**Population and Universe**

Population or Universe is any complete group of people, companies, hospitals, stores, college students or like that who share some set of characteristics.

Population and universe can also be distinguished as:

If complete set of element is finite it is known as Population.If complete set of element is infinite it is known as Universe.

**Sampling**

It is a process of using small portion of the population or universe to make conclusions about the whole population.

 **Sample**

Population

A subset or part of population capable of representing almost in same ratio the characteristics which are present in the population or universe

**Objectives of sampling**

* To obtain reliable information about the population.
* To arrive at the characteristics of the parent population.
* To test the reliability of difference between the sample estimates and population parameters.
* To test the validity

 **Census**

An investigation of all the individual elements making up a population.

It should be noticed that universe cannot be studied through census method.

**Census Vs Sample Enumeration**

A complete enumeration of all items in the ‘population’ is known as a census inquiry.

A Sample survey is a sub group of population.

**When a Census is appropriate**

If the size of population is small,

Researcher is interested in gathering the information from every individual.

 **When Sample is appropriate**

When the size of population is large.

When time and cost are the main consideration in research.

If population is homogenous.

Sampling reduces the labour requirements and gathers vital information.

Reduces non sampling errors.

**Essentials of a sample**

A sample must have following things which are very essential for drawing valid conclusions:

It should be representative

It should be independent

It should be homogenous

It should be adequat