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Welcome to DIPS,

The syllabus of STATISTICS has been specially and skillfully curated by taking into consideration the syllabus of different Universities like SPPU (Pune University), Mumbai University, Christ University etc • IGNOU and also to make sure that you are able to not just learn but also achieve your goals through that learning the syllabus also covers entrances like • NET • Phd entrances • M.phil entrances • UPSC Optional.

After the completion of this subject, you will be able to,

1. Understand and have an in-depth knowledge of the subject
2. Application based skill set and learning that will help you grow in any field that you choose.
3. Relate the subject to many practical and real-life based scenarios and experiences.

UNIT 1 BASIC STATISTICAL CONCEPTS

1. Statistics: Definitions, characteristics and importance in psychological research.
2. Measures of Central tendency, variability, curves and graphs
3. Graphical Representation of data
4. Standardization of scores-Percentiles, percentile ranks, z scores and T scores.
5. Characteristics and application of normal distribution curve, skewness and kurtosis

UNIT 2 CORRELATION AND REGRESSION

1. Concept and meaning of correlation
2. Pearson's Product-Moment Correlation
3. Introduction to Point –Biserial Correlation, Phi-coefficient, Bi-serial, tetra choric correlation, Partial and Multiple Correlation
4. Simple Linear Regression: Concept and uses
5. Application: Using Computer Software SPSS

UNIT 3

INFERENCEAL STATISTICS

1. Inferences: Standard error of mean and other statistics
2. Significance of difference for means, variances and correlation coefficients.
3. Assumptions of Analysis of Variance, and One-way ANOVA- Independent, concept of repeated measures
4. Two-way ANOVA - Independent, concept of repeated measures
5. Analysis of Covariance: Concept.

UNIT 4 NON-PARAMETRIC STATISTICS

1. Difference between Parametric and Non-parametric statistics
2. Chi Square tests
3. Non-parametric tests for correlated data- Rank Difference Correlation, Sign Test, Wilcoxon Signed Rank test
4. Non-parametric tests for uncorrelated data - Mann-Whitney U-test and Kruskal-Wallis Test
5. Advanced SPSS, introduction to R software

Kindly note :

Any pointer that a teacher or any student feels is important and needs to be discussed will be taken during the lectures depending on the need and the necessity.



Books to read :

1. Minium E.W., King B. M., Bear G. (1995).
Statistical Reasoning in Psychology and Education
2. Mangal, S. K. (2006). Statistics in psychology and education. N.D.: Prentice-Hall
3. Singh, A.K. (2006). Tests, Measurements and Research Methods in Behavioural Sciences. Patna: Bharati Bhavan.

All the books and resources will be provided to students

This subject will be taught by Siddhida Kabara.

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