**
	(b)	Explain View management. How it is carried out in centralized and distributed DBMS?	**07**

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