Glossary

1. Logistic Curves

It is a particular form of complex types of growth curve. The initial stage of growth is approximately exponential; then, as saturation begins, the growth slows, and at maturity, growth stops.

2. Population projection

Population projection, in the field of demography, is an estimate of a future population.

3. Saturation

It refers to a version in which all operations are limited to fixed range

4. Retarding Factor

The factor beta minus 'y' is known as the retarding factor which decreases with time't'.

5. Inflexion

A change in the form to indicate a change in its direction or function or operations.

6. Derivative

The derivative is a measure of how a function changes as its input changes. Loosely speaking, a derivative can be thought of as how much one quantity is changing in response to changes in some other quantity; for example, the derivative of the position of a moving object with respect to time is the object's instantaneous velocity.

7. Concave

The word concave means curving in or hollowed inward, as opposed to convex; In addition, the term concave upwards is used for convex functions, and concave downwards for concave functions.

8. Geometric Mean

The geometric mean, in mathematics, is a type of mean or average, which indicates the central tendency or typical value of a set of numbers.

9. Equidistant

A point is said to be **equidistant** from a set of objects if the <u>distances</u> between that point and each object in the set are equal.

10. Trend value

Trend values are determined to present the direction which it takes; to determine the future course of action by estimating whether it is growing or declining.

11. Momentum factor

The factor 'y' is called the momentum factor which increases with time 't'.

12. Weighted Index numbers

When all commodities are not of equal importance, we assign weight to each commodity relative to its importance and index number computed from these weights is called weighted index numbers.

13. Critical point

The point of inflexion is called the Critical point where from the increasing rate of curve starts to decline.

14. Principle of least square method

Least-square is one of the most commonly used method in numerical computation. Essentially it is a technique for solving a set of equations where there are more equations than unknowns, i.e. an over determined set of equations. This set of notes shows the origins of a particular form of the algorithm, batch linear least-squares.

15. Sigmoid Curve

Many natural processes, including those of complex system learning curves, exhibit a progression from small beginnings that accelerates and approaches a climax over time. When a detailed description is lacking, a sigmoid function is often used.