Roll No .....

MCSE - 301(A)

M.E./M.Tech. III Semester

Examination, June 2014

Data Warehousing and Mining (Elective - I)

Time : Three Hours

Maximum Marks : 70

Note: Answer any five questions. All questions carry equal marks.

1. a) What do you understand by data mining and knowledge discovery? Explain how the evolution of database technology led to data mining.
   b) Can we get classification rules from decision trees? If so how? What are the enhancements to the basic decision tree?

2. a) What do you understand by association rule mining? Explain join and prune steps involved in apriori algorithm to find frequent item sets.
   b) Differentiate between K-Means and K-Medoids Partitioning methods.

3. a) What are the different phases of BIRCH? How are they important in clustering?
   b) What is divide and conquer? How it could be helpful for FP Growth method in generating frequent item sets without candidate generation?

4. a) What is the difference between similarity and possibility approaches for fuzzy databases? What are the advantages and disadvantages of these approaches? Give Example where you would tend to favor one approach over the other.

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   b) What is data preprocessing? Why preprocessing of data is required before applying web mining. What are the steps involved in it Discuss.

5. a) Explain spatial mining and spatial clustering in brief.
   b) Explain about supervised and unsupervised training methods of artificial neural networks.

6. a) What are the characteristics of the OLTP and the basic data warehouse environments as they related to information delivery needs?
   b) Explain briefly star and snowflake schema. Also point out the major difference between them. Which is popular in data warehouse design.

7. a) Summarise the role of datamining in web and sequence mining.
   b) Suppose that a data warehouse consists of four dimension customer, product, sales Person and sale time and the three measures sales Amt (in rupees), VAT (in rupees) and Payment- type (in rupees). Draw the different classes of schemas that are Popularly used for modeling data warehouse.

8. Write short notes on the following :
   i) Feature Extraction and Motion Analysis
   ii) Web Usage Mining
   iii) Spatial Trends
   iv) Rock Algorithms

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