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

Ans :- Least Square Error

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

Ans :- Linear regression is sensitive to outliers

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

Ans :- Positive

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

Ans :- Correlation

5. Which of the following is the reason for over fitting condition?

Ans :- none of these

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

Ans :- Descriptive model

7. Lasso and Ridge regression techniques belong to_____?

Ans :- Cross validation

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

Ans :- SMOTE

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

Ans :- TPR and FPR.

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

Ans :- True.

11. Pick the feature extraction from below:

Ans :- 1,2,3

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

Ans :- Apply PCA to project high dimensional data

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 a regularization technique.This technique can be used in such a way that it will allow to maintain all variables or features in the model by reducing the magnitude of the variables. Hence, it maintains accuracy as well as a generalization of the model.It mainly regularizes or reduces the coefficient of features toward zero. In simple words, "In regularization technique, we reduce the magnitude of the features by keeping the same number of features."

14. Which particular algorithms are used for regularization?

Ans :- Algorithems used for regularization are :-

- Ridge Regression
- LASSO (Least Absolute Shrinkage and Selection Operator) Regression
- Elastic-Net Regression

15. Explain the term error present in linear regression equation?

Ans :- Within a linear regression model tracking a stock's price over time, the error term is the difference between the expected price at a particular time and the price that was actually observed. In instances where the price is exactly what was anticipated at a particular time, the price will fall on the trend line and the error term will be zero.