1. Which of the following methods do we use to find the best fit line for data in Linear Regression?
A) Least Square Error B) Maximum Likelihood C) Logarithmic Loss D) Both A and B

Answer-D

2. Which of the following statement is true about outliers in linear regression? A) Linear regression is sensitive to outliers B) linear regression is not sensitive to outliers C) Can't say D) none of these

Answer- A

3. A line falls from left to right if a slope is _____? A) Positive B) Negative C) Zero D) Undefined

Answer-B

4. Which of the following will have symmetric relation between dependent variable and independent variable? A) Regression B) Correlation C) Both of them D) None of these

Answer-B

5. Which of the following is the reason for over fitting condition? A) High bias and high variance B) Low bias and low variance C) Low bias and high variance D) none of these

Answer- C

6. If output involves label, then that model is called as: A) Descriptive model B) Predictive modal C) Reinforcement learning D) All of the above

Answer-B

7. Lasso and Ridge regression techniques belong to _____? A) Cross validation B) Removing outliers C) SMOTE D) Regularization

Answer-D

8. To overcome with imbalance dataset which technique can be used? A) Cross validation B) Regularization C) Kernel D) SMOTE

Answer-D

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 B) Sensitivity and precision C) Sensitivity and Specificity D) Recall and precision

Answer- A

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

Answer- False

11. Pick the feature extraction from below: A) Construction bag of words from a email B) Apply PCA to project high dimensional data C) Removing stop words D) Forward selection

Answer-A

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. C) We need to iterate. D) It does not make use of dependent variable.

Answer-A

13. Explain the term regularization?

Answer- Regularization is a technique used in machine learning to prevent overfitting and improve the generalization of models. The goal of regularization is to add some form of "penalty" or constraint to the model during training, in order to discourage it from fitting too closely to the training data and instead encourage it to find a more generalizable solution.

14. Which particular algorithms are used for regularization?

Answer- Regularization is a technique that can be applied to a wide variety of machine learning algorithms, including linear regression, logistic regression, support vector machines, neural networks

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

Answer- the error term represents the difference between the actual values of the dependent variable and the predicted values generated by the linear regression model.