GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VIII • EXAMINATION – WINTER • 2014

Subject Code: 183103   **Date: 25-11-2014**
Subject Name: Business Intelligence & Data Mining
Time: 02:30 pm - 05:00 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)**	Explain KDD process with neat diagram.	**07**
	(b)	What is Business Intelligence? Explain three tier Data Warehousing Architecture.	**07**
Q.2	**(a)**	Define Data warehouse. Compare Data Mart and Virtual Warehouse.	**07**
	(b)	Explain Apriori algorithm to find out frequent itemsets. Also generate strong association rules from frequent itemsets.	**07**

OR

	(b)	Compare FP-Growth approach with Apriori and explain with suitable example.	**07**
Q.3	**(a)**	Compare OLAP and OLTP.	**07**
	(b)	What is classification and prediction? Explain issues regarding classification and prediction.	**07**

OR

	(a)	Explain following classification methods: (1) Bayesian Classification (2) Genetic Algorithms	**07**
	(b)	List and describe five primitives for specifying a data mining task.	**07**
Q.4	**(a)**	Briefly compare snowflake schema, fact constellation and starnet query model.	**07**
	(b)	Write Short note on ARCS .	**07**

OR

	(a)	Explain Attribute Oriented Induction approach for generalizing data.	**07**
	(b)	Explain Decision Tree induction approach.	**07**
Q.5	**(a)**	Explain following classification methods: 1. K-nearest neighbour classifiers 2. Case-based reasoning	**07**
	(b)	Explain classification by back-propagation method of Neural Network.	**07**

OR

	(a)	Write down applications of Data Mining in various domains.	**07**
	(b)	Explain Association Rule Mining with types of Association Rules.	**07**