PUNE PUNE INSTITUTE OF COMPUTER TECHNOLOGY
DHANKAWADI, PUNE – 43.

SCHEDULE OF LAB EXPERIMENTS

ACADEMIC YEAR: 2020-21

DEPARTMENT : INFORMATION TECHNOLOGY **Date : - 09/07/2020**

CLASS : B. E. **SEMESTER : I**

SUBJECT: COMPUTER LABORATORY – VII (414458)

Lab Expt. No.	Problem Statement	Last Date for Completion
	Part A- ICS	
1	Write a program in C++ or Java to implement RSA algorithm for key generation and cipher verification.	10/08/20
2	Develop and program in C++ or Java based on number theory such as Chinese remainder	17/08/20
3	Write a program in C++ or java to implement SHA1 algorithm using libraries (API)	24/08/20
4	Configure and demonstrate use of vulnerability assessment tool such as Snort tool for intrusion or SSL Web security.	31/08/20
	Part B- MLA (Any Six)	
5	Study of platform for Implementation of Assignments Download the open source software of your interest. Document the distinct features and functionality of the software platform. You may choose WEKA and R and Python.	07/09/20
6	Supervised Learning - Regression (Using R) Generate a proper 2-D data set of N points. Split the data set into Training Data set and Test Data set. i) Perform linear regression analysis with Least Squares Method. ii) Plot the graphs for Training MSE and Test MSE and comment on Curve Fitting and Generalization Error. iii) Verify the Effect of Data Set Size and Bias-Variance Tradeoff. iv) Apply Cross Validation and plot the graphs for errors. v) Apply Subset Selection Method and plot the graphs for errors. vi) Describe your findings in each case.	14/09/20
7	Create Association Rules for the Market Basket Analysis for the given Threshold. (Using R)	28/09/20

8	Implement K-Means algorithm for clustering to create a Cluster on the given data.(Using Python)	05/10/20

9	Implement SVM for performing classification and find its accuracy on the given data. (Using Python)	12/10/20
10	Creating & Visualizing Neural Network for the given data. (Using Python)	19/10/20
11	On the given data perform the performance measurements using Simple Naïve Bayes algorithm such as Accuracy, Error rate, precision, Recall, TPR,FPR,TNR,FPR etc. (Using WEKA- API through JAVA)	26/10/20
12	Principal Component Analysis-Finding Principal Components, Variance and Standard Deviation calculations of principal components.(Using R)	31/10/20

Subject Coordinator
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