

## Machine Learning

### Answers : -

1. A) Least Square Error
2. A) Linear regression is sensitive to outliers
3. A) Positive
4. B) Correlation
5. C) Low bias and high variance
6. B) Predictive model
7. D) Regularization
8. d) SMOTE
9. C) Sensitivity and Specificity
10. A) True
11. A) Construction bag of words from a email
12. B) It becomes slow when number of features is very large. and D) It does not make use of dependent variable
13. Explain the term regularization?

It is a technique to prevent the model from overfitting by adding extra information to it. model performs well with the training data but does not perform well with the test data. It means the model is not able to predict the output when deals with unseen data by introducing noise in the output, and hence the model is called overfitted. This problem can be deal with the help of a regularization technique. This technique can be used in such a way that it will allow to maintain all variables or features in the model by reducing the magnitude of the variables. Hence, it maintains accuracy as well as a generalization of the model. It mainly regularizes or reduces the coefficient of features toward zero.

14. Which particular algorithms are used for regularization?

Ridge Regression

Lasso Regression

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

The Error term is the difference between the expected price at a particular time and the price that was actually observed.