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?

Ans. A) Maximum Likelihood

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

Ans. A) Linear regression is sensitive to outliers

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

Ans. B) Negative

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

Ans. B) Correlation

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

Ans. D) none of these

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

Ans. B) Predictive modal

7. Lasso and Ridge regression techniques belong to _____?

Ans. D) Regularization

8. To overcome with imbalance dataset which technique can be used?
   A) Cross validation

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

Ans. D) Recall and precision

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. 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?

Ans. 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?

Ans. Regularization refers to techniques that are used to calibrate machine learning models in order to minimize the adjusted loss function and prevent overfitting or underfitting.

13. Which particular algorithms are used for regularization?

Ans. Regularization is a 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. Explain the term error present in linear regression equation?

Ans. a linear regression model tracking a stock's price over time, the error term is the difference between the expected price at a particular time and the price that was actually observed.