M.Sc III rd Sem Mathematics

Paper-1 Functional Analysis –I

1. A Study of Banach spaces and Examples.
2. A Study of Bounded linear operator.

Paper-2 General Theory of Relativity-I

1. A Study of Symmetric and skew symmetric tensors.
2. A Study of Riemannian metric. Christoffel symbols.

Paper-3 Advanced Special Function-II

1. A Study of Gamma function.
2. A Study of Factorial function, Legendre's duplication formula

Paper-4 Programming in C

1. A study of an overview of programming languages.
2. A study of Algorithm, Flow-Chart.

Paper-5 Integral Transform-I

1. A study of Laplace Transform and its Applications
2. A study of Laplace Equations and related problems.

M.Sc IV th Sem Mathematics

Paper-1 Functional Analysis -II

1. A Study of Riesz representation theorem, Reflexivity of Hilbert spaces.
2. A Study of Self-adjoint operators, Positive operators.
3. A Study of Hahn-Banach theorem for real linear spaces.

Paper-2 General Theory of Relativity-II

1. A Study of Schwarzschild external solution and its isotropic form.
2. A Study of Einstein's field equations and its Newtonian approximation.
3. A Study of Energy-momentum tensor of a perfect fluid.

Paper-3 Advanced Special Function-II

1. A Study of Bateman's generating function.
2. A Study of Generating functions for Legendre polynomials.
3. A Study of Pure recurrence relation.

Paper-4 Programming in C-II

1. A Study of Arrays: Scope and Extent, Multidimensional Arrays.
2. A Study of Functions: Function main, Functions accepting more than one parameter.
3. A Study of Union, difference between Union and Structure.

Paper-5 Integral Transform-II

1. A study of Fourier cosine and sine transform.
2. A study of Properties of Fourier transforms
3. A study of Electric circuits.