Machine Learning

1	A
2	A
3	B
4	B
5	C
6	B
7	D
8	D
9	A
10	B
11	B
12	A,B,C

Q .13 Regularization

Ans- Regularization are techniques used to reduce the error by fitting a function appropriately on the given training set and avoid overfitting and underfitting.

1. By using regularization, we can fit model appropriately on a given set and hence reduce the error.
2. Regularization Techniques.
   A. Ridge Regularization
   B. Lasso Regularization

Q. 14 Algorithms are used for regularization

1. Ridge Regression

$$Loss=\sum(y_i-(w_ix_i+c))^2+ ٢\sum w_i^2$$

1. Lasso Regression

$$Loss=\sum(y_i-(w_ix_i+c))^2+ ٢\sum w_i$$

Q. 15 Error Term in Linear regression equation

Linear Regression Equation

$$Y=a+ b x+ e$$

Y= Dependant Variable

a= intercept

b=slope

x=independent variable

e= Error

Error= Error is the Difference between the actual data and machine Given data.

If there is difference between the machine given data and the data we calculated then there is an error accrued.

Least Squares

1. Linear Regression Try to make a Best fit Line.
2. Best Fit Means difference between actual Y values and predicted Y values is a minimum.

$$=\sum (x_1-Y_1)^2$$
$$=\sum (E_1)^2$$