



## **[Glossary]**

### **Autocorrelation**

<b>Subject:</b>	Business Economics
<b>Course:</b>	B. A. (Hons.), 5 <sup>th</sup> Semester, Undergraduate
<b>Paper No. &amp; Title:</b>	Paper – 531 Elective Paper Q1 – Advanced Econometrics
<b>Unit No. &amp; Title:</b>	Unit – 1 Relaxing the Assumptions of The Classical Linear Model
<b>Lecture No. &amp; Title:</b>	Lecture – 5 Autocorrelation

## Glossary

### 1 First Order autoregressive Scheme

It is a relation between  $U_t$  and  $U_{t-1}$  expressed as  $U_t = \rho U_{t-1} + \epsilon_t$  for all t.

### 2 Serial Correlation coefficient

It is the first order autocorrelation coefficient expressed by  $\rho$ .

### 3 DW Test

Durbin Watson test statistic is d which is approximately shown as  $d \approx 2(1 - \rho^*)$  Where  $\rho^*$  is serial correlation coefficient estimated from the sample

### 4 MAR Model

Moving average regression model This is a remedial measure to deal with autocorrelation when autocorrelation coefficient is 1.

### 5 Cochran Orcutt Iterative Procedure

It is a method as a remedial measure to deal with autocorrelation by successive iterations done through the given model. AR equation and GDE serves this purpose in a finite number of steps.

### 6 Von Neumann's Ratio Test (VNR test)

It is a test statistic for detecting autocorrelation based upon computing VNR  $\Delta$  and then applying normality test.

**7 Theil Nagar estimator** It gives estimator of  $\rho$  based upon

the formula  $\hat{\rho} = \frac{n^2 \left(1 - \frac{d}{2}\right) + K^2}{n^2 - K^2}$