	Karmaveer Bhaurao Patil University, Satara (A State Public University Est. u/s 3(6) of MPUA 2016) **Faculty of Commerce and Management**	
	Dhananjayrao Gadgil College of Commerce, Satara	
	Board of Studies in Statistics & Mathematics	
	Programme: B.Com(Business Studies)	**Semester** - III
	Type : VSC	**Marks:** 50
	Credits : 2	**From:** A. Y. 2025-26
	Name of the Course: Statistical Techniques Paper –I	

Course Objectives:

1. To explain the scope of Statistics in business, perform classification and tabulation; also represent the data by graphs & explain and apply sampling techniques in real life.
2. To develop the ability to summarize the data by means of measures of central tendency and dispersion.

Course Outcomes:

The students will acquire;

1. Knowledge of Descriptive Statistics.
2. Knowledge of sampling techniques.

Module	Title and Contents	Hrs
Module -1:	**Module -1: Introduction to Statistics** **1.1** Meaning and scope of Statistics, Primary and Secondary data, Qualitative and Quantitative data, Discrete and Continuous variables, Basis of classification & Tabulation, Frequency and Frequency Distribution. **1.2** Graphical representation: Histogram, Ogive curves, Examples. **1.3.** Sampling Techniques -Need and meaning of sampling techniques, Definitions of Population, Parameter, Sample, Statistic, Sampling Frame, Sampling Vs Census method, Advantages of Sampling method over Census method. **1.4** Methods of Sampling: Simple Random Sampling with and without replacement, Stratified random sampling, Estimation of Population mean & Population Proportion using these sampling methods. **1.5.** Real life examples.	15
Module -2:	**Module -2: Measures of Central Tendency and Dispersion** **2.1** Concept of Central Tendency (Averages), Requirements of good statistical averages. **2.2** Arithmetic Mean (AM): Definition, Properties of A.M. (without proof), Combined Mean with numerical examples, concept of Geometric Mean and its applications. Median, Quartiles and Mode, Empirical relation between mean, median and mode. Determination of Median and Mode graphically, Numerical examples. **2.3** Concept of Dispersion, Requirements of good measures of Dispersion, Concept of Absolute and Relative measures of Dispersion.	15

	2.4 Definition of Range, Variance, Standard Deviation and their relative measures, Merits and Demerits, Definition of Coefficient of Variation (CV) and its Applications. **2.5** Numerical Examples.	

Reference Books:-

1. B. M. Agrawal, Essentials of Business Statistics, Ane Books Pvt. Ltd.2010
2. B. M. Agrawal, Business Mathematics and Business Statistics, Ane Books Pvt. Ltd.2009
3. R.S.N. Pillai and Bagavathi, Practical Statistics, S. Chand Publications.1987
4. S.P.Gupta, Statistical Methods, Sultan Chand & Sons 2021
5. C.B.Gupta, Introduction to Statistics, Vikas Publishing House Pvt.Ltd.2004
6. H.C.Saxena and J.N.Kapur, Mathematical Statistics. S. Chand Publications 2010
7. G. V. Kumbhojkar, Business Statistics for B.Com. Part-II, Sem-III, Phadke Prakashan
8. S. S. Desai, Business Statistics, for B.Com. Part-II, Sem-III

Note: Use of nonprogrammable calculator is allowed.

Evaluation Pattern:

Total Marks: 50

Internal Continuous Evaluation: 20 Marks	**End Semester Examination: 30 Marks** **Each question for 10 Marks**
• Home Assignment/Tutorial - 10 marks • Unit test/Seminar – 10 marks	• Question -1 MCQ 5 Out of 6 of 2 marks each • Question -2 Long answer question with example or • Question -2 Long answer question with example • Question -3 Long answer question with example or • Question -3 Long answer question with example