MACHINE LEARNING

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 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 used to prevent overfitting in machine learning models. It introduces a penalty term to the loss function, discouraging complex models and encouraging simpler ones. This helps to improve the model's generalization performance

14. Which particular algorithms are used for regularization?

Ans - Lasso regression

Ridge regression

Elastic Net

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

Ans - The error in linear regression is the difference between the predicted value and the actual value for a given data point. It's often referred to as the residual. The goal of linear regression is to minimize the sum of squared errors (SSE) to find the best-fitting line