

PFA Worksheet Set 1

1. (a)
2. (a)
3. (b)
4. (b)
5. (b)
6. (b)
7. (a)
8. (b)
9. (a)
10. (a)
11. (b)
12. (a), (b), (c)
13. Regularization in machine learning prevents overfitting by adding a penalty to the loss function, encouraging simpler models. It helps improve generalization performance by balancing the fit to training data and the penalty term, resulting in more robust and reliable predictions.
14. There are three main regularization technique, namely
 - (i) Ridge regression
 - (ii) Lasso
 - (iii) Dropout
15. In the context of linear regression, the term "error" refers to the discrepancy between the predicted value of the dependent variable and the actual observed value. It represents the unexplained or residual variation that the linear regression model is unable to capture, and minimizing this error is the goal of regression analysis.