# SES'S L. S. RAHEJA COLLEGE OF ARTS AND COMMERCE (AUTONOMOUS)



Syllabus of Business Statistics under NEP 2020 vertical (OE) with effect from 2024-25

Programme: Bachelor of Commerce (Management Studies)
Department of Mathematics, Statistics and Computer
HoD/Sr. Person of the Department: Dr. Seema Ukidve
Date of approval by the BoS: 24/04/2024
Approved by the Academic Council: 29/04/2024
Ratified by the Governing Body: 06/05/2024



Programme: Bachelor of Commerce (Management Studies)							Semester: I		
Course: Business Statistics							Code:UGBMSIOE124		
Acad	emic Year: 2	024-2025	B	atch: 202	4-2027				
Teaching Scheme					<b>Evaluation Scheme</b>				
Lectures	Practicals	Tutorials	Cro	edits	Internal Continuou Assessment (ICA) (weightage)		ious A)	Term End Examination (TEE) (weightage)	
30	Nil	Nil	2		20			30	
Internal Component									
Class Test (Duration 30 Mins)				Presentation			Class Participation		
10	10			5		5			
<ul> <li>Learning Objectives:</li> <li>To equip the student with a broad-based knowledge of statistics in business.</li> <li>To understand the concepts of basic financial calculations as well as applications of profit and loss in business.</li> </ul>									
<ul> <li>Course Outcomes:</li> <li>Interpret Financial Mathematical concepts such as Annuities, Sinking funds, Loans EMI etc.</li> </ul>									
• Adapt and use the concept of determinant and Matrices.									
<ul> <li>Business Applications of mathematical techniques studied would be discussed in class. Short case studies would either be discussed in class or given to students as assignments.</li> </ul>									

Module	Module Content		
		Module Wise Pedagogy Used	Module Wise Duration
Ι	<ul> <li>Introduction and Descriptive Statistics:</li> <li>a. Introduction: Meaning, Scope and Limitations of Statistics, Basic Statistical Concepts: Population, Sample, variate, Attributes, Parameter, Statistic. Types of data, Sources of data: Primary and secondary, sample and census survey.</li> <li>b. Descriptive Statistics:</li> <li>I) Measures of Central Tendency: Definition of Average, Types of Averages: Arithmetic Mean, Combined and Weighted arithmetic mean, median, and Mode for raw data, Ungrouped frequency. distribution, grouped frequency distribution. Quartiles, Deciles and Percentiles.</li> <li>II) Measures of Dispersions: Concept of dispersion- Absolute &amp; Relative, Range, Quartile Deviation, Mean Deviation, Standard Deviation and corresponding coefficients. Combined Standard deviation.</li> </ul>	Classroom sessions with adaptive methods & computationa thinking.	n 2+6+7 al
Π	Time series and Index numberTime series: Concept and components of time series. Estimation of trend by moving average method and least square method.Estimation of seasonal component by simple A.M. methodA.M. methodIndex number: Concept of index numbers. Type of index number. Aggregative and price relative method. lampreys, Paasche, Fisher, Dorbish- Bowley and Marshall- Edgeworth index number. Chain base index number. Use of Excel in solving problems	adaptive methods & computations thinking	al 7+8

### **Reference Books:**

- 1. Operations Research, Gupta and Kapoor, S. Chand & Sons Co.
- 2. Statistical Methods, S.G. Gupta, S. Chand & Sons Co.
- 3. *M. P. Chaudhary, Advanced Applied Mathematics*, Piyush Book Publication Pvt. Ltd. New Delhi, India, **2003**.ISBN:81-86548-64-5.
- 4. Introduction to Probability and Statistics for Engineers and Scientists by Sheldon M. Ross
- 5. Operations Research An Introduction By Hamdy A. Taha
- 6. Introduction to Operations Research by Frederick S. Hillier, Gerald J. Lieberman and Bodhibrata

## **QUESTION PAPER PATTERN**

#### **Details of Internal Continuous Assessment (ICA) Internal Marks:** 20

- 1 Internal Test of 10 marks will be conducted.
- 1 Assignment of 10 Marks will be given.

## Term End Examination Question Paper Pattern Total Marks: 30

Q1 Answer any **three** out of the following Four questions (based on Module I) 5\*3=15

Q2 Answer any **three** out of the following Four questions (Based on Module II) 5\*3=15