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?

Ans- Least squares method

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

Ans- A(Linear regression is sensitive to outlier)

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

Ans- negative

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

Ans- C (Both of them)

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

Ans- C (Low bias and high variance)

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

Ans- B (Predicted model)

7. Lasso and Ridge regression techniques belong to _____?

Ans- D (Regularization)

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

Ans- D (SMOTE)

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

Ans- C (Sensitivity and Specificity)

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

Ans- A (True)

11. Pick the feature extraction from below:

Ans- 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?

Ans- B (It becomes slow when number of features is very large)

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

13. Explain the term regularization?

Ans- Regularization is technique used to reduce the errors by fitting the function appropriately on the given training set and avoid overfitting.

the commonly used regularization techniques are:

1.L1 regularization

2.L2 regularization

3.Dropout regularization

14. Which particular algorithms are used for regularization?

Ans- 1.L1 regularization (Lasso regularization)

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

Ans- Considering the Linear Regression model has been given it will give us an expected value for a certain set of features in data. The difference between the expected and the actual value is defined on some exogenous factor, this exogenous factor is often termed as error term.