R22

Model Question Paper
ANURAG Engineering College
(An Autonomous Institution)
III B.Tech. II Semester Regular Examinations, June -2025
MACHINE LEARNING
(COMMON TO CSE & IT)

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

	Section – A (Short Answer type questions)		(10 Marks)	
Answer All Questions		**Course Outcome**	**B.T Level**	**Marks**
1.	Define machine learning.	CO1	L1	1M
2.	Mention the applications of machine learning.	CO1	L1	1M
3.	What is perceptron?	CO2	L1	1M
4.	What is overfitting?	CO2	L1	1M
5.	What is the main purpose of a decision tree in machine learning?	CO3	L1	1M
6.	What is kernel SVM?	CO3	L1	1M
7.	Name one probabilistic learning method.	CO4	L1	1M
8.	Which algorithm is commonly used for clustering in unsupervised learning?	CO4	L1	1M
9.	List out the ensemble learning techniques.	CO5	L1	1M
10.	What is the main goal of reinforcement learning ?	CO5	L1	1M
	Section – B (Essay Questions)			
Answer all questions, each question carries equal marks.		**(5 X10M = 50M)**		
11.	Describe the different learning methods in machine learning.	CO1	L2	10M
	OR			
12.	Summarize the Find-S algorithm with an example.	CO1	L3	10M
13.	Explain the purpose of a confusion matrix and how accuracy metrics are used.	CO2	L3	10M
	OR			
14.	Discuss why dimensionality reduction is important and describe the concept of Linear Discriminant Analysis.	CO2	L3	10M
15.	Explain the structure and working of a decision tree with an example.	CO3	L3	10M
	OR			
16.	Explain the Support Vector Machines (SVM) algorithm.	CO3	L2	10M
17.	Describe the K-Means Algorithm in detail.	CO4	L2	10M
	OR			
18.	Explain the working of the k - nearest neighbours method.	CO4	L2	10M
19.	Explain the concept of Boosting in ensemble learning. How does it improve model performance ?	CO5	L3	10M
	OR			
20.	What is a Markov Decision Process ? Explain its components and how it is used to model decision-making in reinforcement learning.	CO5	L3	10M