



बिरसा मुंडा द्रायबल युनिवर्सिटी Birsā Mūṇḁā Drāyaball Yūnīvārsīṭī

राजपिपला, जि० नर्मदा Rajpipla, Dist. Narmda

Established by Tribal Development Department, Govt. of Gujarat

School of Commerce B.Com. Programme

Subject Code & Name :- BC06MDSC01: Business Statistics-II

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	6
Course Code	BC06MDSC01
Course Title	Business Statistics-II
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 identify the definitions of probability terms, random variables, and index numbers.
2. To describe the properties and uses of Binomial, Poisson, and Normal distributions.
3. To compute areas under the normal probability curve using standard normal tables.
4. To compare different methods of constructing index numbers, such as Laspeyer's, Paasche's, and Fisher's indices.

Prerequisites (if any)

Learning Outcomes

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

1. To solve practical problems using the Addition and Multiplication theorems of probability for independent events.
2. To explain the mathematical expectation of discrete random variables and their variance properties.
3. Describe the importance and properties of the Normal Distribution curve in statistical analysis.
4. To contrast the Cost of Living Index with Chain Base Index numbers to evaluate economic changes.



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Detailed Contents		
UNIT	TOPIC/SUB-TOPIC	TEACHING HOURS
I	PROBABILITY ➤ Concept of Probability ➤ Definition of Different Terms ➤ Mathematical & Statistical Definition of Probability ➤ Permutations & Combinations Concept ➤ Addition Theorem, Condition Law, Multiplication Theorem For Two Events ➤ Independent Events Examples and theory only	15
II	MATHEMATICAL EXPECTATION ➤ Random variable ➤ Concept of Discrete Random Variable & Continuous Random variable ➤ Mathematical Expectation of Discrete Random Variable and its Properties ➤ Variance of Random Variable and its Properties BINOMIAL DISTRIBUTION: ➤ Meaning ➤ Properties and use of Binomial Distribution ➤ Application of Binomial Distribution Examples and theory only	15
III	POISSON DISTRIBUTION ➤ Definitions ➤ Use of Poisson distribution ➤ Properties of Poisson distribution NORMAL DISTRIBUTION ➤ Introduction ➤ Normal distribution ➤ How to compute areas of under normal probability curve ➤ Properties of normal distribution. ➤ Importance of normal distribution. Example and theory only	15





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IV	INDEX NUMBERS ➤ Definitions and Meaning ➤ characteristics of Index numbers ➤ Uses of Index numbers ➤ Limitations of Index numbers ➤ Types of Index numbers ➤ Problems in the construction of Index number ➤ Methods of constructing Index numbers: ➤ Un-weighted Aggregate method 1. Simple Aggregative Method 2. Simple Average of Price Relative Method ➤ Weighted aggregate method 1. Weighted aggregative indices (Laspeyer's Index, Pasche's Index, Marshall – Edgeworth Index, Dorbish and Bowleys Index, Fisher's Index) 2. Weighted average of price relative indices ➤ Quantity or volume Index Number ➤ Chain Base Index Number ➤ Cost of living index number 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)		

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

CCE::Continuous and Comprehensive Evaluation





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(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

