

## Gisette Data set

### Qn.5a) Standard run- Linear Kernel

Train error: 0.0

Test error: 0.024000000000000002

No. of Support Vectors: 1084

### Qn.5b)

- (i) RBF with  $\gamma=0.001$

Train error: 0.0

Test error: 0.5

No. of Support Vectors: 6000

- (ii) Polynomial kernel with degree =2 and  $\text{coef0}=1$

Train error: 0.0

Test error: 0.021000000000000002

No. of Support Vectors: 1755

Both the kernels (RBF and polynomial) yields the same training error which is **zero**.