DEPARTMENT OF MATHEMATICS (CA)

Programme: B.Sc., Mathematics with Computer Applications

PO No.	Programme Outcomes Upon completion of the B.Sc. Degree Programme, the graduate will be able to
PO-1	impact analytical and problem solving skills to enhance a broad range of real life issues
PO-2	collect, analyze and organize quantitative data to evaluate and critique conclusions
PO-3	understand and demonstrate the principles of Calculus, Algebra, Geometry, Analysis, Mechanics, Trigonometry, Statistics, Sequences and Series and Operations Research
PO-4	apply critical thinking skills to solve complex real world problems
PO-5	crack various competitive examinations like TNPSC, Bank exams, TET, SSC, RRB etc

PSO No.	Programme Specific Outcomes Upon completion of these courses the student would
PSO-1	imbibe the fundamental knowledge, skills and competencies in mathematics
PSO-2	gain necessary computer skills and knowledge to excel in professional career in related disciplines
PSO-3	develop a critical appreciation of the use of information and communication technology in mathematics
PSO-4	approach challenges with curiosity, critical thinking and creativity
PSO-5	participate in life-long learning process in different disciplines of mathematics

Course Title	MATHEMATICAL STATISTICS - I	
CODE	**18MCUA101**	
CO No.	**Course Outcomes**	**Knowledge Level**
CO-1	Recall the basic ideas of discrete distributions	K1
CO-2	Relate the basic concepts of continuous distributions	K1
CO-3	Comparethe tools of bivariate distributions	K2
CO-4	Learn and apply the functions of random variables	K3
CO-5	Utilize the concepts of central limit theorem and point estimation	K3

Course Title	Trigonometry And Vectoranalysis	
CODE	**18MCUC204**	
CO No.	**Course Outcomes**	**Knowledge Level**
CO-1	Learn to use trigonometric function to solve the problems and understand the concept of logarithmic form of a complex number	K1
CO-2	apply the ideas of tangent, normal vectors and to study the motion of an object along a space curve	K2
CO-3	find the rate of change of a function of two or more variables in any direction	K2
CO-4	Interpret the concepts of gradient, divergence and curl	K2
CO-5	Understand the concept of the line, surface and volume integrals	K3

Course Title	MATHEMATICAL STATISTICS - II	
CODE	**18MCUA202**	
CO No.	**Course Outcomes**	**Knowledge Level**
CO-1	Understand the ideas ofpoint estimation	K1
CO-2	Classify the tools of interval estimation	K2
CO-3	Demonstrate the concepts of test of statistical hypothesis	K2
CO-4	Apply the ideas of parametric test and contingency table	K3
CO-5	Develop the methods of variance	K3

Course Title	REAL ANALYSIS	
CODE	**18MCUC511**	
CO No.	**Course Outcomes**	**Knowledge Level**
CO-1	Understand the sequences and their convergence, Cauchy and monotone sequences and sandwich lemma	K1 & K2
CO-2	Determine the concept of continuity, limits and uniform continuity	K3
CO-3	Analyze the derivatives of the real valued functions and higher orders	K3
CO-4	Evaluate convergence of Infinite Series	K4
CO-5	Analyze the concept of Darboux integrability and fundamental theorems of calculus	K4

Course Title	NUMERICAL METHODS	
CODE	**18MCUE502**	
CO No.	**Course Outcomes**	**Knowledge Level**
CO-1	Learn the concept of solving quadratic, exponential, logarithmic equations	K1
CO-2	Determine the concept of problem solving ability in finite differences	K2
CO-3	Study the characteristics of finite difference operators	K2
CO-4	Acquire knowledge in central differences and interpolation formulae	K3
CO-5	Make use of different methods to solve homogeneous and non-homogeneous linear difference equations	K3

Course Title	MATHEMATICS FOR COMPETITIVE EXAMINATIONS	
CODE	**18MCUS503**	
CO No.	**Course Outcomes**	**Knowledge Level**
CO-1	Find H.C.F and L.C.M of numbers	K1
CO-2	Solve the problems on numbers	K1
CO-3	Understand the ideas to solve the problems on ages and percentage	K2
CO-4	Gain knowledge about profit and loss	K3
CO-5	Learn and Apply the concepts of simple and compound interest	K3

Course Title	INTERNET AND JAVA PROGRAMMING (THEORY)	
CODE	**18MCUC616**	
CO No.	**Course Outcomes**	**Knowledge Level**
CO-1	Demonstrate basic concepts and applications of Internet & HTML	K2
CO-2	Define the basic concepts of Data Types and Operators	K2
CO-3	Revise the concept of classes and objects	K3
CO-4	Analyze the concepts of Packages	K4
CO-5	Apply the concepts of Applet	K4

Course Title	INTERNET AND JAVA PROGRAMMING (PRACTICAL)	
CODE	**18MCUCP04/ 19MCUCP05**	
CO No.	**Course Outcomes**	**Knowledge Level**
CO-1	Construct a Program using HTML	K1
CO-2	Use the concepts of Arrays	K2
CO-3	Make Java programs using Arguments	K3
CO-4	Construct a program using Subclasses	K4
CO-5	Build programs using Threads and Interfaces	K4

Course Title	DISCRETE MATHEMATICS	
CODE	**18MCUC617**	
CO No.	**Course Outcomes**	**Knowledge Level**
CO-1	Understand the statements & notations, Connectives, tautological implications and other connectives	K1,K2
CO-2	Study about the Normal forms, the theory of inference for the statement and predicate calculus	K3
CO-3	Demonstrate the fundamental concepts of Trees, spanning trees , Rooted and binary trees	K4
CO-4	Analyse about Grammars and languages and discuss about computability theory	K2
CO-5	Evaluate the concepts of Lattices and Boolean algebra with their properties and the representation and minimization of Boolean Functions	K3