

MACHINE LEARNING

In Q1 to Q11, only one option is correct, choose the correct option

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?

A) Linear regression is sensitive to outliers

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

A) Positive

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:

A) Descriptive model

7. Lasso and Ridge regression techniques belong to _____?

D) Regularization

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

D) SMOTE

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

C) Sensitivity and Specificity

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

A) True

11. Pick the feature extraction from below:

B) Apply PCA to project high dimensional data

In Q12, more than one options are correct, choose all the correct options:

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.

D) It does not make use of dependent variable

Q13 and Q15 are subjective answer type questions, Answer them briefly

13. Explain the term regularization?

The word regularize means to make things regular or acceptable. This is exactly why we use it for. Regularizations are techniques used to reduce the error by fitting a function appropriately on the given training set and avoid overfitting.

14. Which algorithms are used for regularization?

Ridge Regression (L2 Norm)

Lasso (L1 Norm)

Dropout

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.