# LOYOLA COLLEGE (AUTONOMOUS), CHENNAI - 600 034



### M.Sc. DEGREE EXAMINATION -COMPUTER SCIENCE

### FIRST SEMESTER - APRIL 2018

### CS 1822- DATA MINING

Date: 25-04-2018	Dept. No.	Max. : 100 Marks
Time: 09:00-12:00		

### SECTION - A

## ANSWER ALL THE QUESTIONS

 $(10 \times 2 = 20)$ 

- 1. Define Data mining.
- 2. Define Euclidian distance.
- 3. Define Classification.
- 4. What is back propagation technique?
- 5. What is clustering?
- 6. Define outlier.
- 7. What is association rule?
- 8. Write down any two applications of association rule mining.
- 9. What are crawlers?
- 10. What are HITS? Specify its components.

#### SECTION - B

### ANSWER ALL THE QUESTIONS

 $(5 \times 8 = 40)$ 

11. a) Compare data mining with knowledge discovery in databases.

(OR)

- b) Explain Baye's theorem. Illustrate with an example.
- 12. a) Describe the issues in classification.

(OR)

- b) Explain CART with an example.
- 13. a) Explain PAM algorithm with an example.

(OR)

- b) Explain Divisive Analysis clustering algorithm with an example.
- 14. a) Explain quantitative association rules.

(OR)

- b) Compare all the association rule algorithms and their metrics.
- 15. a) Explain personalization with web content mining.

(OR)

b) Explain about spatial queries.

### **SECTION - C**

# ANSWER ANY TWO QUESTIONS

 $(2 \times 20 = 40)$ 

- 16. i) Describe the basic data mining tasks with categorization.
  - ii) Explain the ID3 algorithm with example.
- 17. i) Explain the K Means clustering algorithm with example.
  - ii) Explain the Apriori algorithm with example.
- 18. i) Describe in detail about web usage mining.
  - ii) Explain Neural network models and its activation functions.

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