

GROUP- F ELECTIVE COURSE-II
M.ED. EC216: INFERENCE STATISTICS

Objectives:

1. The student learns the various statistical method used in the analysis of data.
2. He understands the basis concepts of statistics.
3. He develops an ability to select proper statistics with various data.
4. He understands the basic assumptions, uses and misuses of various statistics.
5. He is able to understand statistical interpretations in educational research and to examine the scope of application of research.
6. He develops an ability to evaluate critically the result of analysis of data

Unit-I Regression and Prediction:

- 1.1 Regression and Prediction; Linear regression- the regression line in prediction; the regression equations and the accuracy of prediction

Unit-II Testing hypothesis:

- 2.1 The hypothesis of chance-the null hypothesis
- 2.2 The meaning of statistical inference, the significance of the mean, the median; the significance of measures of variability, of percentage, of the correlation coefficient
- 2.3 The significance of the difference between means and other statistics
- 2.4 Principles of sampling and the use of standard error formulas

Unit-III Non Parametric Tests

- 3.1 Chi-Square Test
- 3.2 Sign Test
- 3.3 Median Test
- 3.4 Mann-Whitney U- Test
- 3.5 Kolmogorov- Smirnov Test
- 3.6 Kruskal-Walis Testing

Unit-IV Analysis of Variance and Factor Analysis

- 4.1 Analysis of variance: Introduction, Concept, Assumptions, Computation One way & Two way, Factorial Design
- 4.2 Analysis of covariance (only theory)
- 4.3 Basic principles of factor analysis