



BACHELOR OF BUSINESS ADMINISTRATION

**BBA - (GENERAL)
SEMESTER- I**

Course Code	UM01DBBA72	Title of the Course	BUSINESS MATHEMATICS-I
Total Credits of the Course	03	Hours per Week	03
Course Objectives:	1 To develop and enhance analytical ability in students for processing and interpreting statistical data. 2 To familiarize students with applications of Mathematical and Statistical methods in business management decision making problems		

Course Content		
Unit	Description	Weightage* (%)
1.	Function , Limit , Continuity <ul style="list-style-type: none">• Concept of a function of single variable (linear, quadratic and exponential function only) Domain, co-domain and range of a function, Concept of real function, Application of function to cost, demand, revenue, profit function, break-even point, concept of limit of a function, Rules of limit, Simple examples where $f(x)$ is in a polynomial or rational function of two polynomials. Continuity of $f(x)$, where $f(x)$ is a polynomial of x, rational function of 'two polynomials of x.	25%
2.	Derivatives and Applications of Derivatives <ul style="list-style-type: none">• Derivatives of explicit, composite and implicit functions, Derivatives of• exponential and arithmetic functions,• Rules of differentiation(without proof),• Higher order derivatives• maxima and minima of a function in economic• Theory (demand, supply, consumption, revenue and cost function)	25%
3.	Set Theory & Determinants <ul style="list-style-type: none">• Set Theory: Sets, Subsets, equality of two sets, null set, universal set, power set,• Complement 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.	25%



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Syllabus with effect from the Academic Year 2021-2022

	<ul style="list-style-type: none">• Determinants : Meaning, Determinants and their basic properties of• determinant(Without Proof, without examples), Cramer's Method(For two• equations)	
4.	Matrix <ul style="list-style-type: none">• Types of matrices: Square, null, identity, transpose of Matrices, Symmetric, skew• symmetric, Singular, non-singular, inverse, Ad joint of a matrix.• Matrices- scalar multiplication, Addition, Subtraction, Multiplication.• Solution of a system of two and three linear equations using matrix.	25%

Teaching-Learning Methodology	Lectures, Assignments, Quiz and Seminars	
Evaluation Pattern		
Sr. No.	Details of the Evaluation	Weightage
1.	Internal Written / Practical Examination (As per CBCS R.6.8.3)	15%
2.	Internal Continuous Assessment in the form of Practical, Viva-voce, Quizzes, Seminars, Assignments, Attendance (As per CBCS R.6.8.3)	15%
3.	University Examination	70%

Course Outcomes: Having completed this course, the learner will be able to	
1.	To analyze and interpret mathematical and statistical methods and develop and enhance analytical ability for processing and interpreting statistical data.
2.	Understand applications of Mathematical and Statistical methods in business management decision making problems



Suggested References	
Sr. No.	References
1.	(1) Sancheti & Kapoor: Statistics: Theory, Methods and Applications, Sultan Chand & sons, New Delhi (2) Kapoor, V.K.: Business Mathematics, Sultan Chand and sons, New Delhi. (3) Soni, R.S.: Business Mathematics, Pitamber publishing House. (4) Vohra N.D.: Quantitative Techniques in Management, Tata McGraw Hill, New Delhi.

Online resources: <https://youtu.be/Dstf6uzWcY4?list=PLFCINVOTycUW5YpwtatnV2x>
<https://youtu.be/DY3AEUdznwc?list=PLFCINVOTycUW5YpwtatnV2x>
https://youtu.be/VM3_86Algkw?list=PLFCINVOTycUW5YpwtatnV2x-NJCZVnulG
<https://youtu.be/owsh077YeVA?list=PLFCINVOTycUW5YpwtatnV2x-NJCZVnulG>
<https://youtu.be/vTM-EE9EyV8?list=PLFCINVOTycUW5YpwtatnV2x-NJCZVnulG>
<https://youtu.be/jpRMMBFzPjY?list=PLFCINVOTycUW5YpwtatnV2x-NJCZVnulG>
<https://youtu.be/-AgOoFeccRU?list=PLFCINVOTycUW5YpwtatnV2x-NJCZVnulG>
<https://www.youtube.com/watch?v=duZ4MVh5VX0&list=PLFCINVOTycUXOnNYGc>
<https://youtu.be/duZ4MVh5VX0?list=PLFCINVOTycUXOnNYGc70DheoGDqnU8ufA>
<https://youtu.be/0Fddg6iyZFM?list=PLFCINVOTycUXOnNYGc70DheoGDqnU8ufA>
<https://youtu.be/0Fddg6iyZFM?list=PLFCINVOTycUXOnNYGc70DheoGDqnU8ufA>
<https://youtu.be/0h8Cf3TAvIc?list=PLFCINVOTycUXOnNYGc70DheoGDqnU8ufA>
<https://youtu.be/0h8Cf3TAvIc?list=PLFCINVOTycUXOnNYGc70DheoGDqnU8ufA>
https://youtu.be/t4zGxq_Uv5E?list=PLFCINVOTycUXOnNYGc70DheoGDqnU8ufA
