1. A
2. A
3. B
4. D
5. C
6. B
7. B
8. A
9. C
10. Normal Distribution-It is also known as Gaussian Distribution and due to its shape of bell also called bell curved distribution. It is symmetric about the mean showing that data near the mean are more frequent in occurrence than data far from the mean.

    Key Points:

    The normal distribution is the proper term for a probability bell curve.

    In a normal distribution the mean is zero and the standard deviation is 1. It has zero skew.

    Normal distributions are symmetrical, but not all symmetrical distributions are normal.

    Many naturally-occurring phenomena tend to approximate the normal distribution.

    In finance, most pricing distributions are not, however, perfectly normal.

11. Missing information can introduce a significant degree of bias, make processing and analyzing the data more difficult, and reduce efficiency, which are the three main issues it causes. Imputation is viewed as an alternative to listwise elimination of cases with missing values since missing data can complicate data analysis.

    These are some of the data imputation techniques that we will be discussing in-depth:

    *Next or Previous Value

    *K Nearest Neighbors

    *Maximum or Minimum Value

    *Missing Value Prediction

12. A/B testing is the process of testing one strategy (A) against another strategy (B) to see which performs best. In marketing, this approach is used to help refine the content on website pages, paid advertising, email marketing, and other channels to align with the test results. Some of the benefits of A/B Testing is as follows:
    Reveals customer motivations and preferences
    Delivers real data based on customer actions
    Assists in developing better user experiences

13. Bad practice in general. If just estimating means: mean imputation preserves the mean of the observed data Leads to an underestimate of the standard deviation Distorts relationships between variables by "pulling" estimates of the correlation toward zero.

14. Linear regression is one of the easiest and most popular Machine Learning algorithms. It is a statistical method that is used for predictive analysis. Linear regression makes predictions for continuous/real or numeric variables such as **sales, salary, age, product price,** etc.

15. Mainly there are two main branches of Statistics which is divided on the basis of size of data.:
    1. Descriptive
    2. Inferential
    1. Descriptive Statistics- if data can be described without any statistical tools then it is called descriptive statistics . Example marks in class , height of student.
    2. Inferential Statistics-if data is too big then then we use inferential statistics ,

    We can understand this topic by taking an example of election. media came up with the exit polls. Assume an Indian state. Karnataka ,now the media will take a few samples from all the cities in Karnataka .Collecting the data from a few populations in order to form an exit poll is one of the examples of inferential statistics and with this example population and samples are also included.