Seat N	o.:	Enrolment No	
		GUJARAT TECHNOLOGICAL UNIVERSITY	
	M	E – SEMESTER IV (OLD) – • EXAMINATION – SUMMER 2016	
•		ode: 740201 Date:04/05/2016	
•		me: Advanced Databases	
Time Instru		0 am to 01:00 pm Total Marks: 70	
insti u	1. At	tempt all questions.	
		ake suitable assumptions wherever necessary. gures to the right indicate full marks.	
	J. 11	gures to the right indicate run marks.	
Q.1	(a) (b)	Explain typical query processing steps when processing high level query.  1. Explain various steps of Data Preprocessing.	07 04
	(0)	2. What do you mean by Concept Hierarchy? Explain with example.	03
Q.2	(a)	Explain the process of normalization upto BCNF with an example.	07
	<b>(b)</b>	Explain three-tier client-server architecture.	07
	<b>(b)</b>	<b>OR</b> Why recovery is needed? Explain various types of failures.	07
Q.3	(a)	Explain various OLAP operations with example.	07
	<b>(b)</b>	A database has following transactions. Let min_sup = 40% and min_conf=	07
		80%. TID Items	
		T1 I1, I2, I5	
		T2 I2, I5	
		T3 I1, I2, I3 T4 I2, I4	
		T5 I3, I4, I5	
		T6 I4, I5 Find all frequent itemsets using Apriori algorithm & also find association	
		rules.	
0.2	( )	OR	0=
Q.3	(a)	Explain the process of knowledge discovery in database in the context of data mining.	07
	<b>(b)</b>	A database has following transactions. Let min_sup = 40% and min_conf=	07
		80%. TID Items	
		T1 I1, I2, I5	
		T2 I2, I5	
		T3 I1, I2, I3 T4 I2, I4	
		T5 I3, I4, I5	
		T6 I4, I5 Find all fraguent itemsets using FB growth algorithm	
0.4		Find all frequent itemsets using FP-growth algorithm.	07
Q.4	(a)	Compare parallel and distributed database technology.	07

What do you mean by persistence in Object oriented database? How many

ways are there to make an object persistence? Explain with example.

Explain Active and Deductive Databases with Example.

1. What are the advantages of OODBMS over RDBMS?

2. Explain identical states and equal states in OODBMS.

**(b)** 

(a)

**(b)** 

**Q.4** 

**07** 

**07** 

03

04

Q.5	(a)	Explain Mandatory access control for database security in detail. Also Discuss how it is different from discretionary access control.	07
	<b>(b)</b>	How many ways are there to store XML data in database? What are the advantages and disadvantages of each approach?	07
		OR	
Q.5	(a)	What is database tuning? Explain tunable parameters and Various levels of database tuning.	07
	<b>(b)</b>	Explain various fragmentation techniques with example and explain correctness of Fragmentation?	07

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