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GUJARAT TECHNOLOGICAL UNIVERSITY M. E. - SEMESTER - II • EXAMINATION - SUMMER • 2014 Subject code: 1720108 Date: 23-06-2014 Subject Name: Data Mining and Data warehousing 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. (a) Draw and explain the data mining architecture. 07 Q.1**(b)** List out and explain the major issues in data mining. 07 0.2 (a) Draw and explain the three-tier data warehousing architecture. 07 **(b)** What are the different types of multidimensional schemas? Explain any one 07 schema in detail with proper diagram. OR **07 (b)** Explain different data warehouse models in details. Q.3 (a) What is the importance of data cleaning? Explain different methods for filling the missing values. What is data reduction? Why it is required? Explain the different methods of 07 data reduction. OR (a) Explain the different strategies of data transformation. Explain data 07 Q.3 transformation by normalization using relevant examples. What is data integration? Briefly describe the issues which are to be 07 considered during data integration. 0.4 Explain the Apriori algorithm for finding frequent itemsets without candidate 07 generation? **(b)** State and explain the Bayesian classification. 07 07 **Q.4** (a) Explain the various criteria for the classification of frequent pattern mining. **(b)** What is an attribute selection measure? Explain different attribute selection 07 measure with example. 0.5 (a) Explain the typical requirements of clustering in data mining. 07

Q.5 (a) What is density-based method in clustering? Explain in details about 07 DBSCAN.

(b) How does classification and prediction help in mining multimedia data?

(b) Write a short note on text mining. 07

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