Answers: -

**In Q1 to Q11**

1. A) Least Square Error
2. A) Linear regression is sensitive to outliers
3. B) Negative
4. B) Correlation
5. C) Low bias and high variance
6. B) Predictive modal
7. D) Regularization
8. B) Regularization
9. A) TPR and FPR
10. B) False
11. D) Forward selection
12. D) It does not make use of dependent variable.

**Q13 and Q15**

13. Explain the term regularization?

* Regularization is concept in machine learning which prevents model from over fitting.
* It will form a regression that will shrink the co-efficient/ slop of the variable which will help to avoid the over fitting.
* many times the model will perform good on train data but not on the test data. which means low bias and high variance. Here the regularization will help.

14. Which particular algorithms are used for regularization?

* 2 techniques are used in regularization.
  + Lasso regression – unwanted variable’s co-efficient/slop will be bringing down to zero.
    - Equation is: (y-y^)2+lambda\*(slop)2

* + Ridge regression – it will minimize the slope/co efficient towards to zero but not as a zero.
    - Equation is: (y-y^)2+lambda\*| slop|

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

* Sum of Squared error= SSE.
  + its basically explains how far the predicted from value from the actual values.
  + Equation is : sum(y-y^)2