LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

FIRST SEMESTER – NOVEMBER 2017

17PCS1MC01 - DATA MINING

Date: 02-11-2017   Dept. No.   Max. : 100 Marks
Time: 01:00-04:00

SECTION-A

ANSWER ALL THE QUESTIONS: (10*2=20)

1. Define Data Mining.

2. How to recode the variable in R?

3. Define Classification.

4. Differentiate supervised and unsupervised learning.

5. Define Cluster analysis.

6. What is density reachable?

7. Define Time series data.

8. Differentiate trend and seasonal in time series.

9. Define association rule mining.

10. What is support?

SECTION-B

ANSWER ALL THE QUESTIONS: (5*8=40)

11. a) How to save and load R data? Explain.

                    (OR)

    b) Explain about data exploration.

12. a) Explain the linear regression with example.

                    (OR)

    b) Explain the logistic regression with example.

13. a) Explain the K-Means Clustering with example.

                    (OR)

    b) Explain the Divisive Analysis clustering.

14. a) Explain about Time series decomposition.

                    (OR)

    b) Explain about Time series forecasting.

15. a) Explain about association rule mining.

                    (OR)

    b) How to remove redundant rules? Explain.

ANSWER ANY TWO: **(2X20=40)**

16.   i) Discuss in detail about Classification and Regression Trees with example. (10)

     ii) Discuss in detail about Random Forest algorithm.   (10)

17.   i) Explain the hierarchal Clustering with example.   (10)

     ii) Discuss in detail about Time series Classification.   (10)

18.   i) Describe the classification of association rule mining.   (10)

     ii) Explain about FP – Growth algorithm with example.   (10)