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# V Semester B.Sc. Degree (C.B.C.S.S. – O.B.E. – Regular)

## Examination, November 2025

(2023 Admission)

# CORE COURSE IN ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING 5B13A AIML: Data Mining

Time: 3 Hours

Max. Marks: 40

SECTION - A

Answer all questions.

 $(6 \times 1 = 6)$ 

- 1. Mention any two algorithms for hierarchical method of clustering.
- 2. What do you mean by core point in DBSCAN?
- 3. What is an outlier?
- 4. What is a categorical variable? Give example.
- 5. What is support?
- 6. What is a fact table?

SECTION - B

Answer any 6 questions.

 $(6 \times 2 = 12)$ 

- 7. What do you mean by data mining?
- 8. What are the features of a data warehouse?
- 9. What is a frequent itemset? Give an example.
- 10. What do you mean by interestingness?
- 11. What is synonymy problem in text mining?
- 12. What is interval-scaled variables? Give an example.
- 13. What is DBSCAN?
- 14. What is STIRR?

P.T.O.



#### SECTION - C

### Answer any 4 questions.

 $(4 \times 3 = 12)$ 

- 15. Explain the idea behind CLARA.
- .16. Differentiate bottom-up and top-down strategy in hierarchical clustering.
- 17. Explain decision tree and its uses.
- 18. Explain concept hierarchy with examples.
- 19. Explain classification in data mining.
- 20. Explain Web structure mining.

SECTION - D

Answer any 2 questions.

 $(2 \times 5 = 10)$ 

- 21. Differentiate between OLAP and OLTP.
- 22. Explain how to calculate information gain with an example.
- 23. Explain the applications of clustering.
- 24. Explain different types of association rules with examples.