

St. Xavier's College,

Ranchi

***(An Autonomous College of Ranchi
University)***

Syllabi

Department of Mathematics

MATHEMATICS HONOURS

This course is a full time course. The duration is for **three years** programme leads to the award of the degree of Bachelor in Mathematics. **(B.A. Mathematics Honours)**. The structure of this Programme is given in the following table.

SEMESTER I	PAPER 1	Group – A	TRIGONOMETRY
		Group – B	Analytic Geometry of e Dimensions
	PAPER II	Group – A	DIFFERENTIAL CALCULUS
		Group - B	Integral Calculus
SEMESTER II	PAPER III	Group - A	Real Analysis
		Group - B	Real Analysis
	PAPER IV	Group – A	Vectors
		Group – B	Matrices
SEMESTER III	PAPER V	Group – A	Linear Programming
		Group – B	Analysis
	PAPER VI	Group – A	Group Theory
		Group – B	Set Theory
		Group – C	Mechanics – Statics
SEMESTER IV	PAPER VII	Group – A	Higher Mathematics
		Group – B	Complex Analysis
	PAPER VIII	Group – A	Differential Equation
		Group – B	Mechanics – Dynamics
SEMESTER V	PAPER IX	Group – A	Analysis
		Group – B	Abstract Algebra
	PAPER X	Group – A	Abstract Algebra
		Group – B	Special Functions
	PAPER XI	Group – A	Statics
		Group – B	Dynamics
SEMESTER VI	PAPER XII	Group – A	Dynamics
		Group – B	Metric space
	PAPER XIII	Group – A	Linear Algebra
		Group – B	Differential Equation
	PAPER XIV	Group – A	Differential Equation
		Group – B	Fluid Mechanics
	PAPER XV	Group – A	Probability Theory and Statistics
		Group – B	Discrete Mathematics
	PAPER XVI	Group – A	Discrete Mathematics
		Group – B	Numerical Analysis

MATHEMATICS SUBSIDIARY

SEMESTER I	PAPER I	Differential Calculus, Integral Calculus, Vectors, Coordinate Geometry of two dimensions, Real Analysis
SEMESTR II	PAPER II	Differential Calculus, Integral Calculus, Vectors, Coordinate Geometry of two dimension, Real Analysis
SEMESTER III	PAPER III	Continuity , Set Theory, Complex Variable
		Abstract Algebra, Differential Equations
SEMESTER IV	PAPER IV	Real Analysis, Complex Variable, Abstract Algebra, Differential Equations