

## CURRICULUM FOR M.PHIL & PH. D. (MATHEMATICS)

Paper-1	Research Methodology	(32) Hrs.
Paper-2	Fundamental of Mathematics (Select any four units)	(32) Hrs.
Paper-3	Special paper (Select any one)	(32) Hrs.

<b>Paper - 1</b>	<b>Research Methodology</b>	<b>Hrs.</b>
Unit-I	Mathematical Software	(8)
Unit-II	Numerical Analysis : Interpretation, Integration & Differentiation, Numerical of deferential equation	(8)
Unit-III	Dimensional Analysis / Special Functions / Operation Research	(8)
Unit-IV	Integral Transform, Hankel Transform	(8)

<b>Paper - 2</b>	<b>Foundation of Mathematics (Select any four Units)</b>	<b>Hrs.</b>
Unit-I	Complex Analysis	(8)
Unit-II	Abstract Algebra	(8)
Unit-III	Linear Algebra	(8)
Unit- IV	Ordinary Differential Equations	(8)
Unit-V	Difference Equations	(8)
Unit-VI	Real Analysis	(8)
Unit-VII	Partial Differential Equations	(8)
Unit-VIII	Laplace Transform Fourier Transform	(8)

<b>Paper - 3</b>	<b>Special Paper (Select any one of the following papers)</b>	<b>Hrs.</b>
I	Methods of weighted Residules and collocation method	(32)
II	Symmetries of Differential Equations	(32)
III	Numerical solution of Boundary value problems and FEM	(32)
IV	Elements Number Theory	(32)

Each paper will consist of 4 units. And each unit will be distributed in 8 hours Total hours of content course will be of 96 hours.