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

A) Least Square Error

B) Maximum Likelihood

C) Logarithmic Loss

D) Both A and B

Ans- D) Both A and B

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 over fitting condition?

Ans- C) Low bias and high variance

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

Ans- B) Predictive modal

7. Lasso and Ridge regression techniques belong to _____?

Ans- D) Regularization

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

Ans- D) SMOTE

9. The AUC Receiver Operator Characteristic (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 number of features is very large.

13.Explain the term Regularization.

Ans-Regularization is a technique in machine learning that adds constraints or penalties to the model's training processes to prevent overfitting.it helps the strike balance between fitting the training data well and generalizing the new ,unseen data.

14.which particular algorithms are used for regularization?

Ans-Ridge Regression, Lasson Regression , Elastic net Regression .

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

Ans-the error in the linear regression equation referees to the difference between the predicated

Value by the linear model and the actual observed valued in the dataset. The goal of linear regression is to minimize this error , often measured using least square method , in order to find the best-fitting line for the given data.