

THIRD SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2025
(Regular/Improvement/Supplementary)
COMPUTER SCIENCE
FCSS3E02 – DATA WAREHOUSING AND DATA MINING

Time: 3 Hours

Maximum Weightage: 30

Section A: Short answer questions. Answer *any four* questions. Each carries *two* weightage.

1. Define OLAP. List any two OLAP operations.
2. What is data discretization? Give an example.
3. Write short notes on constraint-based association rule mining.
4. Mention two differences between supervised and unsupervised learning.
5. Define outlier analysis. Why it is important in crime/fraud detection?
6. What is concept hierarchy generation in data mining?
7. Write any two applications of web mining.

(4 × 2 = 8 weightage)

Section B: Short essay questions. Answer *any four* questions. Each carries *three* weightage.

8. Discuss major issues in data mining.
9. Describe Bayesian classification with an example.
10. Explain partitioning and hierarchical clustering methods.
11. Briefly explain data mining functionalities.
12. Write short notes on text mining and web mining.
13. Explain rule-based classification with an example.
14. Compare density-based and grid-based clustering approaches.

(4 × 3 = 12 weightage)

Section C: Essay questions. Answer *any two* questions. Each carries *five* weightage.

15. Explain Baye's Theorem and Naïve Bayesian Classification.
16. Discuss Datawarehouse architecture. Summarize OLAP operations in the multidimensional data model.
17. Discuss an algorithm for Density based clustering. Demonstrate the algorithm with an example.
18. What is Constraint based Association Mining? Explain its working for mining frequent item set from transactional databases.

(2 × 5 = 10 weightage)