Course 3B: Business Statistics

Learning Outcomes:

At the end of the course, the student will able to;

- ➢ Understand the importance of Statistics in real life
- ➢ Formulate complete, concise, and correct mathematical proofs.
- ➢ Frame problems using multiple mathematical and statistical tools, measuring relationships by using standard techniques.
- ➢ Build and assess data-based models.
- ➢ Learn and apply the statistical tools in day life.
- ➢ Create quantitative models to solve real world problems in appropriate contexts.

Syllabus:

Unit 1: Introduction to Statistics: Definition – Importance, Characteristics and Limitations of Statistics -Classification and Tabulation – Frequency Distribution Table -Diagrams and Graphic Presentation of Data (including problems)

Unit 2: Measures of Central Tendency: Types of Averages – Qualities of Good Average - Mean, Median, Mode, and Median based Averages-Geometric Mean – Harmonic Mean(including problems)

Unit 3: Measures of Dispersion: Meaning and Properties of Dispersion – Absolute and Relative Measures - Types of Dispersion-Range - Quartile Deviation (Semi – Inter Quartile Range) -Mean Deviation - Standard Deviation - Coefficient of Variation. (including problems)

Unit 4: Skewness and Kurtosis: Measures of Skewness: Absolute and Relative Measures-Co-efficient of Skewness: Karl Pearson's, Bowley's and Kelly's - Kurtosis: Meso kurtosis, Platy kurtosis and Leptokurtosis (including problems)

Unit 5: Measures of Relation: Meaning and use of Correlation – Types of Correlation - Karlpearson's Correlation Coefficient - Probable Error-Spearman's Rank-Correlation (including problems)

Suggested Readings:

1. Business Statistics, Reddy C.R., Deep Publications.

2. Statistical Methods: Gupta S.P.Sultan Chand & Sons.

3. Statistics-Problems and Solutions: Kapoor V.K, Sultan Chand &Sons.

4. Fundamentals of Statistics: Elhance. D.N

5. Business Statistics, Dr.P.R.Vittal, Margham Publications

6. Business Statistics, LS Agarwal, Kalyani Publications.

7. Statistics: Dr V Murali Krishna, Seven Hills International Publishers.

8. Fundamentals of Statistics: Gupta S.C. Sultan Chand &Sons.

9. Statistics-Theory, Methods and Applications: Sancheti, D.C. & Kapoor V.K.

10. Business Statistics: J.K. Sharma, Vikas Publishers.

11. Business Statistics: Bharat Jhunjhunwala, S Chand Publishers.

12. Business Statistics: S.L.Aggarval, S.L.Bhardwaj and K.Raghuveer, Kalyani Publishers.

Suggested Co-Curricular Activities

♦ Student Seminars,Quiz

♦ Problem Solving Exercises

♦ Observe Live Population Clocks – India and world

♦ Collection of statistical data of village/town, District, State, Nation

♦ Participate in Crop Cutting Experiments at villages

♦ Percentiles in CET exams

♦ Practice Statistical Functions in MS Excel

♦ Draw diagrams and Graphs in MS Excel

♦ Use statistical tools in real life like class/college results, local production etc

♦ Prepare questionnaire and schedule

♦ Application of averages in everyday life

♦ Examinations (Scheduled and surprise tests)

♦ Any similar activities with imaginative thinking beyond the prescribed syllabus