

PRAGATI ENGINEERING COLLEGE: SURAMPALEM
(AUTONOMOUS)
III B.Tech I Semester Supplementary Examinations, May - 2024

MACHINE LEARNING
(Common to CSE (AIML), CSE(AI) and CSE (DS))

Time: 3 hours

Max. Marks: 70 M

Answer ONE Question from each Unit
All Questions Carry Equal Marks

Q. No.	Questions	BTL	CO	Marks
UNIT – I				
1.	a) What are the main challenges of machine Learning? Explain	K1	CO1	7M
	b) Compare unsupervised learning with supervised learning.	K2	CO1	7M
OR				
2.	a) Compare artificial intelligence, machine learning and deep learning	K4	CO1	7M
	b) Explain about empirical risk minimization.	K2	CO1	7M
UNIT – II				
3.	a) Explain Naïve Bayes theorem with an example.	K3	CO2	7M
	b) Write about linear regression in detail.	K1	CO2	7M
OR				
4.	a) Describe k-nearest neighbors classification with an example.	K3	CO2	7M
	b) Explain generalized linear models	K2	CO2	7M
UNIT – III				
5.	a) Define ensemble learning. Write about random forests.	K1	CO3	7M
	b) Explain about SVM non-linear classification.	K2	CO3	7M
OR				
6.	a) What is Boosting? Explain about AdaBoost in detail.	K1	CO3	7M
	b) Illustrate SVM linear classification.	K3	CO3	7M
UNIT – IV				
7.	a) Write about randomized PCA and kernel PCA.	K1	CO4	7M
	b) Explain about DBSCAN algorithm.	K2	CO4	7M
OR				
8.	a) Explain about anomaly detection using Gaussian Mixtures.	K2	CO4	7M
	b) Explain the mechanisms present in Scikit learn for dimensionality reduction	K2	CO4	7M
UNIT – V				
9.	a) Explain Biological Neurons and Artificial neurons with neat diagrams	K2	C05	7M
	b) Write the steps to install tensor flow	K1	CO5	7M
OR				
10.	a) Explain Multi-Layer Perceptron with diagram	K2	CO5	7M
	b) Write a short note on KERAS	K1	CO5	7M