

MATHEMATICS DEPARTMENT

SESSION-(2021-22)

WEEKLY TEACHING PLAN

Class-B.Sc/B.A(sem 4)

Prof.Dalvinder Singh, Prof.Kirti Bhagirath & Prof. Jagjit Singh

*Two weeks left for MST tentative and one week for revision/queries for MST

Weeks	PAPER-1 Analysis 2	PAPER-2 Numerical methods	PAPER-3 Number Theory
1	Function of Bounded Variation and Rectifiable Curves	Measures of errors: Relative, absolute and percentage errors	Divisibility and Division Algorithm
2	Function of Bounded Variation and Rectifiable Curves	Types of errors	G.C.D. and Euclidean Algorithm
3	Total Variation	Solution of equations- regula-falsi and secant method	The Diophantine Equations Prime number and their distribution, Fundamental theorem of Arithmetic
4	Jordan Theorem and properties	Solution of equations- regula falsi and secant method	Congruences
5	Rectifiable curve and arc length	Newton raphson and iterative method	Linear congruences and Chinese Remainder theorem
6	Additive Property, Equivalence of Paths and Change of Parameter	Newton raphson and iterative method	Fermat's Theorem and Wilson's Theorem
7	The Riemann-Stieltjes Integrals: Definition, elementary properties	System of linear equations	Euler's Phi Function and Euler's Theorem
8	Reduction to Riemann integral, Riemann Condition, step function,	Pivot elements, pivoting strategies, partial and complete pivoting	Arithmetic Function, Application of Cryptography
9	Comparison Theorems, Integrators of bounded variation	Gauss Jordan and Gauss Seidel Method	Primitive Roots and Indices
10	First and second Mean value Theorems for RSI	Interpolation: Finite differences, Divided and central Difference	Quadratic residues and Quadratic Reciprocity Law
11	Fundamental theorem of integral calculus, mean value theorems for Riemann Integrals	Lagrange's formula and Newton's formula, Stirling	Legendre Symbol, Euler's Criterion, Gauss Lemma, Jacobi Symbol
12	Revision	Bessel's and Everett's formulae	Arithmetic Functions, Mobius Inverse Formula

Jatinder Singh
Principal
Govt. College
Ropar

Dalvinder Singh
Dr. Dalvinder Singh
Head of Department

MATHEMATICS DEPARTMENT

SESSION-(2021-22)

WEEKLY TEACHING PLAN

Class-B.Sc/B.A(sem 3)

Prof. Dalvindersingh, Prof. Jagjit Singh, Prof. Kirati Bhagisathy

Weeks	PAPER-1 Linear Programming	PAPER-2 ANALYSIS-I	PAPER-3 Mechanics
1	Linear Programming: Mathematical Formulation and Properties of solution	Sequences	Definitions, Forces Acting at a point
2	Graphic Method	Sequences	Any number of Forces Acting at a Point, Parallel forces
3	Simplex method	Sequences	Moments and couples
4	Simplex method	Infinite series	Equilibrium of three coplanar Forces acting on a rigid body
5	Duality in linear Programming	Infinite series	coplanar forces, Friction
6	Duality in linear Programming	Sequences and series of functions	Center of gravity
7	Transportation Problems	Power series	Basic concept, motion with constant Acceleration
8	Transportation Problems	Riemann Integration	Newtons Law of Motion,
9	Transportation Problems	Riemann Integration	Motion under variable Acceleration
10	Assignments Problems	Riemann Integration	Simple harmonic Motion
11	Assignments Problems	Improper Integrals	Projectiles
12	Revision	Improper Integrals	Projectiles
13	MST	MST	MST
14	Revision	Revision	Revision

Dalvindersingh

Dr. Dalvinder Singh
Head of Department

Jatinder Singh
Principal
Govt. College
Ropar