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) Least Square Error

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 ____Negative_____.

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

Ans > B) Correlation

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) Predictive modal

7 . Lasso and Ridge regression techniques belong to _____?
Ans > B) 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 > A) TPR AND FPR

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:

Which of the following is true about Normal Equation used to compute the coefficient of the Linear Regression?
Ans > A,B,C

MACHINE LEARNING

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

13. Explain the term regularization?

ANS > REGULARIZATION is a technique to prevent overfitting in defined machine learning models . in machine learning sometimes the model performs well with the training data but does not perform well with test data . so as the model is not able to predict the output when it deals with unseen data by introducing noise in the output ,and that model is overfitted model and that problem can be deal by regularization .

14 . Which particular algorithms are used for regularization?

Ans > The two main important algorithm which are used in regularization is :

(1) Ridge Regression(L2 norm)

(2) Lasso (L1 norm)

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

Ans> the error present in linear regression is the difference between the predicted value and the actual value of the dependent variable . which is also known as residual . the error term is also used for calculating the accuracy in model .