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Fifth Semester MCA Degree Examination, June/July 2011
Data Mining

Time: 3 hrs.

Max. Marks:100

Note: Answer any FIVE full questions.

- 1
 - a. What is data mining? Discuss the data mining tasks, with examples. (10 Marks)
 - b. Describe the different types of attributes, with example. (08 Marks)
 - c. Write the characteristics of data sets. (02 Marks)
- 2
 - a. What is data preprocessing? What are the steps involved in data preprocessing? Explain any two with example. (08 Marks)
 - b. Describe variable transformation as a step for data preprocessing. (07 Marks)
 - c. Discuss the dissimilarities between data objects. (05 Marks)
- 3
 - a. Define classification. Explain how classification is done by decision tree induction. (10 Marks)
 - b. Explain Hunt's algorithm, with an example. (05 Marks)
 - c. Write a note on web robot detection. (05 Marks)
- 4
 - a. How rule based classifier works? Explain rule-ordering schemes. (06 Marks)
 - b. Discuss formulation of association rule for mining purpose. (08 Marks)
 - c. Write nearest neighbour classification algorithm. (06 Marks)
- 5
 - a. Describe the evaluation of association patterns. (10 Marks)
 - b. Explain FP-growth algorithm to find frequent item sets. (10 Marks)
- 6
 - a. What is cluster analysis? Distinguish the various types of clustering. (08 Marks)
 - b. Explain the basic k-means algorithm. (07 Marks)
 - c. Discuss DBSCAN algorithm which illustrates the concepts for density based clustering. (05 Marks)
- 7
 - a. What is an outlier? Explain briefly the types of outlier detection. (10 Marks)
 - b. Write short notes on :
 - i) Spatial data mining.
 - ii) Multimedia data mining. (10 Marks)
- 8
 - a. Explain any two data mining applications. (10 Marks)
 - b. What are the parameters to be considered while choosing data mining system? Explain. (10 Marks)