Machine Learning Assignment

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

13. Explain the term regularization?

    Regularization is a technique used in machine learning to prevent overfitting by adding a penalty term to the objective function. It includes penalizing the model's complexity by including a regularization element in the cost function. This aids in managing the feature weights and keeps them from growing excessively and leading to overfitting.

14. Which particular algorithms are used for regularization?

    Several machine learning techniques can be used with regularization. Commonly used techniques with regularization include Ridge Regression (L2 regularization), Lasso Regression (L1 regularization), and Elastic Net (combination of L1 and L2 regularization).

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

    The discrepancy between the model's projected values and the actual observed values in the dataset is referred to as the error in the linear regression equation. It is sometimes referred to as the residual or the difference between the regression model's projected value and the actual value of the dependent variable. The goal of linear regression is to obtain the best-fit line that depicts the relationship between the independent and dependent variables by minimizing these errors.