Machine Learning Assignment

1) A) Least square error
2) A) Linear regression is sensitive
3) B) negative
4) C) Both of them
5) A) high bias and high variance
6) B) predictive model
7) D) Regularization
8) D) SMOTE
9) A) TPR and FPR
10) B) False
11) A) Construction bag of words from an email
12) D) A)
13) Regularization in machine learning refers to a set of techniques that is used to control or prevent overfitting and improve the generalization ability to a dataset model. Overfitting occurs with large data sets especially with some sort of noise feature that needs to be captured. Therefore, regularization is an essential and important tool in improving the performance of model.
14) Several machine learning algorithm includes:
    1. Linear regression with ridge (L2)or lasso regression (L2)
    2. Logistic regression
    3. SMOTE
    4. Neural networks algorithm
    5. Decision tree algorithm
    6. KNN – K nearest neighbour algorithm
15) The difference between the actual observed values and the values projected by the model is referred to as the error term in linear regression, and the goal is to minimize these mistakes in order to achieve an accurate representation of the connection between the variables.