LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION – **COMPUTER SCIENCE**

FIRST SEMESTER – **NOVEMBER 2023**

PCS1MC02 – MACHINE LEARNING USING PYTHON

Date: 03-11-2023 Dept. No. Max. : 100 Marks

Time: 01:00 PM - 04:00 PM

	SECTION A – K1 (CO1)	
	Answer ALL the questions	**(5 x 1 = 5)**
1	**Multiple Choice Questions**	
a)	Train the model without the class label is called _____ Learning. a) Supervised b) Un Supervised c) Semi supervised d) Meta	
b)	_____ is used for dimensionality reduction. a) LDA b) PCA c) ROC d) both a & b	
c)	Model is not performing well in training dataset and also in test dataset is called _____. a) Over fitting b) Under fitting c) Fitting d) both a & b	
d)	Count the occurrence of words in a document without giving importance to the grammar and the order of words. a) Word Cloud b) Stemming c) Bag of Word d) N gram	
e)	_____ learning is used to utilize the knowledge gained while solving one problem to solve a different but related problem. a) Reinforcement b) Transfer c) Supervised d) Un supervised	
	SECTION A – K2 (CO1)	
	Answer ALL the questions	**(5 x 1 = 5)**
2	**Fill in the blanks**	
a)	_____ technique is used to predict the categorical value.	
b)	AUC stands for _____.	
c)	Split the dataset into train and test is called_____.	
d)	Removing the prefix or suffix of a word is called _____.	
e)	_____ learning is rewarding desired behaviors and punishing undesired ones.	
	SECTION B – K3 (CO2)	
	Answer any THREE of the following	**(3 x 10 = 30)**
3	Experiment with Exploratory Data Analytics.	
4	Make use of Hierarchal clustering.	
5	Apply the k Fold cross validation.	
6	Utilize the concept of Text similarity.	
7	Explain about Transfer Learning.	
	SECTION C – K4 (CO3)	
	Answer any TWO of the following	**(2 x 12.5 = 25)**
8	Examine the KNN classification algorithm with example.	
9	Analyze the concepts of stacking and bagging.	
10	Examine the Sentiment Analysis Technique.	
11	Analyze the concept of ANN.	

	SECTION D – K5 (CO4)	
	Answer any ONE of the following	**(1 x 15 = 15)**
12	Evaluate the K-Means clustering algorithm with example.	
13	Explain the Random Forest algorithm with example.	
	SECTION E – K6 (CO5)	
	Answer any ONE of the following	**(1 x 20 = 20)**
14	Construct and explain about Ada Boost Algorithm.	
15	Develop and explain the Convolutional Neural Networks.	

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