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| **Unit No.**  **CURRICULUM PLAN 2020-21**  **B.A. (H) Geography**  **Semester – III (Practical)**  **(LOCF)**  **Name of the Teacher: Shalini Shikha**  **Paper Name & Paper Code- Statistical Methods in Geography** | **Name of Topic** | **Tutorial/Assignment/ Presentation etc.** | **Allocation of Lectures** | **Assessment Tasks** | **Teaching and Learning**  **Activity** |
| I | **Use of Data in Geography: Geographical Data Matrix, Significance of Statistical Methods in Geography; Sources of Data, Scales of Measurement (Nominal, Ordinal, Interval, Ratio)** | * Significance of Statistical Methods in Geography: * Types and Sources of Data * Descriptive and Inferential Statistics * Geographical Data Matrix * Scales of Measurement | 10th August, 2020-29th August  16 Lectures | Project File  and  Assignment | * Lectures * Demonstration Method * Using Inductive Method * Classroom Exercise |
| II | **Tabulation and Descriptive Statistics: Frequency Distribution Table, Cross Tabulation, Graphical Presentation of Data ( Bar diagram, Histograms, Frequency Curve and Cumulative Frequency Curves), Measurement of Central Tendencies (Mean, Median and Mode), Measurement of Partitions (Deciles, Quartiles and Percentiles), Dispersion (Standard Deviation, Variance and Coefficient of Variation).Centro-graphic Techniques (Geographic Centre, Mean Centre of Population, Median points and Median Centre (based on Minimum Aggregate Distance Traveled), and Distance Deviation from the Mean Centre. Sampling: Purposive, Random, Systematic and Stratified.** | * Frequencies distribution tables ( Simple, Cumulative and Cross-table, with 2 variables) * Graphical Representation-Bar Diagram, Histogram, frequency curve, frequency polygon and Ogive. * Measures of Central Tendency: Arithmetic Mean, Median, Mode. * Measures of Partition: Deciles, Quartiles and Percentiles. * Measures of Dispersion: Standard Deviation, Variance, Coefficient of Variation * Centro Graphic Techniques: Mean Centre, Median Point and Median Center | 31th August, 2020– 3rd October, 2020  22 Lectures | Project File  And  Mock Test | * Demonstration Method (through blackboard teaching) * Using Inductive Method * Classroom Exercise |
| III | **Sampling: Purposive, Random, Systematic and Stratified** | * Data Sampling * Purposive Sampling * Systematic Sampling * Stratified Sampling | 4th October 2020 -15th October 2020  8 lectures | Project File | * Classroom lecture using suitable illustrations * Classroom Exercise |
| IV | **Theoretical Distribution: Probability and Normal Distribution** | * Concept of Probability * Normal Distribution   a. Concept and properties of Normal curve  b. Find the probability/Area under Normal Curve.  c. Fit the data under Normal Curve (only areas method)  d. Plot frequency curves with observed and expected frequencies. | 15th October 2020- 5th November 2020  14 lectures | Project file and class test | * Demonstration Method * Classroom Exercise |
| V | **Correlation: Rank Correlation and Product Moment Correlation, Simple Regression and Mapping of Residuals from Regression** | * Spearman’s Method of Correlation * Product Moment Correlation * Regression | 5th November, 2020 – 20th November, 2020    16 lectures | Project file and Class tests | * Demonstration Method * Using Inductive Method * Classroom Exercise |

E-Resources

Rogerson, P.A., Statistics in Geography, Retrieved from: <https://www.ebooksdownloads.xyz/search/statistical-methods-for-geography>

Souch, C., et.al., Skills in Mathematics and Statistics in Geography and tackling transition, Retrieved from: <https://www.heacademy.ac.uk/system/files/resources/tt_maths_geography.pdf>

Geography and Statistics. (1975). *Area,* *7*(2), 82-82. Retrieved from <http://www.jstor.org/stable/20000965>

Taylor, P., & Goddard, J. (1974). Geography and Statistics: An Introduction. *Journal of the Royal Statistical Society. Series D (The Statistician),* *23*(3/4), 149-155. doi:10.2307/2987578