ASSIGNMENT – 39 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 _____?

B) Negative

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

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

A) High bias and high variance

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

D) All of the above

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?

A) TPR and FPR

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

B) False

11. Pick the feature extraction from below:

A) Construction bag of words from a email.

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?

B) It becomes slow when number of features is very large.

C) We need to iterate.

ASSIGNMENT – 39 MACHINE LEARNING Q13 and Q15 are subjective answer type questions, Answer them briefly.

13. Explain the term regularization?

Ans- Regularization is a technique used for tuning the function by adding an additional penalty term in the error function. The additional term controls the excessively fluctuating function such that the coefficients don't take extreme values.

14. Which particular algorithms are used for regularization?

Ans-Therefore, the value of λ should be carefully selected. This is all the basic you will need, to get started with Regularization. It is a useful technique that can help in improving the accuracy of your regression models. A popular library for implementing these algorithms is Scikit-Learn.

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

Ans-Within 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. In instances where the price is exactly what was anticipated at a particular time, the price will fall on the trend line and the error term will be zero.