ANSWERSHEET MACHINE LEARNING ASSIGNMENT - 1

Date – 16/04/2023

1. Answer Option "D" (Both A & B)
2. Answer Option "A" – (Linear Regression is sensitive to outliers)
3. Answer Option "B" – (Negative)
4. Answer Option "B" – (Corelation)
5. Answer Option "C" – (Low Bias and high variance)
6. Answer Option "B" – (Predictive Model)
7. Answer Option "D" – (Regularization)
8. Answer Option "D" – (SMOTE)
9. Answer Option "A" – (TPR AND FPR)
10. Answer Option "B" – (False)
11. Answer Option "A" (Construction bag of words from email)
12. Answer Option "A" – (We Don't have to choose the learning rate)

13. **Regularization** – In Machine Learning Regularization is used to improve generalization of a model to any new given data and to prevent it's over fitting , it is mainly divided in 2 types – a. L1 Regularization (Lasso)
    b. L2 Regularization (Ridge)

14. **Algorithms used for Regularization** –
    a. Linear Regression
    b. Logistics Regression
    c. SVM'S
    d. Neural Networks
    e. Decision Trees
    f. KNN (K-Nearest Neighbours)

15. **Error in Linear Regression Equation** – it is the difference between the predicted values of the dependent variables and actual values of dependent variables. It is also known as residual and is denoted by the symbol **"e"**
    Mathematically Linear Regression is represented as – y = b0 + b1*x1 + e
    Where e is the error term

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