

# MACHINE LEARNING

Ans1) A) Least Square Error

Ans2) A) Linear regression is sensitive to outliers

Ans3) B) Negative

Ans4) B) Correlation

Ans5) C) Low bias and high variance

Ans6) B) Predictive model

Ans7) D) Regularization

Ans8) A) Cross validation

Ans9) A) TPR and FPR

Ans10) A) True

Ans11) B) Apply PCA to project high dimensional data

Ans12) 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 ..A,B,C ARE CORRECT

## SUBJECTIVE ANSWER

13. Explain the term regularization?

Ans) Regularization refers to a technique basically used to minimize the loss function which helps to calibrate the machine learning models effectively by minimizing underfitting and overfitting.

Using regularization, we can fit our machine learning models appropriately on a given test set and

Hence reduce error in it.

There are two main type of regularization technique..

- a) Ridge
- b) Lasso

**14. Which particular algorithms are used for regularization?**

Ans) There are mainly two algorithm used for regularization .

- a) Ridge regularization = it modifies the overfitted and underfitted models by adding the penalty equivalent to the sum of the squares of the magnitude of the coefficient.
- b) Lasso regularization == it modifies the overfitted and underfitted models by adding the penalty equivalent to the sum of the absolute value of coefficient.

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

Ans) It basically represents the average distance that the observed value is from the regression line. so it basically determine the accurateness of the samples. smaller value provide better results as it shows that the observations are closer to the fitted line.