Q 01. Which of the following methods do we use to find the best fit line for data in Linear Regression?

A 01. A) Least Square Error

Q 02. Which of the following statement is true about outliers in linear regression?

A 02. A) Linear regression is sensitive to outliers

Q 03. A line falls from left to right if a slope is _____?

A 03. B) Negative

Q 04. Which of the following will have symmetric relation between dependent variable and independent variable?

A 04. C) Both of them

Q 05. Which of the following is the reason for over fitting condition?

A 05. C) Low bias and high variance

Q 06. If output involves label then that model is called as:

A 06. B) Predictive modal

Q 07. Lasso and Ridge regression techniques belong to _____?

A 07. D) Regularization

Q 08. To overcome with imbalance dataset which technique can be used?

A 08. A) Cross validation

Q 09. The AUC Receiver Operator Characteristic (AUCROC) curve is an evaluation metric for binary classification problems. It uses _____ to make graph?

A 09. C) Sensitivity and Specificity

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

A 10. B) False

Q 11. Pick the feature extraction from below:

A 11. B) Apply PCA to project high dimensional data

Q12. Which of the following is true about Normal Equation used to compute the coefficient of the Linear Regression?

A 12. A) We don’t have to choose the learning rate.

C) We need to iterate.

Q 13. Explain the term regularization?

A 13. Regularization is used to adjust machine learning models in order to minimize the loss function and prevent overfitting or underfitting. Using Regularization, we can fit our machine learning model appropriately on a given test set and reduce the errors in it.

Q 14. Which particular algorithms are used for regularization?

A 14. Three main regularization algorithms are -

1. Ridge Regression
2. LASSO (Least Absolute Shrinkage and Selection Operator) Regression
3. Elastic-Net Regression

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

A 15. 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.

An error term means that the model is not completely accurate and results in differing results during real-world applications.

An error term is generally unobservable and represents the way observed data differs from the actual data.