

SRM UNIVERSITY DELHI-NCR, SONEPAT

Registration No.:

MST-I (October-2022)
B. Tech (CSE) VII Semester

Subject Code: CS 4029

Subject Name: Machine Learning

Duration: 90 min

Max. Marks: 50

Note: Question Paper consists of two parts (Part-A and Part-B).

All Questions are compulsory in Part-A.

Answer any THREE Questions from Part-B

PART A:(10*2)

S.No	Question(s) x 2 Marks each	Course Learning Outcome
1.	What is a machine learning algorithm?	CLO1
2	What is the role of loss function in an ML model?	CLO2
3	Explain the conditional probability with example?	CLO2
4	What do you understand by measure of central tendency?	CLO2
5	What are the broad categories of task in ML?	CLO1
6	What is Instance-based learning?	CLO2
7	Differentiate between uni-variate and multivariate decision trees.	CLO1
8	What is a well posed learning problem?	CLO1
9	Explain the use of Gini-coefficient?	CLO2
10	Draw and explain the entropy curve for two variables?	CLO1

PART B:(10*3)

S. No	Question(s) x 10 Marks each	Course Learning Outcome
1	Discuss various steps required in building a machine learning model, with the help of linear regression technique, assuming scenario of your own.	CLO2
2	Explain the working of following models: a) K-NN b) Support Vector Machines	CLO1
3	Define decision trees. Explain with example how it helps us to solve real world problems	CLO1
4	Consider a bag with 2 red balls and 3 green balls. If these different colors represent different variables of a dataset, explain the steps how you will calculate the information gain. (fractional calculations not necessary, only limit the explanation by equations)	CLO2