Machine Learning

1)-A

2)-A

3)-B

4)-B

5)-C

6)-B

7)-D

8)-D

9)-C

10)-B

11)-A

12)-D

13) Regularization is a technique used to reduce the errors by fitting the function appropriately on the given training set and avoid over fitting. This over fitting occurs when a Machine Learning model is constraint to training set and not able to perform well on unseen data so we use regularization to overcome it.

14)Lasso Regularization and Ridge Regularization and Elastic Net Regularization.

15) In Linear Regression model Error term means the difference between the expected o/p and observed o/p at a particular instance.

Python

1.C

2.B

3.C

4.A

5.D

6.B

7.A

8.C

9.A and C

10.A and B

Statistics

1.A

2.A

3.B

4.D

5.C

6.B

7.B

8.A

9.C

10. Normal distribution is a probability distribution that is symmetric about the mean, showing that data near the mean are more frequent in occurrence than data far from the mean.

11. We use deletion methods to eliminate missing data, use regression analysis to systematically eliminate data and use data imputation techniques.
The Data imputation techniques used are:

Complete Case Analysis

Arbitrary Value Imputation

Frequent Category Imputation

12. A/B testing is a basic randomized control experiment. It is a way to compare the two versions of a variable to find out which performs better in a controlled environment.

13.Yes, imputing the mean preserves the mean of the observed data. So if the data are missing completely at random, the estimate of the mean remains unbiased.

14. Linear regression is an attempt to model the relationship between two variables by fitting a linear equation to observed data, where one variable is considered to be an independent variable and the other as a dependent variable.

15.The various branches of statistics are:

data collection, descriptive statistics and inferential statistics