

MATHEMATICS DEPARTMENT

SESSION-(2021-22)

WEEKLY TEACHING PLAN

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

Class-B.Sc/B.A(sem 5)

Weeks	PAPER-1 Algebra1	PAPER-2 DISCRETE MATHS 1	PAPER-3 MATHEMATICAL METHODS
1	Groups, subgroups and cyclic groups	Set theory	Fourier series
2	Groups, subgroups and cyclic groups	Relations	Fourier series
3	Groups, subgroups and cyclic groups	Relations, Functions	Beta and gamma functions
4	Normal and quotient groups	Logic and quantifiers	Beta and gamma functions
5	Normal and quotient groups	Permutations and combinations	Beta and gamma functions
6	Homomorphisms	Permutations and combinations	Laplace transformations
7	Rings	Pigeonhole principle	Laplace transformations
8	Subrings, Ideals, Quotient Rings	Mathematical induction	Inverse laplace transformation
9	Subrings, Ideals, Quotient Rings	Inclusion-exclusion principle	Inverse laplace transformation
10	Homomorphisms of rings	lattices	Inverse laplace transformation
11	Homomorphisms of rings	Graph theory, trees	Revision
12	Fields	Finite state machines and languages	Convolution theorem
13	PID, Euclidean rings	Probability	Convolution theorem
14	Revision	Revision	Revision

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MATHEMATICS DEPARTMENT

SESSION (2021-22)

WEEKLY TEACHING PLAN

Prof. Dalvindersingh, Prof. Kirtl and Prof. Jagjit Singh

Class-B.Sc/B.A(sem 6)

Weeks	PAPER-1 Algebra 2	PAPER-2 DISCRETE METHODS 2	PAPER-3 MATHEMATICAL METHODS 2
1	Vector spaces	Analysis of algorithms	Dirichlet's conditions, Fourier transformation
2	Vector spaces	Discrete numeric functions	Linear Property, Modulation Theorem, Change of scale Property
3	Basis and dimension	Recurring relations	Shifting theorem, Convolution theorem
4	Quotient spaces	Homogeneous solutions	Finite Fourier sine transform, cosine transform
5	Quotient spaces	Group Theory	Finite Fourier cosine transform
6	Linear transformations	Ring Theory	Application of Laplace transform
7	Linear transformations & matrices	Boolean Algebra	Application of Laplace transform
8	Linear transformations & matrices	Boolean Algebra	Application of Laplace transform
9	Characteristic and minimal polynomial	Duality	Simultaneous ordinary differential equation
10	Characteristic and minimal polynomial	Boolean functions and expressions	Second order partial differential equation
11	Eigen value	Digital Networks	Second order partial differential equation
12	Eigen vector	Digital Networks	Second order partial differential equation
12	MST	MST	MST
13	Revision	Revision	Revision
14	Revision	Revision	Revision

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