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?

B) linear regression is not 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?

B) Correlation

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

C) Low bias and high variance

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

A) Descriptive model

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:

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?

A) We don't have to choose the learning rate.

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

D) It does not make use of dependent variable.

ASSIGNMENT – 39

MACHINE LEARNING

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

13. Explain the term regularization?

Ans.: It is a technique used to reduce overfitting of data means to make data regular/acceptable. It is one of the techniques that we are using to reduce the error using the given training set data and avoiding the overfitting.

14. Which particular algorithms are used for regularization?

Ans.: LASSO, RIDGE, Elastic Net, Early Stopping algorithms are used for the regularization.

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

Ans.: The term error presents the average distance of observed values fall from the regression line. It gives the idea of how wrong the regression model is. In simple words, it shows how observed data differs from actual population data.