

LESSON PLAN
JULY TO DECEMBER 2023

Name of the Assistant/Associate Professor: Mrs. Ravinder	Learning Outcomes
Class and Semester: B.A. IIIrd year (5th Semester)	
Subject: Mathematics	
Paper: REAL ANALYSIS	
JULY AND AUGUST 2023 Riemaan Integral and its properties , continuity of functions and riemaan integrability Revision and test of chapter	About Riemaan Integral and its properties
SEPTEMBER 2023 Topics -Improper integrals and their convergence, Comparison tests, Abel's and Dirichlet's tests, Frullani's integral, Integral as a function of a parameter	Improper integrals Integral as a function of parameter
OCTOBER 2023: Topics: Definition and examples of metric spaces, neighborhoods, limit points, interior points, open and closed sets, closure and interior, boundary points, subspace of a metric space, equivalent metrics, Cauchy sequences, completeness, Cantor's intersection theorem, Baire's category theorem, contraction Principle.	metric spaces, neighborhoods, limit points, interior points, open and closed sets.
NOVEMBER 2023 Topics : Continuous <i>functions</i> , uniform continuity, compactness for metric spaces, sequential compactness, Bolzano-Weierstrass property, total boundedness, finite intersection property, continuity in relation with compactness, connectedness, components, continuity in relation with connectedness.	Continuous <i>functions</i> , uniform continuity
DECEMBER 2023 Revision and Test	

Ravinder
12/10/23

LESSON PLAN
July to December 2023

Name of the Assistant/Associate Professor: Mrs. Ravinder	Learning Outcomes
Class and Semester: B.A. 1st year (1st Semester)	
Subject: Mathematics	
Paper : Calculus.	
JULY AND AUGUST AND 2023 Topics- Limit of functions, Types of continuity and differentiability of Functions. Successive differentiation of functions in implicit, explicit and parametric form. Leibnitz theorem. Some general theorem on differentiable functions and expansions. Taylor's theorem and infinite series.	About limit of functions, Types of continuity and differentiability.
SEPTEMBER 2023 Topics –Asymptotes parallel to coordinate axis and oblique asymptotes in Cartesian and polar form Singular points Curvature(radius of curvature for Cartesian curve, parametric curves, polar curves, pedal curves)	
OCTOBER 2023 Topics- Reduction Formulae, Rectification, Length of curves in Cartesian, parametric and polar curves Assignment and Test 1	About reduction Formulae, Rectification
NOVEMBER- 2023 Topics- Quadrature(area) Sectorial area. Area bounded by closed curves. Revision of syllabus.	
DECEMBER 2023 Revision and Tests	

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LESSON PLAN
JULY TO DECEMBER 2023

Mrs. Ravinder
Class : B.com I
Assistant Professor of Mathematics
Subject : Mathematics

Paper: Business Mathematics

<p>JULY AND AUGUST 2023</p>	<p>Topics:- Logarithms, Anti-logarithms and related sums. Compound Interest and Annuities: different types of interest rates, concept of present value and amount of a sum; types of annuities; present value and amount of an annuity (including the case of continuous compounding); valuation of simple loans and debentures; problems relating to sinking funds.</p>	<p>About Logarithms, Anti-logarithm Compound Interest and Annuities:</p>
<p>SEPTEMBER 2023</p>	<p>Topics:- Sequences and Series: Arithmetic & Geometric Progressions. First Assignment on the topic of Arithmetic & Geometric Progressions.</p>	<p>About Arithmetic & Geometric Progressions.</p>
<p>OCTOBER 2023</p>	<p>Topics: SETS and their properties, Roster and Set builder methods to represent a set, union of sets, Intersection of sets, Practical problems with the help of sets Test of sets</p>	<p>About sets and their practical implications</p>
<p>NOVEMBER 2023</p>	<p>Topics- Matrices and Determinants: concept of matrix, types, and algebra of matrices; properties of determinants; calculation of values of determinants up to third order, adjoint of a matrix, elementary row or column operations; Finding inverse of a matrix through adjoint and elementary row or column operations; solution of a system of linear equations having unique solution and involving not more than three variables. Second Assignment on the topic of solution of a system of linear equations</p>	<p>About Matrix and Determinants</p>
<p>DECEMBER 2023</p>	<p>Revision and tests</p>	

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LESSON PLAN
MAY TO DECEMBER 2023

Name: Ravinder
 Email: r8.com1
 Designation: Assistant Professor of Mathematics
 Subject: Mathematics

Paper: Business Mathematics

MAY AND AUGUST 2023

Topic: Logarithms, Simple and Compound Interest.
 Compound Interest: Annuities; different types of interest rates, concept of present value and amount of a series of annuities; present value and amount of an annuity (including one of continuous compounding); valuation of lease loans and debentures; problems relating to sinking funds.

About Logarithms, Simple and Compound Interest and Annuities.

SEPTEMBER 2023

Topic: Sequences and Series: Arithmetic & Geometric Progressions.
 Assignment on the above topics: Arithmetic & Geometric Progressions.

About Arithmetic and Geometric Progressions.

OCTOBER 2023

Topic: SETS and their operations, Roster and Set Builder methods to represent a set, union of two sets, intersection of sets, Problems on problems with the help of sets.

About sets and their practical implications.

NOVEMBER 2023

Topic: Matrices and Determinants: calculation of determinants of square, row or column operations, solving a system of linear equations not more than three variables. Assignment on the above topics.
 Topic: Solution of a system of linear equations

About Matrices and Determinants.

LESSON PLAN (July to December 2023)

Mrs. Ravinder

Assistant Professor of Maths

Class : B.A 2nd^l year (3rd semester)

Subject: Mathematics

Paper : Advanced Calculus

	Learning Outcomes
JULY AND AUGUST 2023 Topics- Continuity, Sequential Continuity, Properties of continuous Functions. Uniform Continuity, Chain rule of Differentiability. Rolle's Theorem, Lagranges mean Value Theorem, Taloyr's theorem.	Students will know about Continuity, Sequential Continuity. Rolle's Theorem, Lagranges mean Value Theorem, Taloyr's theorem.
SEPTEMBER 2023 Topics Limit and Continuity of real valued functions of two variables. Partial Differentiation, Total differentials; Composite functions and implicit functions. Change of variables , Homogeneous functions. Taylos's functions of two variables. Assignment 1 and Test	Students will know about Limit and Continuity of real valued functions of two variables. Partial Differentiation
OCTOBER 2023 Topics- Differentiability of real valued functions of two variables, Schwartz and Young's theorem. Implicit functuin theorem. Maxima, minima and saddle points of two variables. Lagrange, s method of multipliers.	Students will know about Differentiability of real valued functions of two variables, Schwartz and Young's theorem. Implicit functuin theorem.
NOVEMBER 2023 Topics- Curves: Tangents, Principal Normals, Binormals, Serret-Frenet formula Surfaces : Tangent Planes, one parameter family of surfaces and envelopes. Assignment 2 and test	Students will know about Curves: Tangents, Principal Normals, Binormals, Serret-Frenet formula Surfaces : Tangent Planes, one parameter family of surfaces and envelopes.
DECEMBER 2023 Revision and Test	

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