**B.Sc. DEGREE EXAMINATION, NOVEMBER 2015.**

**III YEAR — V SEMESTER**

**Major Paper XI— APPLIED STATISTICS**

**Time : 3 hours Max. Marks : 60**

**SECTION A — (10 × 1 = 10 marks)**

**Answer any *TEN* questions.**

1. What are the components of time series?
2. State the additive model of a time series.
3. Write the normal equations for a linear trend equation *y = c+dy*.
4. Define seasonal variation.
5. Write the formula of finding the seasonal variation by simple average method.
6. What do you mean by forecasting?
7. Give any one application of forecasting in business.
8. Write any two advantageous of index numbers.
9. List any two methods of construction of index numbers.
10. Define splicing.
11. Write the abbreviation of NSSO.
12. What is agricultural statistics?

**SECTION B — (5 × 4 = 20 marks)**

**Answer any *FIVE* questions.**

1. Explain the steps of moving average method of measuring trend.
2. Discuss the method of ratio to trend method of measuring seasonal variation.
3. Explain the role of forecasting in business.
4. How do forecast data by using regression with time series data?
5. Explain briefly about cost of living index numbers.
6. Differentiate between fixed and chain base index numbers.
7. Write short notes on Industrial statistics.

**SECTION C — (3 × 10 = 30 marks)**

**Answer any *THREE* questions.**

1. Explain in detail the method of least squares for measuring trend with an example.
2. Discuss the steps for finding seasonal indices by the method of link relatives.
3. Explain exponential smoothing method of forecasting.
4. What are the problems involved in construction of Index Numbers?
5. List down the functions of CSO and NSSO.

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