Machine learning Assignment.

1. Which of the following methods do we use to find the best fit line for data in Linear Regression?
   Answer-A) Least Square Error
2. Which of the following statement is true about outliers in linear regression?
   Answer-A) Linear regression is sensitive to outliers.
3. A line falls from left to right if a slope is _____?

Answer-B) Negative
Answer-C) Both of them

4. Which of the following will have symmetric relation between dependent variable and   independent variable? Which of the following is the reason for over fitting condition?
   Answer-C) Low bias and high variance

5. If output involves label then that model is called as:
A) Descriptive model B) Predictive modal
   C) Reinforcement learning D) All of the above
   7. Lasso and Ridge regression techniques belong to _____?
   Answer-D) Regularization
   8. To overcome with imbalance dataset which technique can be used?
   Answer-A) Cross validation

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

10. In AUC Receiver Operator Characteristic (AUCROC) curve for the better model area under the
   curve should be less.
   Answer-B) False
   11. Pick the feature extraction from below:
   Answer-A) Construction bag of words from a email

12. Which of the following is true about Normal Equation used to compute the coefficient of the Linear Regression?
Answer-A) We don't have to choose the learning rate.
B) It becomes slow when number of features is very large.

13. Explain the term regularization?

Answer-Regularizations are techniques used to reduce the error by fitting a function appropriately on the given training set and avoid overfitting. It is also used for tuning the function by adding an additional penalty term in the error function.

14. Which particular algorithms are used for regularization?

Answer-Regularization refers to a set of techniques that help the machine to learn more than just to memorize it There are mainly 3 techniques or algorithms used namely

1. 1. Ridge Regression (L2 Regularization) 2 lasso(L1 Regularization)3 Dropout

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

Answer-The error term in a regression equation represents the effect of the variables that were omitted i.e excluded from the equation