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Seventh Semester B.E. Degree Examination, Dec. 2013/Jan. 2014
Data Mining

Time: 3 hrs.

Max. Marks:100

**Note: Answer FIVE full questions, selecting
atleast TWO questions from each part.**

PART – A

- 1 a. Discuss the specific challenges that motivated the development of data mining. (10 Marks)
b. Explain the different data mining tasks. (10 Marks)
- 2 a. Explain the feature subset selection as a way to reduce the dimensionality. (10 Marks)
b. Write short notes on :
i) Data quality issues related to applications
ii) Sampling. (10 Marks)
- 3 a. Illustrate the different methods for expressing attribute test conditions in decision trees. (10 Marks)
b. Discuss the working of a rule – based classifier. (10 Marks)
- 4 a. Write short notes on :
i) General-to-specific vs specific-to-general strategy for traversal of itemset lattice
ii) Factors affecting the computational complexity of Apriori algorithm. (10 Marks)
b. Comprehend frequent itemset generation of the Apriori algorithm. (10 Marks)

PART – B

- 5 a. Discuss the different timing constraints that can be in posed on a pattern. (10 Marks)
b. Explain the different methods available for counting the support of a candidate sequence. (10 Marks)
- 6 a. Distinguish the different types of clustering. (10 Marks)
b. What are the important issues to be considered for cluster validation? (05 Marks)
c. Compare K – means and DBSCAN methods for clustering. (05 Marks)
- 7 a. Explain the following :
i) Information retrieval
ii) Dimensions and measures in spatial data cube. (10 Marks)
b. Discuss the challenges for effective resource and knowledge discovery on web. (10 Marks)
- 8 a. Explain the different theories which form the basis of data mining. (12 Marks)
b. What are the multiple dimensional features based on which data mining systems can be assessed? (08 Marks)