5. Random Forest.

```
data = na.omit(read.csv("P2Data2020.csv"))
test = na.omit(read.csv("P2Data2020testX.csv"))
data$Y = factor(data$Y, labels=c("A", "B", "C", "D", "E"))
fit.rf = randomForest(data=data, Y~., mtry=5, nodesize=5, importance=TRUE, keep.forest=TRUE, ntree=500)
Y.hat = predict(fit.rf, newdata = test)
write.table(Y.hat, 'output.csv', sep=',', row.names = F, col.names = F)
```