

## 105. BUSINESS STATISTICS-PART 1

1. Statistics: Meaning, Definition, Use of Statistics in Business and Management, Distrust and Limitations of Statistics. Collections of Data, Classification, Frequency Distribution and Tabulation.
2. Measures of Central Tendency: Arithmetic Mean, Geometric Mean, Harmonic Mean, Weighted Mean, Median, Mode and Partition Values. Use of Weighted Arithmetic Mean, Empirical Relationship among AM, GM & HM.
3. Measures of Dispersion: Ranges, Quartile Deviation, Mean Deviation, Standard Deviation, Measures based on Standard deviation and Lorenz Curve. **Skewness:** Karl Pearson's and Bowley's Measures.
4. **Correlation:** Meaning, Types and Correlation and Causation, Scatter Diagrams Pearson's Coefficient of Correlation and Properties (Proof not required), Rank Correlation deviation method, Probable error, Relationship between  $r$  and  $r^2$ . **Regression:** Meaning, Function & Types, Regression lines: Graphic and Algebraic methods, Relationship between Correlation and Regression standard error of estimate.
5. Index Number: Meaning, Use, Limitation and Types of Index Number, Problems of Constructing of Index Number, Methods of Construction of Index Number. Test of Adequacy of Index Number Formula, Base Shifting, Splicing & Deflating.

Note: equal weightage shall be given to theory and practical questions in semester end examination

### **Suggested Readings:**

1. Bhanawat Shurveer S., Business Statistics, R.B.D. Publication, Jaipur – New Delhi
2. Gupta S. P.: Statistical Methods, Sultan Chand & Sons, N. Delhi.
3. Gupta S. C. and Gupta Indira: Business Statistics, Himalaya Publishing House, Mumbai.
4. Hoel & Jessen: Basic Statistics for Business and Economics; John Wiley and Sons, New York.
5. Hooda, R.P.: Statistics for Business and Economics; Macmillan, New Delhi.
6. Lewin and Rubin: Statistics for Management; Prentice-Hall, New Hall.
7. Sancheti, D.C. & Kapoor V. K. : Statistics (Theory, Methods and Applications) Sultan Chand and Sons Delhi:
8. Ya-Lun Chou: Statistical Analysis with Business and Economic Applications, Holt; Rinehart & Winster, New York