**M. Tech – II Semester Regular & Supplementary Examinations, August/September 2009.**

**M.Tech II Semester Supplementary Examinations June 2010. ( AT LAST PAGE)**

1. a) Differentiate operational database systems and data warehousing.

b) Explain Snowflake schema, fact constellation schema with suitable examples.

2. a) Compare Discovery driven cube, multi-feature cube, and virtual warehouse.

b) Briefly discuss the data smoothing techniques.

3. Discuss the importance of establishing a standardized data mining query language. What are some of the potential benefits and challenges involved in such a task? List and explain a few of the recent proposals in this area.

4. a) Write a note on efficient implementation of Attribute-oriented induction.

b) How can we specify a data mining query for characterization with DMQL?

5. a) How can we mine multilevel Association rules efficiently using concept

hierarchies? Explain.

b) Discuss about association mining using correlation rules.

6. a) Discuss about Back Propagation classification.

b) Explain decision tree induction classification.

7. a) Explain with an example of how specific clustering methods may be integrated.(for example, one clustering algorithm is used as a preprocessing step for another)

b) Explain grid-based Clustering methods.

8. a) Discuss about mining time-series and sequence data.

b)Define web mining. What are the observations made in mining the Web for

effective resource and knowledge discovery?

**M.Tech II Semester Supplementary Examinations June 2010.**

1. a) What is Data warehouse? Brieflty describe the need for data warehousing.

b) Briefly describe the issues to consider during data integration.

2. a) Briefly describe various forms of data pre-processing.

b) Suppose that the data for analysis includes the attribute age. The age

values for the data tuples are (in increasing order) 13, 15, 16, 16, 19, 20, 20, 21, 22, 22, 25, 25, 25, 25,30, 33, 33, 35, 35, 35, 35, 36, 40, 45, 46, 52, 70.

i. Use min-max normalization to transform the value 35 for age onto the range [0:0;1:0].

ii. Use z-score normalization to transform the value 35 for age, where the standard deviation of age is 12.94 years.

iii. Use normalization by decimal scaling to transform the value 35 for age.

3. a) What is constraint-based mining? Briefly discuss about the possible constraints in highlevel declarative DMQL and user interface.

b) With definitions and examples related to schema hierarchies and set grouping hierarchies, brielfy describe the Syntax for concept hierarchy specification.

4. What is Analytical characterization? What is Class comparision and how it is performed?With an example, using DMQL, briefly Mining a class comparison.

5. What is Apriori algorith? Briefly describe the Variations of the Apriori algorithm to improve the efficieny.

6. What is Decision tree? With an example, briefly describe the algorithm for generating decision tree.

7. a) What is partition based clustering? Briefly describe centroid based technique for clustering.

b) What major advantages does *DENCLUE* have in comparison with other clustering algorithms?

8. What is multimedia data? Briefly describe the similarity search in multimedia data.