

B. TECH. (MINOR) CBCS-2023
B. TECH. (MINOR) Semester-III (Sem-V Level) Artificial Intelligence & Data Science : WINTER:
2025
SUBJECT: ADVANCED MACHINE LEARNING

Day : Tuesday
Date : 23/12/2025

W-29446-2025

Time : 02:30 PM-05:30 PM
Max. Marks : 60

NB :

1. Assume data, if necessary.
2. Draw neat and labelled diagram WHEREVER necessary.
3. Figures to the right indicate FULL marks.
4. All questions are COMPULSORY.

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|------|---|------|
| Q. 1 | Discuss the specific areas where Machine Learning (ML) is used. | (10) |
| | OR | |
| Q. 1 | State and explain the steps in Exploratory Data Analysis (EDA). | (10) |
| Q. 2 | Illustrate the Classification and Regression problems. | (10) |
| | OR | |
| Q. 2 | Evaluate the performance of Decision Trees. | (10) |
| Q. 3 | Demonstrate the Clustering technique with proper diagram. | (10) |
| | OR | |
| Q. 3 | Interpret the Working Process of Unsupervised Learning. | (10) |
| Q. 4 | Examine the different Key Elements of Reinforcement Learning. | (10) |
| | OR | |
| Q. 4 | Compare and contrast between Supervised Learning, Unsupervised Learning and Reinforcement Learning. | (10) |
| Q. 5 | Analyze the concept of Centrality along with its Classification. | (10) |
| | OR | |
| Q. 5 | Inspect the Role of Community Detection in Network Analysis. | (10) |
| Q. 6 | Elaborate the Steps to conduct Text Analysis. | (10) |
| | OR | |
| Q. 6 | Describe the process of Categorizing Documents by Topics. | (10) |
