LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

FIRST SEMESTER – NOVEMBER 2016

16PCS1MC01 - DATA MINING

Date: 02-11-2016   Dept. No.   Max. : 100 Marks
Time: 01:00-04:00

SECTION-A

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

1. Define Data Mining.
2. Write the syntax to read data in R.
3. Define Decision Trees.
4. Differentiate Classification and Regression.
5. How to measure the cluster quality?
6. What are outliers?
7. Define Time series data.
8. Write a syntax to convert the data in to time series.
9. Define association rule mining.
10. What is confidence?

SECTION-B

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

11. a) Explain Import from and Export to .csv files in R.
          (OR)
   b) Explain about data exploration.
12. a) Explain the linear regression with example.
          (OR)
   b) Explain the non linear regression with example.
13. a) Explain the K-Means Clustering with example.
          (OR)
   b) Explain the Agglomerative clustering.
14. a) Explain about Time series data.
          (OR)
   b) Explain about Time series decomposition.
15. a) Explain about association rule mining.
          (OR)
   b) Explain the Interpretation of association rules with example.

SECTION-C

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

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

   ii) Discuss about density based Clustering. (10)

17. i) Explain in detail about outlier detection. (10)

   ii) Discuss about Time Series Clustering. (10)

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

   ii) Discuss in detail about Apriori algorithm with example. (10)

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