

Dr. B.R.A. Govt. College, Jagdishpura, Kaithal

Name of Assistant professor: Ranesh Kumar

Class: M.Sc.(F) Subject: G.M.E.T.

Week	Topic
1	Measure, Some properties of measure, outer measure, additivity of measure.
2	Definition of Lebesgue, Completion of a measure, The L ¹ of an innerly divided family of measures.
3	Simple function. Continuation of R ⁿ function, limits of measurable function, localization of set.
4	Simple function. Measure space, a.e. f is bounded, etc in measure, almost everywhere, in measure, almost everywhere, Egoroff th, Riemann-Integrable the
5	Integrable simple function, non-negative
6	Integrable function, Int-valued function, indefinite integral, the m. d. d. th.
7	Lebesgue measure on R ⁿ , A.C., signed measure, collection, Lebesgue and
8	signed set, Mean, integration, Lebesgue
9	Upper and lower, Lebesgue, the Lebesgue-Nikodym th, the Lebesgue-Nikodym th
10	Lebesgue and Lebesgue complete space etc function
11	Lebesgue and Lebesgue complete space etc function
12	Lebesgue and Lebesgue complete space etc function
13	Lebesgue and Lebesgue complete space etc function
14	Lebesgue and Lebesgue complete space etc function
15	Lebesgue and Lebesgue complete space etc function

Ranesh Kumar

Dr. B.R.A. Govt. College, Jagdishpura, Kaithal

Name of Assistant professor: Rakesh Kumar

Class: M.Sc.CE Subject: ~~Integrals~~ Eq. B.V.P

Week	Topic
1	Application of P.D.E., Initial value prob of B.V.P, Dirac delta function.
2	Green function approach to reduce
3	boundary value prob of self-adjoint diff eq. Green function of 1D
4	Application of P.D.E., Integral representation formula for the Laplace \rightarrow Poisson Eq, The Neuman.
5	Single-layer and double problem,
6	Green function for Laplace equation in a free space as well as in space + Laplace
7	Poisson Integral formula, Green's function for the space boundary given at two
8	parallel plates, Integral transform
9	Introduction, Fourier transform, Laplace transform, Convolution Integral, Application
10	to various Integral Equation, Application to various B.V.P. Two part B.V.P
11	Green's Three part B.V.P.
12	Integral Equation, Reduction Methods Basic Principle, Application to Electrostatic
13	steady state flow, Boundary condition
14	Steady flow, Longitudinal, steady state steady state Relativistic oscillation in steady flow, Relativistic
15	oscillation, flow-relativistic, Relativistic boundary condition Transverse Relativistic oscillation

Rakesh Kumar

Dr. B.R.A. Govt. College, Jagdishpura, Kaithal

Name of Assistant professor: Rakesh Kumar

Class: B.Sc - III Subject: Maths (Linear Algebra)

Week	Topic
1	Vector space, Subspace, Sum and direct sum, Linear span, L.D.
2	finitely generated vector space, Extension
3	finite dim vector space,
4	Invariance of the no of elements of basis, dimension, Quotient space and its dimension.
5	Homomorphism & Isomorphism, L.T, vector space
6	dual spaces, Bidual spaces, annihilator of subspace, Null space, Range space of L.T
7	Rank and Nullity theorem
8	Algebra of L.T, Minimal poly.
9	of L.T, Singular and non-singular L.T, Matrix of L.T, Change of Base
10	Eigen values and Eigen vector.
11	L.D.S; Cauchy-Schwarz inequality.
12	orthogonal vectors, orthogonal complements, orthogonal basis
13	Bessel's inequality for finite dim. vector space.
14	Gram-Smidt process. Adjoint of a L.T, Unchange L.T
15	Revision.

Rakesh Kumar

Dr. B.R.A. Govt. College, Jagdishpura, Kaithal

Name of Assistant professor: Rakesh Kumar.

Class: B.Sc - III Subject: Maths (Real and complex)

Week	Topic
1	Fourier series, Fourier expansion
2	of piecewise monotonic function.
3	Properties of Fourier coefficients
4	Darboux's conditions, Parseval's identity for Fourier series.
5	Fourier series for even and
6	odd functions.
7	Half range series, change of intervals.
8	Extended complex plane,
9	stereographic projection of complex numbers.
10	Continuity of complex function.
11	Analytic function.
12	Analytic function (Cauchy's theorem).
13	Cauchy-Riemann equation
14	Harmonic function
15	Revision

Rakesh Kumar