School of Computing Science and Engineering
B.Tech CSE
ETE - Jun 2023

Time : 3 Hours   Marks : 100

Sem II - E1UA202B - Machine Learning
Your answer should be specific to the question asked
Draw neat labeled diagrams wherever necessary

1.	Illustrate how unlabeled dataset is used in ML using a suitable example.	K2 CO2	(5)
2.	Explain the concept of K-fold Cross Validation in machine learning, and analyze its working mechanism using a specific example.	K3 CO3	(5)
3.	How would you explain hypothesis space and inductive bias?	K1 CO1	(5)
4.	Analyze three different types of machine learning algorithm? Give the example of each.	K4 CO3	(10)

OR

	Analyze the Node selection approach for making the Decision Tree.	K4 CO4	(10)
5.	Describe how labeled dataset is used in machine learning using a suitable example.	K2 CO3	(10)
6.	What do mean by Data and feature? Differentiate between of labelled and unlabelled data	K1 CO2	(10)
7.	List three real-life example where you can use Decision Tree classification. Also Explain the reasons for selection of DT.	K4 CO4	(10)

8.	Identify the differences between labeled and unlabed data in terms of its applications in learning algorithms.	K3 CO2	(15)
9.	Define K-Mean Clustering. How does the K-Mean Clustering algorithm work? Identify the K-Mean Clustering Algorithm.	K3 CO3	(15)
10.	Discuss the challenges of reinforcement learning. Evaluate the performance of a reinforcement learning agent.	K4 CO2	(15)

OR

	Explain the Hierarchical Clustering? Compare and contrast two methods of the Hierarchical Clustering? How the Agglomerative (bottom-up method) works?	K4 CO4	(15)