Question 5

Here there is a single file named svm.py which can be runned as **python svm.py function** name where function name can be **linear, poly or gaussian**

5.a) **support vector: [542 542]**

Accuracy test: 0.976

Accuracy train: 1.0

5.b) **Kernel = Poly**

support vector: [817 938]

Accuracy test: 0.979

Accuracy train: 1.0

Kernel = rbf

support vector: [3000 3000]

Accuracy test: 0.5

Accuracy train: 1.0

All have same train error 0 while the best accuracy was for poly kernel. Also the gaussian generated maximum number of support vectors followed by poly and linear.