Application of machine learning in industries
LabCode: PCC- AIML 691
Contacts: 4P

Name of the Course:	**Application of machine learning in industries Lab**
Course Code: PCC- AIML 691	Semester: VI
Duration:6 months	Maximum Marks:100
Teaching Scheme:	
Theory: hrs./week	Continuous Internal Assessment
Tutorial: NIL	External Assesement:60
Practical: 4 hrs./week	Distribution of marks:40
Credit Points:	2

1. Explore visualization features of the tool for analysis and WEKA.
2. Perform data preprocessing tasks and Demonstrate performing association rule mining on data sets
3. Demonstrate performing classification on data sets
4. Demonstrate performing clustering on data sets
5. Sample Programs using German Credit Data
6. One approach for solving the problem encountered in the previous question is using cross-validation? Describe what is cross validation briefly. Train a decision tree again using cross validation and report your results. Does accuracy increase/decrease? Why?
7. Check to see if the data shows a bias against “foreign workers” or “personal-status”.. Did removing these attributes have any significantly effect? Discuss
8. Another question might be, do you really need to input so many attributes to get good results? Try out some combinations.
9. Train your decision tree and report the Decision Tree and cross validation results. Are they significantly different from results obtained in problem 6
10. How does the complexity of a Decision Tree relate to the bias of the model?
11. One approach is to use Reduced Error Pruning. Explain this idea briefly. Try reduced error pruning for training your Decision Trees using cross validation and report the Decision Trees you obtain? Also Report your accuracy using the pruned model Does your Accuracy increase?
12.How Can you Convert Decision Tree in to “If then else Rules”.Make Up your own Small Decision Tree consisting 2-3 levels and convert into a set of rules. Report the rule obtained by training a one R classifier. Rank the performance of j48,PART,oneR.