

Anekant Education Society's
Tuljaram Chaturchand College of Arts, Science and Commerce, Baramati
Autonomous

Course Structure for S.Y. B.Com. BUSINESS STATISTICS (2022 Pattern)

Name of the Programme: S.Y. B.Com.

Program Code: UCBS

Class: S.Y. B.Com.

Semester: IV

Paper Code	Title of Paper	No. of Credits
UCBS241(D)	Business Statistics-IV	3

SYLLABUS (CBCS) FOR S. Y. B. Com. BUSINESS STATISTICS

(w. e. from June, 2023)

Name of the Programme	: B.Com
Program Code	: UCBS
Class	: S.Y.B.Com.
Semester	: IV
Course Name	: Business Statistics-IV
Course Code	: UCBS241(D)
No. of lectures	: 48
Credit	: 3 credits

A) Learning Objectives:

1. Understand and masters the concepts, techniques & applications of Statistical Methods and Operations Research with real life situations.
2. To make students to understand the art of applying statistical techniques to solve some real life problems
3. To fit the appropriate time series model that can be used.
4. To gain knowledge of Statistical Computations using statistical software.

B) Learning Outcome:

Students should be able to:

- CO1: Learn techniques & applications of Statistical Methods and Operations Research with real life situations.
- CO2: Learn business situations with real life situations.
- CO3: Learn the concept of time series.
- CO4: Analyze the data using time series technique and interpret the results.
- CO5: Application of Statistical Computations using statistical software.
- CO6: Application of timeseries technique in share market.

TOPICS/CONTENTS:

Unit 1: Time Series

(14L)

Introduction, Definition, Components of Time Series, The Trend, Seasonal variation, Cyclical variation, Irregular variation, Methods of estimating Trends, Moving averages (with periods 3,4,5), Fitting of trend line and second degree curve, Exponential smoothing, Autoregressive model with order one (AR(1)), Example and problems.

Unit 2: Simplex Method

(12L)

Definition of Linear programming problem , Canonical and standard form, duality, relation between primal and dual problem, example and problems on simplex method two iterations only, meaning of unbounded solution, basic feasible solution, alternate solution, degenerate solution

Unit 3: Transportation Problem / optimization (only minimization) (14L)

Introduction, balanced and unbalanced TP, Initial Basic Feasible Solution IBFS using NWCR, MMM, VAM, Optimal solution using MODI method. Example and problems.

Unit 4: Assignment Problem (A.P) (8L)

Introduction, concept minimization and maximization, Hungarian method example and problems.

List of Practicals for Business Statistics for Sem-IV

Practical No.	Name of Practical
1	Time Series using Excel
2	Simplex Method
3	Transpotation Problem and Assignment Problem using TORA

Recommended Books :

1. J.S Chandran - Statistics for Business and Economic
2. S.C. Gupta and V. K. Kapoor - Fundamentals of Applied Statistics
3. Dr. A.B. Rao - Quantitative Techniques for Business
4. V. K. Kapoor - Operation Research

Course Outcomes	Program Outcomes				
	PO1	PO2	PO3	PO4	PO5
CO1	3	2	3	1	-
CO2	3	1	3	2	1
CO3	3	2	2	-	-
CO4	3	2	3	-	-
CO5	3	1	3	-	-
CO6	3	2	2	1	-

Weight: 1 - Partially related 2 - Moderately Related 3 - Strongly related