ST.JOSEPH’S COLLEGE FOR WOMEN (AUTONOMOUS) VISAKHAPATNAM

I SEMESTER **B.B.A.**  TIME:5HRS/WEEK

BBA 1302 (4) **QUANTITATIVE METHODS FOR MANAGERS** MAX.MARKS:100

w.e.f. 2021-2022 Admitted Batch (21AI) **SYLLABUS**

**OBJECTIVES:**

* To provide the to understand the concept and importance of statistics.
* To apply statistical representation of data and correlation methods in business decision making.
* To expose students to apply the statistical measures to identify the needs of business and thereby take business decisions.
* To enable the students to acquire the knowledge on set theory, matrices, and its applications.
* To enable the students to present data in the most acceptable manner.

**LEARNING OUTCOMES:**

CO1. Students will have a clear Idea regarding the concept of Statistics in business.

CO2. Students will be able to use this knowledge for data collection purposes.

CO3. Students will be able to apply various statistical techniques and decision making.

CO4. Students will apply the concept of correlation and the different methods used in research when needed.

CO5. Students will be able to represent the data in pictorial form by using applications of set theory.

**MODULE–I: INTRODUCTION TO BUSINESS:** Meaning definition, functions, importance, and limitations of Statistics Collection of data-Primary and Secondary data-Schedule and questionnaire - Frequency distribution -Tabulation, Diagram, and graphic presentation of data-Statistical system in India.(Case Studies)

**MODULE–II: MEASURES OF CENTRAL TENDENCY AND DISPERSION:** Definition, objectivesand characteristics of Measures of Central Tendency, Types of Averages, Arithmetic Mean. Geometric Mean,Harmonic Mean, Median, Mode, Quartiles, Deciles, percentiles, Properties of averages and their application. Meaning, definitions, objectives of Dispersion, Range Quartile Deviation, Mean deviation, Standard Deviation, Co-efficient of variation - Definition and objectives of Skewness-Karl Pearson's and Bowle's measures of skewness.(Case Studies)

**MODULE–III: MEASURES OF CORRELATION:** Meaning, Definition and use of correlation-types of correlation- Karl Pearson's correlation co-efficient- Spearman's Rank correlation- probable error- Meaning utility ofregression analysis- comparison between Correlation and Regression-Regression Equations-Interpretation of Regression Co-efficient.(Case Studies)

**MODULE–IV: SET THEORY:** Set, Subset, Types of Sets-Operations on sets-Venn Diagram- Demogran Laws Applications of Set theory- Laws of indices- Arithmetic Progressions -Geometric Progressions- Harmonic Progressions.(Case Studies)

**MODULE–V:** Matrix Meaning and operations-Matrix Algebra-Types of matrices-Matrix addition-MatrixMultiplication -Matrix Determinants, Minors and Co-factors -Matrix inversion.(Case Studies)

**REFERENCES:**

1. Agarwal – Quantitative Techniques for Managers, Kalyani Publishers,2020
2. Dr C Sanchelti – V K Kapoor Business Statistics, Sultan Chand ,7th Edition
3. Amir, Jayavel- complete Business Statistics, Tata MC Graw Hill Publications, 7th Edition
4. C.R Kotari – Quantitative Techniques, Vikas publishing house ,3rd Edition
5. P.K.Viswaathan, David Stephen, Business statistics , Pearson Publications, 7th Edition
6. Shahid Jamal –Elements of statistics and probability,ILMI book house, 3rd Edition
7. L Sivayya K. V. and Satya Rao, Business Mathematics, Saradhi Publications, Guntur.
8. Gupta S.C. Fundamentals of Business Statistics, Sultan Chand, New Delhi, 7th Edition

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