Seat No.:	Enrolment No

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

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

Su	bject	Code: 740201 Date: 26/10/20	16
Su	bject [	Name: Advanced Databases	
Tiı	me:02	:30 pm to 05:00 pm Total Marks:	<b>70</b>
Inst	truction		
		Attempt all questions.	
	2. 3.	Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a)	Define: transaction. Explain the properties of transactions.	07
	<b>(b)</b>	Explain typical query processing steps when processing high level query.	07
Q.2	(a)	Why recovery is needed. What are the types of failure in transaction processing?	07
	<b>(b)</b>	What do you means by Concurrency in terms of database? Explain different problems of concurrency with example.	07
	<b>(b)</b>	<b>OR</b> What do you mean by persistence in Object oriented database? How many ways to make object persistence? Explain with example.	07
Q.3	(a) (b)	Describe the steps of building a Data warehouse Explain the process of knowledge discovery in database in the context of data mining.	07 07
		OR	
Q.3	(a)	What are the characteristics that must be considered in the design of a Mobile database System?	07
	<b>(b)</b>	Explain the server system architecture of client server system (model).	07
Q.4	(a)	In the context of distributed database, Define data fragmentation and explain techniques for it.	07
	<b>(b)</b>	What is Active and Deductive Databases?  OR	07
Q.4	(a) (b)	Explain partitioning techniques in parallel database How many ways to store XML data in database? What are the advantages and disadvantages of each approach?	07 07
Q.5	(a)	Explain Mandatory access control for database security in detail. Also Discuss how it is differ from discretionary access control	07
	<b>(b)</b>	What do you mean by Database tuning? Explain tuning of indexes for relational database with example.	07
		OR	
Q.5	(a)	How can privacy of data be preserved in a database? What are some of the current outstanding challenges for database security?	07
	<b>(b)</b>	Explain any one methods of Access control for database security.	07

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