MACHINE LEARNING

ANS. NO.	OPTION	ANSWER
1	(A)	Least Squre Error
2	(B)	linear regression is not sensitive to outliers
3	(B)	Negative
4	(A)	Regression
5	(C)	Low bias and high variance
6	(B)	Pridictive modal
7	(D)	Regularization
8	(A)	Cross validation
9	(A)	/TPR and FPR
10	(B)	False
11	(B)	Apply PCA to project high dimensional
12	(A),(B) & (C)	(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.

SUBJECTIVE ANSWER

ANSWER 13 Regularization is a set of method for reducing overfitting in machine learning Models. Typically, regularization trades a marginal decrease in training Accuracy for an increase in generalizability.

ANSWER 14 Elastic net (lesso regression (L1)+Ridge regression(L2)) are use for Regularization.

ANSWER 15 In a linear regression equation, an error term (also known as a residual or Disturbance term) represents the defference between the observed value of The dependent variable(Y) and the predicted value of the dependent variable Based on the regression line.

The term error is denoted by **ε**(epsilon) and is added to the linear regression equation as Follows.

$Y = \beta 0 + \beta 1x + \varepsilon$

Here

Y is the dependent variable

X is the independent variable

β 0 is the intercept or constant term

β 1 is the slope coefficient

ε is the error term

The error term accounts for the cariability in the data that is not explained by the linear relationship between x and y. it represent the random fluctuations or noise in the data.