LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION – **STATISTICS**

THIRD SEMESTER – **APRIL 2014**

ST 3955/3957 - DATA WAREHOUSING AND DATA MINING

Date : 10/04/2014 Dept. No. Max. : 100 Marks
Time : 01:00-04:00

SECTION- A

Answer all the questions **(10x2=20 Marks)**

1. Define Knowledge Discovery in Data Mining
2. State the use of CART
3. State any two Bagging and Boosting techniques
4. State the uses of Gains chart
5. Define Sensitivity and Specificity for a binary classification problem
6. State any four Non linear classifiers
7. Describe OLTP
8. State any two uses of data warehousing
9. Define Data Mart
10. Define Meta Data

SECTION- B

Answer any FIVE questions **(5x8=40 Marks)**

11. Describe Single tire architecture in detail
12. Explain the steps involved in a Data mining project
13. Describe ETL process in detail
14. State the Applications of Data mining and the steps involved in a Data mining project
15. Provide the steps involved in construction of a Classification tree
16. Explain the steps involved in constructing a random forest
17. Describe the steps involved in constructing a Artificial Neural Network
18. Explain the methods of model validation

SECTION- C

Answer any TWO questions **(2x20=40 Marks)**

19. Explain Two layer and Three layer architecture in detail
20. (i) Explain the steps involved in AdaBoost M1 algorithm for Boosting model performance[10]

    (ii) Explain Kth Nearest Neighbourhood Method of classification [10]
21. i) Explain the algorithm involved in Support Vector Machine in detail [10]

    ii) Describe the steps involved in Chisquare automated interaction detector [10]
22. i) Explain the steps involved in constructing a regression Tree [10]

    ii) Provide the steps involved in Naive Bayesian classification algorithm [10]