Machine Learning

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

2. Which of the following statement is true about outliers in linear regression?
B) linear regression is not sensitive to outliers

3. A line falls from left to right if a slope is _____?
B) Negative

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

5. Which of the following is the reason for over fitting condition?
C) Low bias and high variance

6. If output involves label then that model is called as:
B) Predictive modal

7. Lasso and Ridge regression techniques belong to _____?
D) Regularization

8. To overcome with imbalance dataset which technique can be used?
A) Cross validation

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

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

11. Pick the feature extraction from below:
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?
A) We don't have to choose the learning rate.
B) It becomes slow when number of features is very large.

Subjective Type Questions
13. Explain the term regularization?

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.

14. Which particular algorithms are used for regularization?

There are a range of different regularization techniques. The most common approaches rely on statistical methods such as lasso regularization (also called L1 regularization), ridge regularization (L2 regularization) and elastic net regularization, which combines both Lasso and Ridge techniques.

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

An error term represents the margin of error within a statistical model; it refers to the sum of the deviations within the regression line, which provides an explanation for the difference between the theoretical value of the model and the actual observed results.