

### **Assignment-39 : Name of the Intern: Ravindra Hanchate**

1. Which of the following methods do we use to find the best fit line for data in Linear Regression?

**Ans: A. Least Square Error.**

2. Which of the following statement is true about outliers in linear regression?

**Ans: A. Linear regression is sensitive to outliers.**

3. A line falls from left to right if a slope is -----?

**Ans: B. Negative**

4. Which of the following will have symmetric relation between dependent variable and independent variable?

**Ans: B. Correlation**

5. Which of the following is the reason for the overfitting condition?

**Ans: C. Low bias and High variance.**

6. If the output involves a label then that model is called as:

**Ans: B. Predictive Model.**

7. Lasso and Ridge Regression Techniques belongs to

**Ans: D. Regularization.**

8. To overcome with imbalance dataset which technique can be used?

**Ans: A. Cross Validation.**

9. The AUC Receiver Operator Characteristics (AUCROC) curve is an evaluation metric for binary classification problems. It uses----- to make graph?

**Ans: A. TPR and FPR.**

10. In AUC Receiver Operator Characteristic (AUCROC) curve for the better model area under the curve should be less.

**Ans: B. False.**

11. Pick the feature extraction from below.

**Ans: B. Apply PCA to project high dimensional data**

12. Which of the following is true about Normal Equation used to compute the coefficient of the Linear Regression?

**Ans: A. We don't have to choose the learning rate.**

**B. It becomes slow when numbers of features is very large.**

13. Explain the term regularization?

**Ans:** Regularization is one of the most important concepts of machine learning. It is a technique to prevent the model from overfitting by adding extra information to it. Sometimes the machine learning model performs well with the training data but does not perform well with the test data. It means the model is not able to predict the output when deals with unseen data by introducing noise in the output and hence the model is called overfitted. This problem can be deal with the help of regularization technique.

14. Which particular algorithms are used for regularization?

**Ans: L1: LASSO (Least Absolute Shrinkage and Selection Operator)**

**L2: Ridge Regressions.**

**These two are used for regularization.**

15. Explain the term error present in linear regression?

**Ans.** The term error is the difference of the expected value(result) and the value(result) that was actually observed. Linear Regression most often uses mean square error(MSE) to calculate the error of the model. MSE is calculated by measuring the distance of the observed squaring each of these distances and calculating the mean of each of the squared distances.