Reg. No :..............................

Name :................................

MASTER'S DEGREE (C.S.S) EXAMINATION, NOVEMBER 2024
2023 ADMISSIONS REGULAR
SEMESTER III - CORE COURSE Applied Statistics and Data Analytics
ST3C15TM - Data Mining and Their Applications

Time : 3 Hours

Maximum Weight : 30

Part A

I. Answer any Eight questions. Each question carries 1 weight

(8x1=8)

1. List the different technologies of data mining.

2. Define concept hierarchy.

3. Describe Metadata.

4. Recall Bayes' Theorem.

5. Define Measures of Central Tendency.

6. Discuss the role of Mahalanobis distance in outlier analysis.

7. List any 2 measures of similarity with their formulas.

8. Explain Variance Inflation Factor.

9. Recall any 2 time series models used for forecasting.

10. State any two properties of ridge estimator.

Part B

II. Answer any Six questions. Each question carries 2 weight

(6x2=12)

11. Explain the different schemas for OLAP multidimensional data model.

12. Illustrate schemas of multidimensional models with neat diagrams.

13. Discuss the different methods of predictive analysis.

14. Normalize the following data by z-score normalization:

   200

   300

   400

   600

   1000

15. Discuss K Means Algorithm and distance measures.

16. Describe the different grid-based methods for clustering.

17. List steps to find the eigen values with example.

18. Describe Data Mining

Part C

III. Answer any Two questions. Each question carries 5 weight

(2x5=10)

19. Explain steps involved in Datamining process.

20. Discuss the different methods for implementing data reduction in mining.

21. Analyse outlier analysis in detail.

22. Discuss the role of outlier analysis and explain different types of outliers.