DEPARTMENT OF MATHEMATICS
PROGRAMME OUTCOME (PO)
CBCS BACHELOR OF SCIENCE

PO	Description
PO1	To prepare the students for a successful career in teaching or other professions as well as to motivate them for higher education and to take research as a career.
PO2	To provide strong foundation in basic sciences and mathematics.
PO3	To identify, formulate and analyze complex scientific problems reaching substantiated conclusions.
PO4	To develop individual and team work by functioning effectively as anindividual or as a member in a group in computer laboratory classes.
PO5	To develop computational , logical and analyzing ability in solving differentproblems of Mathematics.
PO6	To develop communicating ability, prepare effective presentations, andgive and receive clear instructions.
PO7	To develop the ability to engage in independent and life-long learning inthe current context of technological change.
PO8	To inculcate scientific temperament in the young minds and outside thescientific community.

DEPARTMENT OF MATHEMATICS
PROGRAMME SPECIFIC
OUTCOME(PSO)
CBCS BACHELOR OF SCIENCE

Programme Specific Outcomes Nos	**Programme Specific Outcomes (PSO)**
PSO1	To apply knowledge in emerging and varied areas of Mathematics forhigher studies, research and industries related to software applications.
PSO2	To develop leadership and managerial skills and understanding the need for lifelong learning to be a competent professional.
PSO3	To equip with front level communication technologies (ICT) for innovatingideas and solutions to existing/novel challenges.
PSO4	To be acquainted with good laboratory practices.

COURSE OUTCOME (CO)
BACHELOR OF SCIENCE - MATHEMATICS HONOURS
(CBCS SYLLABUS)

COURSE CODE and NAME	COURSE OUTCOME NAME	COURSE OUTCOME
SEM -I (Paper CC-I T) Calculus, Geometry & Differential Equation	**CO1**	This course deals with the applications of derivatives, integration and analytical geometry. It also helps to improvethe skill of sketching curves.
SEM -I (CC-2 T) Algebra	**CO2**	This course deals with the basic knowledge of complex numbers, inequalities, theory of equation and set theory. It also helps to improve the knowledge of matrices and linear transformation.
SEM-II (CC3T) Real Analysis-I	**CO3**	Understanding the properties of real numbers, sequence of real numbers and infinite series are the main goals of this course.
SEM-II (CC4T) Differential Equations &Vector Calculus.	**CO4**	Students can solve differential equations of second order and systems of linear differential equations with the help of this course. In addition, it provides the basic knowledge of vector algebra and power series solution of a differential equation.
SEM-III(CC5T) Theory of Real Functions& Introductionto Metric Space	**CO5**	Developing the concept of metric space, continuity of a function, differentiability of a function and the application ofmean value theorem are the main goals of this course.
SEM-III(CC6T) Group Theory-I	**CO6**	This course helps to develop the basic concept on group Theory.
SEM-III(CC7T) Numerical Methods	**CO7**	Students can solve the transcendental and polynomial equations, system of linear algebraic equations, ordinary differential equations with the help of numerical methods. Inaddition, this course helps to generate the ideas of numerical differentiation and integration.
SEM-III(SEC-I) Logic & Sets	**CO8**	This course provides the basic concept of logic and sets.
SEM-IV(CC8T) Riemann Integration andSeries of Functions	**CO9**	Generating the concept of Riemann Integration, Sequence of Functions, Fourier series and Power series are the ultimate aims of this course.
SEM-IV(CC9T) Multivariate Calculus	**CO10**	This course targets to encompass the portions of solving double and triple integral and developing the concept of Multivariate Calculus.
SEM-IV(CC10T) Ring Theory and Linear Algebra-I	**CO11**	This course deals with the Ring, Field, Vector Spaces and Linear Transformation.
SEM-IV(SEC-II) Graph Theory	**CO12**	This course helps to generate the idea of Graph Theory.
SEM-V(CC11T) Partial Differential Equations & Applications	**CO13**	With the help of this course, students can solve partial differential equations of first and second order specially heat equation, wave equation and Laplace equation with differential initial and boundary conditions.

SEMV-(CC12T) Group Theory-II	**CO14**	This course deals with the advanced knowledge of group Theory.
SEMV-(DSE-I) Linear Programming	**CO15**	Students can solve Linear Programming Problem specially transportation problem and assignment problem by different methods with the help of this course.
SEMV-(DSE-II) Probability & Statistics	**CO16**	Developing the deeper concept on probability and statistic are the ultimate aim of this course.
SEMVI-(CC13T) Metric Spaces and Complex Analysis	**CO17**	This course enlightens the advanced knowledge of Metric Space and Complex Numbers.
SEMVI-(CC14T) Ring Theory and Linear Algebra-II	**CO18**	This course covers with the advanced knowledge of ring theory, dual space, linear operator and Inner product space.
SEMVI-(DSE-III) Number Theory	**CO19**	Developing the deeper concept on numbers specially prime number is the aim of this course.
SEMVI-(DSE-IV) Mathematics Modelling	**CO20**	This course provides the basic ideas of mathematical modelling.

COURSE OUTCOME (CO)
BACHELOR OF SCIENCE - MATHEMATICS (GENERAL)
(CBCS SYLLABUS)

PAPER NAME	COURSE OUTCOME NAME	COURSE OUTCOME
SEM1 (DSC-1A) (CC-1) Differential Calculus	**CO21**	This course deals with the application of derivatives.
SEM2 (DSC-1B) (CC-2) Differential Equations	**CO22**	Students can learn to solve differential equations of second order andsystems of linear differential equations with the help of this course. In addition, It helps to generate the basic ideas of Partial Differential Equations.
SEM3 (DSC-1C) (CC-3) Real Analysis	**CO23**	Understanding the properties of real numbers, sequence of real numbers and infinite series are the main goals of this course.
SEM4 (DSC-1D) (CC-4) Algebra	**CO24**	This course helps to develop the basic concept on group theory, ring theory and fields.
SEM3 (SEC- I) Theory of Equation	**CO25**	This course deals with the theory of equations.

SEM4 (SEC-II) **IntegralCalculus**	**CO26**	Developing the idea of integration by partial fraction, reductionformula and the knowledge of application of integrations are the aims of this course.
SEM5 (SEC-III) **Mathematical Modeling**	**CO27**	This course provides the basic ideas of mathematical modelling.
SEM6 (SEC-IV) **Probability and Statistics**	**CO28**	Developing the basic concept on numbers specially prime number is the aims of this course.
SEM5 (DSE-1A) **Vector Calculus andAnalytical Geometry**	**CO29**	This course deals with the analytical geometry in two or threedimension and algebra of vectors.
SEM6 (DSE-1B) **NumericalMethods**	**CO30**	Students can solve the transcendental and polynomial equations, ordinary differential equations with the help of numerical methods. In addition, this course helps to generate the idea of numerical differentiation and integration.