

FLIP ROBO TECHNOLOGIES

INTERNSHIP – DS0523

PROJECT - BATCH DS2311

MOHAN G

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
- B) Maximum Likelihood
- C) Logarithmic Loss
- D) Both A and B

Solution: A) Least Square Error

Linear Regression is a statistical method used to model the relationship between a dependent variable and one or more independent variables. It helps to find the best-fit line that minimizes the difference between the observed values and the values predicted by the linear model. This process is done by minimizing the sum of squared differences between the observed and predicted values.

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

- A) Linear regression is sensitive to outliers
- B) linear regression is not sensitive to outliers
- C) Can't say
- D) none of these

Solution: A) Linear regression is sensitive to outliers

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

- A) Positive
- B) Negative
- C) Zero
- D) Undefined

Solution: B) Negative

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

- A) Regression
- B) Correlation
- C) Both of them
- D) None of these

Solution: C) Both of them

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

- A) High bias and high variance
- B) Low bias and low variance
- C) Low bias and high variance

D) none of these

Solution: C) Low bias and high variance

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

- A) Descriptive model
- B) Predictive modal
- C) Reinforcement learning
- D) All of the above

Solution: B) Predictive modal

7. Lasso and Ridge regression techniques belong to _____?

- A) Cross validation
- B) Removing outliers
- C) SMOTE
- D) Regularization

Solution: D) Regularization

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

- A) Cross validation
- B) Regularization
- C) Kernel
- D) SMOTE

Solution: D) SMOTE

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
- B) Sensitivity and precision
- C) Sensitivity and Specificity
- D) Recall and precision

Solution: A) TPR and FPR

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

- A) True
- B) FALSE

Solution: B) FALSE

11. Pick the feature extraction from below:

- A) Construction bag of words from a email
- B) Apply PCA to project high dimensional data
- C) Removing stop words
- D) Forward selection

Solution: A) Construction bag of words from a email

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.
- B) It becomes slow when number of features is very large.
- C) We need to iterate.
- D) It does not make use of dependent variable.

Solution: A) We don't have to choose the learning rate.
B) It becomes slow when number of features is very large