Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. - SEMESTER - II • EXAMINATION - WINTER 2012

Sub	ject	code: 1722304 Date: 01-01-2013	
	_	Name: Data Warehouse and Data Mining	
		0.30 am – 01.00 pm Total Marks: 70	
Ins	truc	tions:	
		Attempt all questions.	
		Make suitable assumptions wherever necessary.	
	3.	Figures to the right indicate full marks.	
Q.1	(a)	Define the following terms:	07
Ų.1	(a)	i) Data warehouse ii) Data cube	07
		iii) Data mart iv) Metadata	
		v) Bitmap indexing vi) Fact table	
		vii) Dimensional table	
	(b)	Draw and explain the three-tier data warehousing architecture.	07
	()		
Q.2	(a)	Give the comparison between OLTP and OLAP systems.	07
	(b)	What are the different types of multidimensional schemas? Explain any one	07
		schema in detail with proper diagram.	
		OR	
	(b)	List and describe the different issues in data mining.	07
0.2	(-)	El-i- VDDid-li	07
Q.3	(a)	Explain KDD process with diagram.	
	(b)	Explain the different types of OLAP servers. OR	07
Q.3	(a)	Draw and explain the architecture of a typical data mining system.	07
V.	(b)	Write and explain partition clustering algorithm.	07
	(~)	with min the min partition to be seen and	
Q.4	(a)	Write and explain the FP – tree growth algorithm.	07
	(b)	Describe the issues regarding classification and prediction. Write an	07
		algorithm for decision tree.	
		OR	
Q.4	(a)	Write and explain Apriori algorithm.	07
	(b)	Write and explain SPADE algorithm (Sequential Pattern Mining Algorithm).	07
Q.5	(a)	Write a short note of followings:	07
Ų.S	(a)	i) Web content mining	U /
		ii) Web usage mining	
	(b)	Explain different approaches for text mining based on the kinds of data they	07
	(6)	take as input.	0,
		OR	
Q.5	(a)	Explain following clustering algorithm in details:	07
		i) CLARA	
		ii) BIRCH	
	(b)	Explain the typical requirements of clustering in data mining.	07