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Question Paper Code	14206
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MBA - DEGREE EXAMINATIONS, NOV / DEC 2025
 Third Semester
Master of Business Administration
24MBS304 - DATA MINING
 Regulations - 2024

Duration: 3 Hours

Max. Marks: 100

PART - A (10 × 2 = 20 Marks)

Answer ALL Questions

	<i>Marks</i>	<i>K- Level</i>	<i>CO</i>
1. List the types of data used in data mining.	2	K1	CO1
2. State two advantages of data partitioning.	2	K2	CO1
3. Define Data Mining.	2	K1	CO2
4. What is meant by classification in a data mining system?	2	K2	CO2
5. Expand SEMMA and list its stages.	2	K1	CO3
6. Differentiate between LOOCV and K-Fold Cross Validation.	2	K2	CO3
7. Mention two advantages of using neural networks.	2	K1	CO4
8. How is data mining useful in banking?	2	K2	CO4
9. Define crime pattern analysis.	2	K1	CO5
10. How does clustering help in retail data analysis?	2	K2	CO5

PART - B (5 × 13 = 65 Marks)

Answer ALL Questions

11. a) Illustrate the concept of an Enterprise Data Model (EDM). Describe its components and importance in enterprise data management.	13	K2	CO1
OR			
b) Explain the concept and importance of data partitioning. Describe different partitioning strategies used in data warehousing.	13	K2	CO1
12. a) Explain the architecture of a data mining system with a neat diagram. Discuss the role of each component.	13	K2	CO2
OR			
b) Discuss the ethical issues in data mining. Evaluate how privacy, data ownership, and data misuse can affect individuals and organizations.	13	K2	CO2
13. a) Identify the steps involved in the KDD process. Describe how KDD supports the transformation of raw data into useful knowledge. Illustrate with an example application in business or science.	13	K3	CO3
OR			
b) Apply the concept of a Confusion Matrix and describe how it helps in evaluating classification models. Discuss precision, recall, F1-score,	13	K3	CO3

K1 – Remember; K2 – Understand; K3 – Apply; K4 – Analyze; K5 – Evaluate; K6 – Create

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ROC Curve, and AUC with suitable examples.

14. a) Analyze the applications of data mining in the retail industry. Explain how techniques such as market basket analysis and customer segmentation improve sales and marketing strategies. 13 K4 CO4

OR

- b) Examine the working principle of Support Vector Machines and demonstrate how SVM's classify both linear and Non-linear data using kernel functions. 13 K4 CO4

15. a) Discuss how data mining techniques are used in stock price prediction. Include regression, neural networks, and time-series analysis. 13 K4 CO5

OR

- b) Examine the role of data mining in genetics and bioinformatics. Discuss its use in gene expression analysis and disease prediction. 13 K4 CO5

PART - C (1 × 15 = 15 Marks)

(Compulsory)

16. a) Evaluate the applications of data mining in the medical field. Explain how decision trees and neural networks assist in diagnosis and treatment prediction. 15 K5 CO4