SARDAR PATEL UNIVERSITY
Vallabh Vidyanagar, Gujarat
(Reaccredited with 'A' Grade by NAAC (CGPA 3.25))
Programme: B.COM   Semester: IV
Syllabus with effect from the Academic Year: 2022-2023

B.COM. SEMESTER-IV		
Paper Code **UB04CCOM73**	**Title of the Paper** **BUSINESS MATHEMATICS & STATISTICS – IV**	**Total Credit** **3**
Course Objectives	(1) To enhance analytical ability in students for processing data (2) To familiarize students with applications of Statistical techniques in business decision Making.	

Course Description		
Unit	**Description**	**Weightage**
1.	**Sampling (The ory Only)** (a) Terminology: P opulation, Sample, Parameter,Statistics (b) Characteristics of idealsample (c) Population Survey V/s SampleSurvey (d) Concept of Sampling errors and Non-SamplingErrors (e) Sampling Methods: Procedure, Merits, Demerits :SimpleRandom Sampling, Stratified random Sampling, Systematic Sampling , Cluster Sampling	25%
2.	**Probability** (a) Terminology: Event, Sample space, Mutually exclusive, equally likely, exhaustive, joint, dependent, independentevents (b) Definitions: Mathematical, Statistical andAxiomatic (c) Additional and multiplication rules of probability for two and three eventsrespectively Mathematical Expectation: Meaning and properties. Examples on $E(x)$;$V(x)$	25%
3.	**Probability Distributions** (a) Meaning and importance of probabilitydistributions (b) Binomial, Poisson, Normal distribution: Meaning, Conditions, pdf, properties and uses.	25%
4.	**Statistical Quality Control (S.Q.C)** (a) Meaning , Importance's and Principles ofSQC (b) Charts for variables (Mean and Rangechart) Charts for Attributes (p, np & ccharts)	25%

*Units will have the same Weightage in the evaluation as suggested in the course outline.

Teaching-Learning Methodology	- Lecture Method - Online Lectures - Group Discussion - Practical Problem Solving

Evaluation Pattern		
Sr. No.	**Details of the Evaluation**	**Weightage**
1.	Internal/Written Examination	**15%**
2.	Internal Continuous Assessment in the form of Practical, Viva-Voce, Quizzes, Seminars, Assignments, Attendance	**15%**
3.	University Examination	**70%**

* Students will have to score a minimum of 40 (Forty) Percent to pass the course.

Course Outcomes: Having Completed this course, the students will be able to

- It leads to manage quality in productions and service organizations, through the use of adequate statistical techniques.
- Can Describe and discuss the key terminology, concepts tools and techniques used in business statistical analysis.
- Critically evaluate the underlying assumptions of analysis tools.
- Understand and critically discuss the issues surrounding sampling and significance

Suggested References: (include Reference Material from where a student is expected to study the said content in APA Style) Reference Websites can also be included)

Sr. No	**References**
1.	D. C Sancheti& V K Kapoor: Statistics (Theory, Methods and Applications) Sultan Chand Publication, NewDelhi
2.	S C Gupta: Fundamentals of Statistics, Himalaya PublishingHouse
3.	Prof. H R Vyas and Others, Business Statistics, B S ShahPrakashan
4.	R P Hooda: Statistics for Business and Economics, Mac MillianPublication, NewDelhi

On-Line Resources available that can be used as Reference Material

https://ugcmoocs.inflibnet.ac.in/view_module_ug.php/157