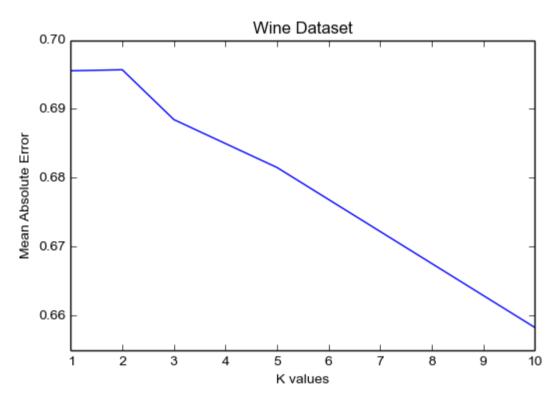
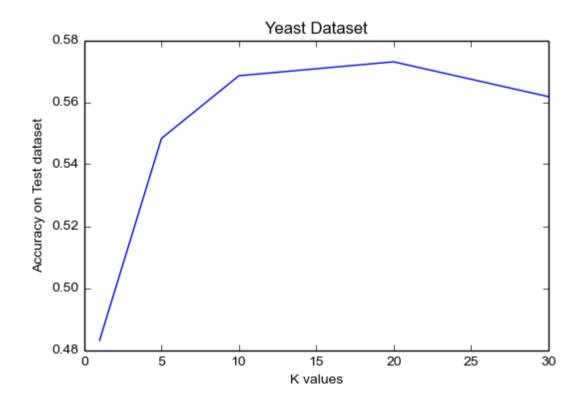
PART 2

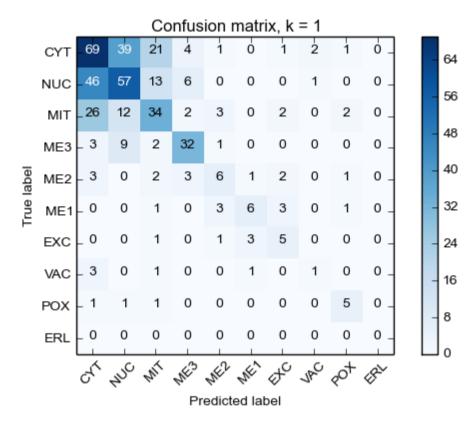
# **Graph for Wine Dataset**



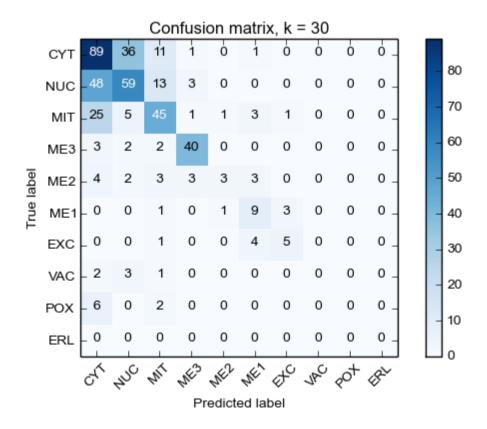
# **Graph for Yeast Dataset**



#### Confusion Matrix for k = 1



#### Confusion Matrix for k = 30



From the above confusion matrices, we infer the following:

- 1) As the k value increases, the number of misclassifications decreases.
- 2) If there are few instances for a class, then the prediction count for those classes decreases as k increases

### PART 3

### Co-ordinates:

a(2,11), b(3,12), c(5,10), d(2,8), e(2,4), f(6,3), g(9,1), h(12, 5), i(10,10), j(13,12)

Q=(7,10)

Action	Distance	Best distance	Best node	Priority Queue
		Infinity		<u>(f,0)</u>
Pop f	7.07	7.07	f	(h,0) (c,1)
Pop h	7.07	7.07	f	(i,0) (c,1) (g,5)
Pop i	3	3	i	(c,1) (j,3) (g,5)
Рор с	2	2	С	(h,0) (e,0) (j,3) (g,5)
Pop b	4.472	2	С	(e,0) (j,3) (a,4) (g,5)
Pop e	7.81	2	С	(d,0) (j,3) (a,4) (g,5)
Pop d	5.385	2	С	(j,3) (a,4) (g,5)
Рор ј	Return c			