



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: - BC01IDCC01: Mathematics for Commerce-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	1
Course Code	BC01IDCC01
Course Title	Mathematics for Commerce-I
Course Content Type (Th./Pr.)	Th.
Course Credit	4
Sessions+ Lab. Per Week	4
Total Teaching/Lab. Hours	60 Hours
* 2 Laboratory = 1 Session	

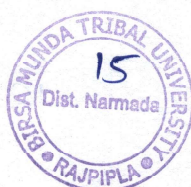
Learning Objectives

1. To study the Function and Limit Concepts
2. To Know the different Set Theories
3. To Understand the different types of Metrics
4. To Discuss the Interpolation and Extrapolation Methods

Learning Outcomes

On the Completion of this course, students will able to:

1. Understand and Apply Function and Limit Concepts
2. Describe and Compare different Set Theories
3. Ability to Manipulate and Solve Metrics
4. Apply Interpolation and Extrapolation Methods





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Detailed Contents		
UNIT	TOPIC/SUB-TOPIC	TEACHING HOURS
I	Function and Limit : Concept of a single variable (linear, quadratic and exponential function only) Domain, co-domain, and range of a function. Concept of limit of a function, Rules of limit, Simple examples where is in a polynomial or rational function.	15
II	Set Theory and Determinants : Sets, Subsets, Equality of two sets, null set, universal set, power set, complements of a set, union and intersection of sets, difference of two sets. Venn Diagram (Concept only), Laws of algebra of sets, De Morgan laws and Cartesian Product of two sets. Determinants: Meaning, Determinants and their basic properties of determinant (without Proof, without examples), Cramer's Method (For two variables)	15
III	Matrix: Type of matrices: Square, Null, Identity, Transpose of Matrices, Symmetric, Skew symmetric, Singular, Non Singular, Inverse, Adjoin of matrix. Matrices - scalar multiplication, Addition, Subtraction, Multiplication. Solution of a system of two linear equations using matrix.	15
IV	Interpolation and Extrapolation: Meaning of Interpolation and Extrapolation, Assumptions, Importance of Interpolation and Extrapolation, Operators Δ and E (without proof), Methods of Interpolation and Extrapolation:1. Newton's Method 2. Binomial expansion method3. Lagrange's method and examples on these methods (Simple Examples)	15
Reference Books		
<ol style="list-style-type: none">1. Kapoor, V. K.: Business Mathematics, Sultan Chand and Sons, New Delhi.2. Soni, R. S.: Business Mathematics, Pitamber Publishing House.3. Trivedi and Trivedi: Business Mathematics, Pearson India Limited. New Delhi.4. Business Mathematics-1, Garg Publication, Ahmedabad.5. Allen R.G.D.: Basic Mathematics, Macmillan, New Delhi.6. Vohra N.D.: Quantitative Techniques in Management, Tata McGraw Hill, New Delhi.		





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Web Resources

1. <https://youtu.be/1wsF9GpGd00>
2. https://youtu.be/OAh573i_qn8
3. <https://youtu.be/GGQngIp0YGI>

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

