

**Tentative Lesson Plan for Session 2023-24**  
**Rajiv Gandhi Govt College Saha, Ambala**  
**Class- B.Sc/B.A 1st ,3rd sem**

Month	Calculus	Statics	Partial differential equations	Advance Calculus
July 2023	Limit ,continuity and Derivability .Indeterminate form.Successive Differentiation and their theorems .Practicals of Part A	Composition and resolution of forces. Parallel forces. Moments and Couple	Formation of partial differential equation, first order linear partial differential equation, first order non linear partial differential equation	Continuous functions, The Derivatives and Mean Value Theorems , Indeterminate form
August 2023	Asymptotes, Curvature Singular points, Practical of Part A, Part B	Analytical conditions of equilibrium of coplanar forces. Friction. Centre of Gravity.	Linear partial differential equation of second and higher order partial differential equation with variable Coefficient reducible to equation with constant coefficients	Limit and Continuity of Functions of Two Variables, Partial Differentiation
September 2023	Curve Tracing .Reduction Formulae, Practical of Part B	Virtual work. Forces in three dimensions. Poinso's central axis.	Classification and canonical form of second order linear partial differential equation, Monge's method for partial differential equation of second order	Differentiability of Functions of Two Variables, Maximum and Minimum of a Functions of Two Variables
October 2023	Rectification, Quadrature. volume and surfaces of solid of revolution. Revision of practicals	Wrenches. Null lines and planes. Stable and unstable equilibrium.	Characteristics of second order partial differential equation and Cauchy's problem, method of separation of variables : wave heat and Laplace equation	Curve in Space ,Circle of Curvature and Spherical Curvature Involutes and Evolutes, Concept of a Surface and Envelopes
November 2023	Revision, class Assignment test,	Revision, class Assignment test,	Revision, Assignment ,Class Test KUK Exam	Revision, Assignment ,Class Test KUK Exam

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DEPARTMENT OF MATHEMATICS

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Principal  
**PRINCIPAL**  
Rajiv Gandhi Govt. College  
Saha (Ambala)  
**RGGC SAHA, AMBALA**

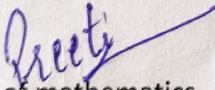


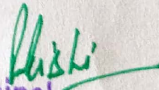
Rajiv Gandhi Government College Saha, Ambala

Department of Mathematics

Class B.Sc/B.A 5th sem

Month/Year	Real Analysis	Group and Rings	Numerical Analysis
Aug. 2023	Riemann integral	Group and Subgroup, Cosets	Finite difference, operator interpolation with equal interval, interpolation with unequal interval
Sep. 2023	Improper integrals and their convergence Integral as a function of Parameter	Homomorphism and automorphisms permutation groups	Central Difference interpolation formula, probability distribution
Oct. 2023	Metric space open and closed set-in metric space, Completeness in metric space	Ring and Fields, Ideals and quotient Rings, Homomorphisms of Rings	Numerical differentiation Eigen value problems, Numerical integration, Numerical solutions of ordinary Differential Equation
Nov. 2023	Continuity and Uniform Continuity in metric space, Compactness in metric space, Connectedness in metric space	Euclidean Rings, polynomial Rings Revision, Assignment, Class Test, KUK Exam	Revision, Assignment, Class Test, KUK Exam

  
Department of mathematics.

  
Principal  
Rajiv Gandhi Govt. College  
RGGC Saha, Ambala  
Saha (Ambala)



## Lesson plan (2023-24)

Name of teacher – Pooja Girotra  
Class –B.A (1<sup>ST</sup> SEM)  
PAPER- MDC (Basic Mathematics)

MONTH	UNIT NAME	ARTICLES COVERED
JULY & AUGUST	Set theory	Sets and their representations, Empty set, Finite and infinite sets, Subsets, Equal sets, Power sets, Universal set, Union and intersection of sets, Difference of two sets, Complement of a set, Venn diagram, De-Morgan's laws and their applications. An introduction to matrices and their types, Operations on matrices, Symmetric and skew-symmetric matrices, Minors, Co-factors. Determinant of a square matrix, Adjoint and inverse of a square matrix, Solutions of a system of linear equations up to order .
SEPTEMBER	Complex Numbers and Quadratic equations	Complex numbers, Operations on complex numbers, Modulus and argument of a complex number. Linear inequalities, Algebraic solutions of linear inequalities in two variables and their graphical representation. Quadratic equations, Solution of quadratic equations.
OCTOBER	Series	Arithmetic progression, Geometric progression, Harmonic progression, Arithmetic mean (A.M.), Geometric mean (G.M.), Harmonic mean (H.M.), Relation between A.M., G.M. and H.M.
NOVEMBER	Straight lines	Straight lines: Slope of a line and angle between two lines, Different forms of equation of a line: Parallel to co-ordinate axes, Point-slope form, Slope-intercept form, Two-point form, General form; Distance of a point from a straight line. Standard form of a circle and its properties.

*Pooja*

Principal *Prishu*  
Rajiv Gandhi Govt. College  
Saha (Ambala)