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GUJARAT TECHNOLOGICAL UNIVERSITY MCA SEMESTER—IV -EXAMINATION -SUMMER-2016

Subject code: 640005 Date: 04-06-2016 Subject Name: Data Warehousing & Data Mining Time: 10.30a.m. To 01.00p.m. **Total Marks: 70 Instructions:** 1. Attempt all questions. 2. Make suitable assumptions wherever necessary. 3. Figures to the right indicate full marks. 0.1 (a) What is Data Warehouse? Explain the following Terms for Data Warehouse 07 1. Subject-oriented. 2. Integrated. 3. Time-variant. 4. Nonvolatile. (b) Discuss the Differences between Operational Database Systems and Data 07 Warehouses. What is top-down approach? Discuss warehouse design process steps. 07 **Q.2** (a) (b) Discuss following models for Data Warehouse 07 1. Enterprise warehouse. 2. Data mart 3. Virtual warehouse. OR (b) Discuss Range, Quartiles, Outliers, and Boxplots With Proper example. 07 Q.3 Explain the Concept of Relational Databases with Proper Example. 07 How is class comparison performed? Give the Details of general procedure of 07 class comparison. OR What is Data Mining? Discuss the major components of Data Mining. Q.3 (a) 07 Discuss Full materialization and Partial materialization with difference. **07 (b) Q.4** Discuss Frequent Pattern Mining: A Road Map. 07 What Is Classification? What Is Prediction? Discuss the Preparing the Data for 07 Classification and Prediction. OR **Q.4** Explain Apriori Algorithm with example. 07 **(b)** Give the Short note on: - Decision Tree Induction. 07 What is Cluster Analysis? Discuss Classical Partitioning Methods: k-Means and **07** Q.5 k-Medoids. (b) Discuss Data Mining for Financial Data Analysis. 07 **Explain : Distance-Based Outlier Detection** Q.5 07 Discuss Data Mining for Biological Data Analysis with DNA sequence and 07 corresponding amino acid sequence.
