## **Glossary**

#### 1. Arithmetic mean

The value obtained by dividing the sum of a set of quantities by the number of quantities in the set.

## 2. Bivariate

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

#### 3. Cluster

It is a naturally occurring subgroup of a population used in stratified sampling.

#### 4. Coincide

It is to occupy the same relative position or the same area in space.

#### 5. Constant

A quantity assumed to have a fixed value in a specified mathematical context.

## 6. Correlate

To be placed in a mutual, complementary, or reciprocal relationship.

## 7. Correlation coefficient

It is a statistic measuring the degree of correlation between two variables as by dividing their covariance by the square root of the product of their variances. The closer the correlation coefficient is to 1 or -1 the greater the correlation; if it is random, the coefficient is zero.

#### 8. Covariance

It is a measure of the association between two random variables, equal to the expected value of the product of the deviations from the mean of the two variables, and estimated by the sum of products of deviations from the sample mean for associated values of the two variables, divided by the number of sample points.

## 9. Curvilinear

Set of coordinates determined by or determining a system of three orthogonal surfaces.

#### 10. Curve of regression

If the variables in a bivariate distribution are related, we will find that the points in the scatter diagram will cluster around some curve called the curve of regression.

### 11. Geometric mean

It is the nth root, usually the positive nth root, of a product of n factors.

## 12. Regression coefficient

When the regression line is linear (y = ax + b) the regression coefficient is the constant (a) that represents the rate of change of one variable (y) as a function of changes in the other (x).

## 13. Scatter diagram

A graph plots along two axes at right angles to each other the relationship between two variable quantities, such as height and weight.

# 14. Summation

It is the act or process of determining a sum.

# 15. Variable

It is a quantity capable of assuming any of a set of values.