

Reg. No.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
ANNA UNIVERSITY, CHENNAI-25.



**LABORATORY INTERNAL ASSESSMENT – 1**

**M.E. (CSE / SOFTWARE ENGINEERING / BIG DATA ANALYTICS)**

Session: JUNE 2022 to SEPTEMBER 2022

II Semester - (Regulation R-2019)

**CP5261 / SE5072**

**MACHINE LEARNING TECHNIQUES LABORATORY / FUNDAMENTALS OF MACHINE LEARNING**

Answer Any **TWO** of the following

Time: 2 Hours  
Max. Marks: 20

17/08/2022

**Instructions:**

- Write your Name, Register Number, Branch, and Department.
- Put your signature with date on the first page of the answer booklet.

Q.No	Question	Max marks	CO Mapping
1.	Use the supplied dataset ( <i>car_evaluation.csv</i> ) and build a <b>Naiive Bayesian / Decision Tree classifier (CART)</b> : i) Print the Descriptive statistics of the data ii) Preprocess the data as required iii) preview the data after preprocessing iv) Build the Naiive Bayesian model/Decision Tree model (CART) v) Test the model vi) print the classification report vii) print the confusion matrix  Use the <i>Hyper parameters</i> : test_size = 0.20, random_state = 5	15	CO2
2.	Fine-tune the hyperparameter, <i>test_size</i> (for either of the classifiers of Q-1) by varying the <i>test_size</i> value in small intervals and plot the <i>test_size</i> vs accuracy.	5	CO2
3.	Build a <b>Linear Regression Model</b> on ( <i>50_Startups.csv</i> ) Dataset ➤ Create a scatter plot for any of the features with the target data ➤ Print the Regression equation, intercept, coefficient ➤ Compute and print the R <sup>2</sup> statistic	10	CO2
4.	Build a <b>Linear Support Vector Machine</b> Model on ( <i>Social_Networks_Ads.csv</i> ) Dataset ➤ Preprocess the data as required ➤ Build SVM with linear kernel ➤ Test the model ➤ Prepare Confusion matrix and the Classification report with accuracy score  Use the <i>Hyper parameters</i> : test_size = 0.20, random_state = 2	10	CO2

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