Basics of Statistics

1) **What is Population?**

   All the members of a group about which you want to draw a conclusion.

2) **What is Sample?**

   The part of the population selected for analysis.

3) **What is Parameter?**

   A numerical measure that describes a characteristic of a population.

4) **What is Statistic?**

   A numerical measure that describes a characteristic of a sample.

5) **What is Attribute?**

   A qualitative characteristic like sex, nationality, religion, grade in examination, blood group, beauty, defectiveness of an article produced by a machine is called by attributes.

6) **What is Variable?**

   A characteristic of an item or an individual that will be analyzed using statistics.

7) **What is Discrete Variables?**

   A variable which is taking only particular values or isolated values is called discrete variable.

8) **What is Continuous Variables?**

   A variable which are taking all possible values in a certain range is called continuous variable.

9) **What is Classification?**

   The entire process of making homogeneous and non-overlapping groups of observations according to similarities is called as classification.

10) **What are classification methods?**

    • **Inclusive Method**

    • **Exclusive Method**

    a. Class-limits

    b. Class boundaries

    c. Class-width

    d. Open end class

11) **What is inclusive Method?**

    In this method, the observation equal to upper limit is included in the same class. Therefore, the method is called as inclusive method.

12) **What is Exclusive Method?**

    In this method, the observation equal to upper limit does not belong to same class. It is included in the next class. Therefore, the method is called as exclusive method.

13) **What is class limits?**

    The two numbers designating the class-interval are called as class limit.

14) **What is Class boundaries?**

    The class boundaries are the numbers up to which the actual magnitude of observation in the class can extend.

15) **What is class-width?**

    It is the actual length of the class interval

16) What is open end class?

A class in which one of the limits is not specified is called an open end class.

17) What is sampling?

Sampling is a process by which members of a population are selected for a sample.

18) What is Probability Sampling?

A sampling process that takes into consideration the chance of Occurrence of each item being selected.

19) What are the types of Sampling?

• **Random Sampling:** Pick randomly from the list

• **Systematic Sampling**: This is where we follow some system of selection.

• **Stratified Sampling**: This is where we divided population in groups.

• **Clustering Sampling**: We break population into many groups, then randomly choose whole group.

20) What is sampling with Replacement?

A sampling method in which each selected item is returned to the frame from which it was selected so that it has the same probability of being selected again.

21) What is sampling without Replacement?

A sampling method in which each selected item is not returned to the frame from which it was selected. Using this technique, an item can be selected no more than one time.