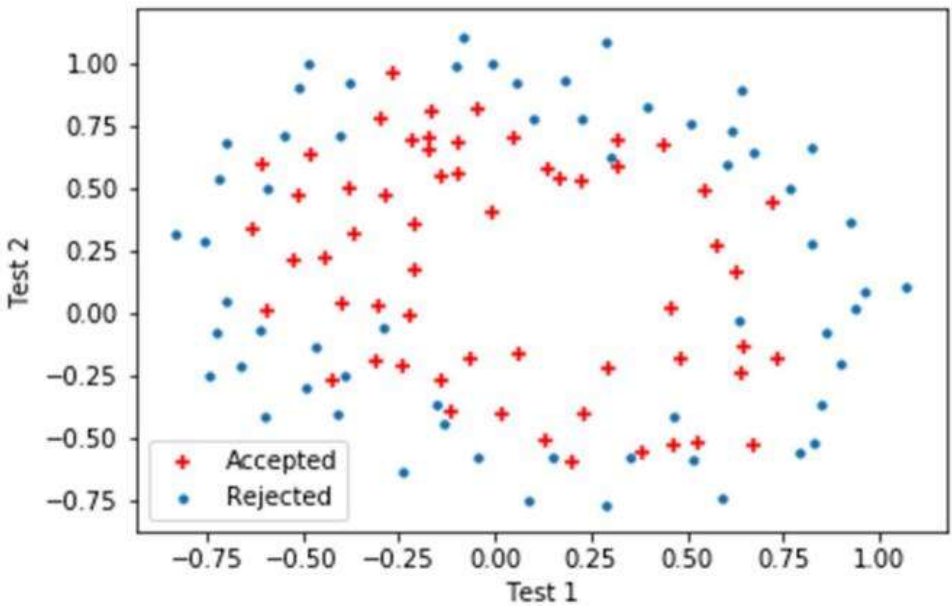


Lab Assignment 5

Machine Learning (UML501)

Q 1	Multiclass Logistic Regression Implement Multiclass Logistic Regression (step-by-step) on Iris dataset using one vs. rest strategy?
Q 2	<p>Ridge Logistic Regression Download the exam dataset from the following link: https://drive.google.com/file/d/1wH6ofvNGPmORFICLt72WGhJYPZiXstYh/view?usp=sharing</p> <p>The dataset labels that whether or not the student will get admission on the basis of the two exam scores. The plot of the data against exam1 and exam2</p>  <p>As clear from the figure, a linear decision boundary does not fit well. So, fit a Logistic Regression Classifier with polynomial function of test1 and test2 scores upto degree 6 using</p> <ol style="list-style-type: none"> Step-by-Step Logistic Regression (with no regularization; $\alpha=10$; number of iterations=1000) Step-by-Step Logistic Regression (with ridge regularization; $\alpha=10$; number of iterations=1000; $\lambda=0.2$)