# LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

**M.Sc.** DEGREE EXAMINATION – **COMPUTER SCIENCE**

FIRST SEMESTER – **APRIL 2014**

**CS 1822 - DATA MINING**

Date : 29/03/2014 Dept. No. Max. : 100 Marks

Time : 09:00-12:00

**Part A**

**Answer all the questions.** **10 x 2 = 20 Marks**

1. Why Data mining is so important?
2. Give formulae to determine chai square.
3. What are the two phases of implementation in clustering?
4. Why classification is not used in prediction?
5. What are the basic features of Clustering?
6. Mention the quality expected for clustering large databases.
7. Give any four notations used to represent association rules.
8. State the significance of incremental rules.
9. What is traversal pattern?
10. Specify the use of thematic maps.

**Part B**

**Answer all the questions.** **5 x 8 = 40 Marks**

11. a) Discuss the implementation issues in data mining (Or )
    b) Explain how the Decision tree predicts and mention its merit.

12. a) Illustrate the use of ID3 algorithm with an example (Or )
    b) Explain the use of activation functions.

13. a) Explain the significance of k means clustering (Or)
    b) Discuss the implementation issues in Divisive algorithm with an example.

14. a) With a suitable example, explain how to generate Large Item Sets (Or)
    b) Propose a method to compare association rule algorithms and explain.

15. a) Explain various types of crawlers and their suitability to web mining (Or)
    b) Elaborate the use of spatial mining primitives.

**Part C**

**Answer any two questions.** **2 x 20 = 40 Marks**

16. a) Explain in detail about predictive and descriptive approaches. (10 Marks)
    b) Illustrate the use of K nearest algorithm for clustering. (10 Marks)

17. a) Draw and explain dendrograms w.r.t. agglomerative algorithm. (10 Marks)
    b) Explain how Apriori algorithm generate rules with suitable example.(10 Marks)

18. a) Describe in detail about web usage mining. (10 Marks)
    b) Propose a rule based algorithm for classifying students based on their marks. (10 Marks)

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