

# Machine learning

Q:1 ans= (A)least square error

Q2:ans=(A)linear regression is sensitive to outliers

Q3:ans=(B)negative

Q4:ans=(b) correlation

Q5:ans=(C) low bias and high variance

Q6:Ans=(B) predictive model

Q7:Ans=(d) regularization

Q8:Ans=(C) kernel

Q9:Ans=(A)tpr and fpr

Q10:Ans=(B) false

Q11:Ans=(B) apply pca to project high dimensional data

Q12:Ans=(C) we need to iterate

(D)it doesn't make a use of dependent variables

Q13:ans=regularization is a technique used to reduce error by fitting the function appropriately on the given training set and avoiding overfitting .we used some very common regularization technique are:

(a) Lasso regularization

(b) Ridge regularization

Q14:ans=there are some algorithm of regularization are

- (a) Lasso regression-a regression model which uses the L1 regularization technique is called lasso (least absolute shrinkage and selection operator) regression. and it is also called penalized regression method. this method is usually used in machine learning to find the selection of the subset of variables and it is very commonly used by experts or experienced person in ML.
- (b) Ridge regression-a regression model that uses the L2 regularization technique is called ridge regression. ridge regression adds the "square magnitude" of the coefficient as a penalty term to the loss function  $L$  and also ridge is a specialized technique used to analyze multiple regression data that is multicollinear in nature.

Q15:ans=An error term represents the margin of error within a statistical model. linear regression most often uses mean squares error (MSE) to calculate the error of the model. mse is calculated by:

1-squaring each of these distance

2-calculating the mean of each of the squared distance

Linear regression fits a line to the data by finding the regression coefficient that results in the smallest mse.