



बिरसा मुंडा ट्रायबल युनिवर्सिटी Birsa Munda Tribal University

राजपिपला, जि० नर्मदा Rajpipla, Dist. Narmda

Established by Tribal Development Department, Govt. of Gujarat

School of Commerce

B.Com. Programme

Subject Code & Name :- BC05MDSC01: Business Statistics-I

Teaching and Evaluation Scheme:

Teaching Scheme				Examination Scheme			
Credits				Component Weightage			
				CCE		SEE	
L	T	P	Total	TH	PWE	TH	PWE
4	0	0	4	50	0	50	0

Programme Name	B.Com
Semester	5
Course Code	BC05MDSC01
Course Title	Business Statistics-I
Course Content Type (Th./Pr.)	Th.
Course Credit	4
Sessions+ Lab. Per Week	N/A
Total Teaching/Lab. Hours	60 Hours
* 2 Laboratory = 1 Session	

Learning Objectives

1. To enable students to identify and define the fundamental concepts and terminology used in dispersion, correlation, regression, and time series analysis.
2. To explain the differences between various statistical measures (e.g., absolute vs. relative dispersion) and the relationships between variables.
3. To provide students with the skills to perform mathematical calculations for solving business-related statistical problems.
4. To develop the ability to examine complex datasets (such as bivariate frequency tables) and differentiate between various trends and variations in data over time.

Prerequisites (if any)

Learning Outcomes

After completion of the course, learners will be able to:

1. Define core statistical terms such as Range, Quartile Deviation, Mean Deviation, and Standard Deviation.
2. Recall the properties of Regression Coefficients and the mathematical definition of the Coefficient of Correlation.
3. List the four major components of a time series: Secular Trend, Seasonal Variation, Cyclical Variation, and Irregular Variation.
4. Explain the concept and utility of absolute versus relative measures of dispersion.



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Detailed Contents		
UNIT	TOPIC/SUB-TOPIC	TEACHING HOURS
I	MEASURES OF DISPERSION ➤ Meaning ➤ Characteristics ➤ Concept of absolute and relative measures of dispersion ➤ Measures of Dispersion: 1. Range • Meaning • Advantages and disadvantages 2. Quartile Deviation • Meaning • Advantages and disadvantages 3. Mean Deviation • Meaning • Advantages and disadvantages • Coefficient of Mean Deviation 4. Standard Deviation • Meaning • Advantages and disadvantages • Coefficient of variation • Combined Standard Deviation Examples and theory only	15
II	LINEAR CORRELATION ➤ Definition of variables ➤ Meaning and Definition of Correlation ➤ Coefficient of Correlation and its interpretation ➤ Types of Correlation ➤ Properties of Coefficient of Correlation ➤ Probable Error of Coefficient of Correlation ➤ Correlation in bivariate frequency table ➤ Methods of Correlation: • Scatter Diagram • Karl Pearson's method • Spearman's Rank method Examples and theory only	15





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III	LINEAR REGRESSION ➤ Meaning and Definition of Regression ➤ Definition of Regression Coefficient ➤ Properties of Regression Coefficients ➤ Relation between Correlation and Regression Coefficient ➤ Two lines of Regression ➤ Regression equation for a bivariate frequency table Examples only	15
IV	TIME SERIES ANALYSIS ➤ Introduction ➤ Definition ➤ Utility of Time Series Analysis ➤ Components of Time Series (1) Long term Fluctuation • Secular Trend or Trend • Cyclical Variation (2) Short term Fluctuation • Seasonal Variation • Irregular Variation ➤ Analysis of time series • Measurement of trend • Graphic or free hand curve fitting method • Method of moving averages, • Method of simple averages • Measurement of seasonal variations Examples only	15
Text Book(s)		
1.		
Reference Books		
1. Statistics By D.S. Sancheti and V.K. Kapoor 2. Fundamentals of mathematical statistics By V.K. Kapoor and S.C. Gupta 3. Basic Statistics By B.L. Agarwal 4. Fundamentals of Statistics By S.C. Srivastva and Sangya Srivastava 5. Fundamentals of Statistics, S.C.Gupta, Himalaya Publishing house.		
Web Resources		
1.		
Required Software(s) (if any)		
Practical(s) (if any)		



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L:: Lecture, **T::** Tutorial , **P::**Practical

CCE::Continuous and Comprehensive Evaluation

(CCE Theory includes Mid Semester Examination, Assignment, MCQ quizzes, Seminar, Reflective notes, class participation, case analysis and presentation, slip tests (announced/ surprised), attendance etc. or any combination of these)

PWE::Practical Work Examination

(PWE includes Laboratory practical work, project work, viva simulation exercise work etc.)

SEE::Semester End Evaluation

