Seat No.:	Enrolment No.

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

BE - SEMESTER-VII (NEW) - EXAMINATION – SUMMER 2017 Subject Code: 2170714  Date: 11/05/2017 Subject Name: Distributed DBMS(Departmental Elective - II)		)17	
Ti	me: 0 structio 1. 2.	22.30 PM to 05.00 PM Total Marks:  Attempt all questions.  Make suitable assumptions wherever necessary.	70
	3.	Figures to the right indicate full marks.	
Q.1	(a)	Define Distributed Database System. What is transparency in DDBMS? Explain Layers of transparency in DDBMS.	07
	<b>(b)</b>	Describe functional layers of Relational DBMS.	07
Q.2	(a) (b)	Elaborate Peer to Peer Distributed architecture.  Describe Bond Energy Algorithm (BEA) algorithm in vertical fragmentation.  OR	07 07
	<b>(b)</b>	Explain different types of failures in DDBMS.	07
Q.3	(a)	What do you mean by distributed semantic integrity control? Explain with example.	07
	<b>(b)</b>	Draw and explain query processing in centralized system.  OR	07
Q.3	(a)	What is authorization control? How to imply authorization control in centralized and distributed environment.	07
	<b>(b)</b>	Write a short note on: Phases of Distributed Query Processing	07
Q.4	(a) (b)	Discuss query optimization in brief.  Define a transaction. Discuss the ACID properties of a transaction.  OR	07 07
Q.4	(a) (b)	Discuss join ordering in query optimization.  Compare locking-based and timestamp-based concurrency control protocols with the help of examples.	07 07
Q.5	(a) (b)	Explain serializable schedules with the help of example.  Discuss wait - die and wound - wait deadlock avoidance algorithm for distributed system.	07 07
Q.5	(a) (b)	OR Explain Two Phase Commit Protocol (2PC). What is allocation? List and explain the information requirements during allocation.	07 07

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