

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?

Answer: -A) Least Square Error

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

Answer: -A) Linear regression is sensitive to outliers

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

Answer: - B) Negative

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

Answer: - B) Correlation

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

Answer: - C) Low bias and high variance

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

Answer: -B) Predictive modal

7. Lasso and Ridge regression techniques belong to _____?

Answer: - D) Regularization

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

Answer: - D) SMOTE (synthetic minority oversampling technique)

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

Answer: - C) Sensitivity and Specificity

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

Answer: -A) True

11. Pick the feature extraction from below:

Answer: -A) Construction bag of words from an email

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

Answer: -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?

Answer: -Regularizations are technique used to reduce the Errors by fitting function appropriately on the given training set to avoid over fitting. Also, this regularizes the coefficient estimates towards zero. This technique forces us not learn more complex and flexible model, to avoid the problem of overfitting.

14. Which particular algorithms are used for regularization?

Answer: -1) L1(Lasso)

2)L2 (Ridge)

3)Dropout

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

Answer: - It is the difference between the predicted value and actual value

i.e.: -linear regression on training stock price, it is the difference between the expected price at particular time and actual price