Python

1. A
2. B
3. C
4. A
5. D
6. C
7. A
8. D
9. A & C
10. A & B
11. Attached in Jupyter notebook file (https://github.com/Azhar747)
12. Attached in Jupyter notebook file (https://github.com/Azhar747)
13. Attached in Jupyter notebook file (https://github.com/Azhar747)
14. Attached in Jupyter notebook file (https://github.com/Azhar747)
15. Attached in Jupyter notebook file (https://github.com/Azhar747)

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. C & D
13. Regularization is one of the most important concepts of machine learning. It is a technique to prevent the model from over fitting by adding extra information to it. Sometimes the machine learning model performs well with the training data but does not perform well with the test data. It means the model is not able to predict the output when deals with unseen data by introducing noise in the output, and hence the model is called over fitted. This problem can be deal with the help of a regularization technique. This technique can be used in such a way that it will allow to maintain all variables or features in the model by reducing the magnitude of the variables. Hence, it maintains accuracy as well as a generalization of the model.
    Under fitting ——————————————————Over fitting
    (High Bias) (High Variance)
14. There are two main techniques used for Regularization (For Regression)
    1. Ridge Regression (L2)
    2. Lasso Regression (L1)

15. Linear regression most often uses mean-square error (MSE) to calculate the error of the model. MSE is calculated by measuring the distance of the observed y-values from the predicted y-values at each value of x; squaring each of these distances; calculating the mean of each of the squared distances.
    Linear regression fits a line to the data by finding the regression coefficient that results in the smallest MSE.