

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)

B.Tech. III Year II Semester Regular & Supplementary Examinations June-2025
FUNDAMENTALS OF MACHINE LEARNING
(Common to CAD & CCC)

Time: 3 Hours**Max. Marks: 60**

(Answer all Five Units 5 x 12 = 60 Marks)

UNIT-I

- 1 Explain the various types of Machine Learning techniques with neat diagrams. CO1 L2 12M

OR

- 2 Summarize the Guidelines for Machine Learning Experiments. CO1 L2 12M

UNIT-II

- 3 a Describe classification techniques in supervised learning. CO1 L1 6M
b List out various Regression techniques in Machine Learning. CO1 L1 6M

OR

- 4 a Differentiate various Parametric and Non-Parametric Methods. CO1 L4 6M
b Analyze Bayesian Decision theory in supervised learning. CO1 L4 6M

UNIT-III

- 5 a Explain the various Clustering algorithms. CO2 L2 6M
b List out the various applications of clustering. CO6 L1 6M

OR

- 6 a Analyze the working principle of K-means Clustering. CO4 L2 6M
b Give the different types of Partitioned algorithms used in clustering. CO2 L2 6M

UNIT-IV

- 7 State and explain various Non-Parametric Density Estimation Techniques. CO3 L1 12M

OR

- 8 a Discuss the Principle Component Analysis. CO5 L2 6M
b Describe the Factor Analysis Technique. CO1 L1 6M

UNIT-V

- 9 a Explain various types of reinforcement learning techniques. CO4 L2 6M
b List out the advantages and disadvantages of Reinforcement Learning. CO1 L1 6M

OR

- 10 Analyze the working process of Reinforcement learning. CO3 L4 12M

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