

Roll.No.

24UCAET5A01

SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN
(AUTONOMOUS)

(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)
Chromepet, Chennai - 600 044.

B.C.A - END SEMESTER EXAMINATIONS - NOVEMBER 2025
SEMESTER - V

24UCAET5A01- Data mining

Total Duration : 1 Hrs.30 Mins.

Total Marks : 40

Section B

Answer any **TEN** questions ($10 \times 2 = 20$ Marks)

1. What is the difference between effectiveness and efficiency in data mining?
2. What are the 3V's of data?
3. What are the main types of attributes used to describe data objects?
4. What is the difference between Euclidean distance and Manhattan distance for numeric attributes?
5. What are the main tasks involved in data preprocessing?
6. What are the key characteristics of a data warehouse?
7. What are the main challenges of the Apriori algorithm?
8. Why are kernel functions used in Support Vector Machines (SVM)?
9. How is the lift measure used to determine correlation between itemsets?
10. What are the three common types of outliers mentioned in data analysis?
11. What is Bi-Clustering?
12. What is hierarchical clustering?

Section C

Answer any **FOUR** questions ($4 \times 5 = 20$ Marks)

13. Describe and compare the methods of Min–Max normalization, Z-score normalization, and Decimal scaling with examples.
14. Explain the concept of data warehouse architecture and its components.
15. What are iceberg cubes? Explain with an example.
16. Explain the Apriori algorithm for frequent item set mining. Discuss its working, challenges, and methods used to improve its efficiency. Illustrate with an example.
17. Explain the concept of Support Vector Machines (SVM) in classification.
18. Explain the DBSCAN clustering algorithm and discuss its key features, advantages, and limitations.
