

**BACHELOR OF TECHNOLOGY (CBCS) (2021-COURSE)**  
**B. Tech. Sem - VII Computer Science & Engineering : WINTER: 2025**  
**SUBJECT: MACHINE LEARNING**

Day : Tuesday  
Date : 09/12/2025

**W-25602-2025**

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

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**N.B.**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the right indicate **FULL** marks.
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**Q.1** Write Tabular difference ML vs AI vs Data Science. (10)

**OR**

**Q.1** Define outliers. how outliers are determined in data sets. Explain with help of (10) examples.

**Q.2** What are criterion or parameters for choosing machine learning technique? (10) Explain it with help of examples.

**OR**

**Q.2** Write note on : (10)  
a) Logic based & algebraic models  
b) Probabilistic models

**Q.3** What is regression? Explain all types of regression. (10)

**OR**

**Q.3** Write tabular difference between classification and regression. (10)

**Q.4** What is Bayes' Theorem? Describe how the naïve Bayes Classifier functions (10) works, with help of illustrative example.

**OR**

**Q.4** Explain Rule-Based classification and support your explanation with an (10) example.

**Q.5** In relation to Hierarchical Clustering, describe the problem of connectivity (10) limitations.

**OR**

**Q.5** List and describe different real-world uses of Unsupervised Learning (10) Techniques.

**Q.6** In the context of Deep Learning, describe the idea of Deep Network (10) Architectures.

**OR**

**Q.6** Explain how ensemble techniques used to enhance prediction accuracy, (10) bagging and Boosting.

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