3. *Did you tune any methods?* If so, (a) what process(es) did you use to evaluate and compare models and to select your final model (i.e., **I want to see an answer like to the previous question, but relating to how TUNING was done**), and (b) **for each method list all parameter values that were considered** (e.g., "For "Blasting" I use a grid of values with A=(1, 2, 3, ... , 60) and B=(0.00317, sqrt(3.14159)). For "Blooming" I used combinations of (*z,*)=(0.1, 3), (0.5, 6), and (1.1, 12)). I expect maybe 1-2 sentences for each method tuned.

a)

KNN analysis has tuning parameters. I iterated over from 1 to 40 to get the k parameter which returns the smallest misclassification error rate.

NaiveBayes has a tuning parameter. I tried both usekernel = T and usekernerl = F to get the parameter that returns the smallest misclassification error rate.

Classification Trees has a tuning parameter. I tried cp = 0, cp = cp.min and cp = cp.1se and select the value which returns the smallest misclassification error rate.

RandomForest has a tuning parameter. I repeated 5 times to get parameters which returns the smallest misclassification error rate.

b)

knn(): I tuned k = 1…40

NaiveBayes(): I tuned usekernel = T, F

rpart() : I tuned cp=0. cp.min, cp.1se

randomForest(): mtry = 1:6, nodesize = c(1, 5, 10, 15, 20)