# **Glossary**

#### 1. Bivariate

It is involving of two random variables, not necessarily independent of one another.

#### 2. Continuous Distribution

It is a distribution of a random variable that may take any value in a finite or infinite set of values.

## 3. Distribution

A set of numbers and their frequency of occurrence collected from measurements over a statistical population.

## 4. Discrete Distribution

It is a distribution of a random variable that takes only finite (or countable infinite) set of values.

## 5. Event

It is a phenomenon, any observable occurrence, or an extraordinary occurrence.

#### 6. Intersection

It is the set of elements common to some collection of sets.

#### 7. Infinitesimal

An indefinitely small quantity, a value approaching zero.

#### 8. Monotonic Function

A monotonic function (or monotone function) is a function which preserves the given order.

#### 9. Mutually Exclusive

A statistical term used to describe a situation where the occurrence of one event is not influenced or caused by another event. In addition, it is impossible for mutually exclusive events to occur at the same time.

#### 10. Probability Mass Function

In probability theory and statistics, a probability mass function (pmf) is a function that gives the probability that a discrete random variable is exactly equal to some value.

#### 11. Probability Density Function

In probability theory, a probability density function (pdf), or density of a continuous random variable is a function that describes the relative likelihood for this random variable to occur at a given point.

#### 12. Sample

A set of elements drawn from and analyzed to estimate the characteristics of a population.

#### 13. Sample Space

Sample space of an experiment or random trial is the set of all possible outcomes.

# 14. Tuple

In mathematics, a tuple is an ordered list of elements and in set theory, an (ordered) n-tuple is a sequence (or ordered list) of n elements, where n is a positive integer.

# 15. Variable

A quantity capable of assuming any of a set of values.