**Post Graduate Govt. College for Girls, Sector-42, Chandigarh**

**Teaching Plan for Bachelors and Post Graduate (First Semester)**

**Session (2020-2021)**

**Class: BCA I 1st sem.**   **Name of the Teacher: Sarbjit Kaur**

**Subject: Fundamentals of Mathematical Statistics Paper:** BCA-16-102

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| **S. No** | **Dates** | **Topics to be Covered** |
| Week 1 | 03/11/2020 – 07/11/2020 | **Median**: Methods of Calculating Median in case of Individual, Discrete series and continuous series  Variance, Calculation of Standard Deviation for individual Series, Discrete Series and  Continuous Series, |
| Week 2 | 09/11/2020 – 12/11/2020 | **Partition Value**: Quartile, Quintiles, Hexiles, Septiles, Octiles, Deciles, Percentiles |
| Week 3 | 16/11/2020 – 21/11/2020 | **Mode**: Methods of Calculating Mode in case of Individual Series, Discrete series and continuous  series |
| Week 4 | 23/11/2020 – 28/11/2020 | **Range:** Computation of Range, Inter Quartile Range, Computation of Inter Quartile Range, Percentile  Range and Computation of Percentile Range.  Mean Deviation, Computation of Mean Deviation, Standard Deviation, Calculation of Standard  Deviation, |
| Week 5 | 01/12/2020 – 05/12/2020 | Coefficient of Standard Deviation and coefficient of variation, Combined Standard  Deviation, Correcting incorrect Standard Deviation |
| Week 6 | 07/12/2020 – 12/12/2020 | **Correlation Analysis :** Correlation Analysis: Definition, Types of Correlation: Positive, Negative,  Simple, Multiple, Partial, Total, Linear and Non-Linear. Need of Correlation Analysis, |
| Week 7 | 14/12/2020 – 18/12/2020 | Correlation  and Causation, Techniques for Measuring Correlation: Scatter Diagram Method, Graphic Method, |
| Week 8 | 21/12/2020 – 26/12/2020 | Karl Pearson’s Coefficient of Correlation: Correcting incorrect coefficient of correlation, calculating |
| Week 9 | 28/12/2020 – 02/01/2021 | Karl Pearson’s coefficient of correlation in case of grouped series, Probable Error, Coefficient of  Determination, |
| Week 10 | 04/01/2021 – 09/01/2021 | Spearman’s coefficient of Correlation (Rank correlation): Calculation of Correct |
| Week 11 | 11/01/2021 – 16/01/2021 | Coefficient of rank correlation, Difference between Rank Coefficient and Karl Pearson’s coefficient  of coefficient, Coefficient of concurrent deviation. |
| Week 12 | 18/01/2021 – 23/01/2021 | **Regression Analysis (Linear Regression):** Definition, Difference between Correlation and  Regression, |
| Week 13 | 25/01/2021 – 30/01/2021 | Types of Regression Analysis: Simple, Multiple, Partial, Total, Linear and Non-Linear,  Objectives of Regression Analysis, |
| Week 14 | 01/02/2021 – 06/02/2021 | Methods of obtaining regression analysis: Regression Lines,  Regression Equations. |
| Week 15 | 08/02/2021 – 13/02/2021 | Coefficient, Properties of Regression Coefficient, |
| Week 16 | 15/02/2021 – 20/02/2021 | Standard Error of Estimate, Regression Coefficient  in case of Grouped Data, |
| Week 17 | 22/02/2021 – 27/02/2021 | Uses of Regression Analysis and Limitations of Regression Analysis. |