Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

ME - SEMESTER– II(New course) • EXAMINATION (Remedial) – WINTER- 2015

Subject Code: 2722311 **Date: 09/12/2015**

Subject Name: Advance Database

Time:2:30 pm to 5:00 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 client server system architecture with suitable diagram.	**07**
	(b)	List various partitioning techniques of I/O parallelism and write differences among them.	**07**
Q.2	**(a)**	Explain distributed database system architecture with suitable diagram.	**07**
	(b)	Write a note on data replication and data fragmentation for data storage of distributed system.	**07**
		OR	
	(b)	Write a detailed note on two phase commit protocol.	**07**
Q.3	**(a)**	Elaborate star, snow flake and fact constellation schemas of multidimensional data model with suitable diagram.	**07**
	(b)	Compare OLTP with OLAP.	**07**
		OR	
Q.3	**(a)**	List and discuss various OLAP operations. Support your answer using a neat diagram.	**07**
	(b)	Write differences between operational database system and data warehouse.	**07**
Q.4	**(a)**	What is meant by skew? Discuss attribute value skew and partition skew.	**07**
	(b)	Describe parallel sort and range partitioning sort of Interoperation parallelism operations.	**07**
		OR	
Q.4	**(a)**	How many approaches are there to store XML data in database? What are the advantages and disadvantages of each approach?	**07**
	(b)	Explain XPath and XQuery. Support your answer by taking an appropriate example.	**07**
Q.5	**(a)**	Describe time-in database and multimedia database.	**07**
	(b)	Discuss transactional workflows.	**07**
		OR	
Q.5	**(a)**	Write a short note on spatial and geographical database.	**07**
	(b)	Explain Transaction processing monitor architectures with proper diagram.	**07**

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