MACHINE LEARNING

1. D) Both A and B
2. A) Linear regression is sensitive to outliers
3. B) Negative
4. C) Both of them
5. C) Low bias and high variance
6. B) Predictive modal
7. D) Regularization
8. D) SMOTE
9. A) TPR and FPR
10. B) false
11. A) Construction bag of words from a email
12. C) We need to iterate. D) It does not make use of dependent variable.

13. It is used to to prevent overfitting and improve the generalization performance of a model . Regularization introduces a penalty term to the model's objective function, discouraging overly complex models that fit the training data too closely.

    L1 Regularization (Lasso): L1 regularization adds a penalty term proportional to the absolute values of the coefficients
    L2 Regularization (Ridge): L2 regularization adds a penalty term proportional to the square of the coefficients

14. There are three main regularization techniques, namely:

    Ridge Regression (L2 Norm)

    Lasso (L1 Norm)

    Dropout.

    K-Nearest Neighbors (KNN)

15. An error term represents the margin of error within a statistical model; it refers to the sum of the deviations within the regression line, which provides an explanation for the difference between the theoretical value of the model and the actual observed results.