Sri Kaliswari College (Autonomous), Sivakasi

Department of Mathematics

Course Outcomes

B.Sc. Mathematics

S.No	Course Code	Course Name	Course Outcomes
			SEMESTER- I
1.	23UMAC11	**Core Course –I :** Algebra & Trigonometry	**CO1[K1]:** state the characterization of reciprocal equations, sum of binomial,exponential, logarithmic, trigonometric series, eigen values, eigen vectors of a matrix and expansion of trigonometric functions **CO2[K2]:** demonstrate the method of solving reciprocal equations, expansion oftrigonometric functions, characteristic property of hyperbolic functions, Cayley-Hamilton theorem, summation of series **CO3[K3]:** find eigen values, eigen vectors of a matrix, solution of reciprocal equations , sum of binomial, exponential, logarithmic,trigonometric functions **CO4[K4]:** explain the classification of reciprocal equations, relationship between circular and hyperbolic functions, the method of diagonalization of square matrices and the sum of binomial, exponential, logarithmic, trigonometric series **CO5[K5]:** determine the solution of reciprocal equations, sum of binomial,exponential, logarithmic, trigonometric series, powers and inverse of a square matrix and the expansion of trigonometric functions
2.	23UMAC12	**Core Course –II :** Differential Calculus	**CO1[K1]:** describe nth derivative, partial derivative, total derivative of functions and the method of finding envelope and curvature

			CO2[K2]:	exemplify successive differentiation, partial differentiation, the envelope of given family of curves, evolute, involute and curvature of curves
			CO3[K3]:	apply successive differentiation and partial differentiation in finding envelope and curvature
			CO4[K4]:	analyze the method of finding successive differentiation, partialdifferentiation, envelope and curvature
			CO5[K5]:	determine successive differentiation, partial differentiation of functions, envelope of family of curves and curvature of a curve
3.	23UMAS11	**Skill Enhancement Course I: Foundation Course:** Bridge Mathematics	**CO1[K1]:**	recall the basics of mathematics
			CO2[K2]:	explain the fundamentals of mathematics
			CO3[K3]:	solve simple problems in Algebra, Sequences and Series, Permutations and Combinations, Trigonometry and Calculus
			CO4[K4]:	interpret the elementary concepts of Algebra, Sequences and Series, Permutations and Combinations, Trigonometry and Calculus
			CO5[K5]:	assess the formulae and identities in the branches of mathematics, namely, Algebra, Sequences and Series, Permutations and Combinations, Trigonometry and Calculus
4.	23UMAN11	**Skill Enhancement Course II: Non Major Elective Course :** Mathematics for Competitive Examinations	**CO1[K1]:**	list out the basic mathematical formulae
			CO2[K2]:	explain the methods of solving aptitude problems
			CO3[K3]:	manipulate arithmetic operations to solve aptitude problems
			CO4[K4]:	analyze and make sense of the given data
			CO5[K5]:	choose the most appropriate method to solve aptitude problems
SEMESTER- II				
5.	23UMAC21	**Core Course III :** Analytical Geometry(Two & Three	**CO1[K1]:**	describe two-dimensional and three – dimensional Cartesian co-ordinates and the geometric objects line, plane, sphere on the co-ordinate system

		Dimensions)	**CO2[K2]:**	find pole, polar for conics, diameters, conjugate diameters for ellipseand hyperbola, equation of straight lines, circles, planes and spheres
			CO3[K3]:	solve the problems on two-dimensional and three – dimensional geometric shapes
			CO4[K4]:	analyze the characteristics and properties of two-dimensional and three – dimensional geometric shapes
			CO5[K5]:	evaluate the system of two-dimensional and three – dimensional geometric shapes
6.	23UMAC22	**Core Course IV :** Integral Calculus	**CO1[K1]:**	recognize the types of reduction formulae, methods of finding integrals of algebraic, trigonometric, logarithmic functions, the properties of double and triple integrals, beta and gamma functions
			CO2[K2]:	explain the relation between beta and gamma functions, geometric andphysical applications of integral calculus
			CO3[K3]:	solve multiple integrals and to find the areas of curved surfaces andvolumes of solids of revolution
			CO4[K4]:	investigate the types of reduction formula, techniques of integration, the properties of beta and gamma functions
			CO5[K5]:	evaluate double and triple integrals, indefinite integrals using beta and gamma functions
7	23UMAN21	**Skill Enhancement Course IV: Non Major Elective Course :** Statistics for Data Analytics	**CO1[K1]:**	state the formula for finding descriptive measures of statistics
			CO2[K2]:	describe the statistical method of classifying data and finding descriptive measures of statistics
			CO3[K3]:	apply the statistical methods and techniques to find numerical measures of quantitative data
			CO4[K4]:	classify and investigate the quantitative data to obtain descriptive measures of statistics

			CO5[K5]:	choose the appropriate measure of statistics for the given quantitative data

SEMESTER- III				
8.	23UMAC31	**Core Course V –** : Vector Calculus and Applications	**CO1[K1]:** **CO2[K2]:** **CO3[K3]:** **CO4[K4]:** **CO5[K5]:**	state the identities and operations in vector calculus explain the basic concepts of vector differentiation and vector integration find the important quantities associated with vector fields such as gradient, divergence, curl and the line, surface, volume integration of vector functions verify the identities involving vector quantities and the theorems of Gauss', Stoke's, Green's evaluate vector identities and their effectiveness in manipulating vectorexpressions to solve real life situations
9.	23UMAC32	**Core Course – VI :** Differential Equations and Applications	**CO1[K1]:** **CO2[K2]:** **CO3[K3]:** **CO4[K4]:** **CO5[K5]:**	describe the basic concepts of ordinary and partial Differential Equations identify the types of Ordinary and Partial Differential Equationssolve the Ordinary and Partial Differential Equations of first order and second order solve the Ordinary and Partial Differential Equations of first order and second order examine the different forms of Ordinary and Partial Differential Equations for finding the solutions determine the appropriate method of solving Ordinary and Partial Differential Equations.
10.	23UMAA31	**Elective Course Generic/ Discipline Specific - III:** Mathematical Statistics	**CO1[K1]:** **CO2[K2]:** **CO3[K3]:**	describe the basic terminologies in statistical analysis of quantitative data explainthebasicstatisticalmethodsandtechniquesindataanalysis applythestatisticalmethodsandtechniquestofindnumericalmeasuresofquantitativedata and

				calculatemathematicalexpectationandgeneratingfunctionofrandomvaria bles
			CO4[K4]:	analyzethepropertiesof statistical measures and distributionfunctionsofrandomvariables
			CO5[K5]:	determinethe appropriate measure that represent the whole quantitative data in hand and the curvethatbestfitthegivendata
11.	23UMAS3P	**Skill Enhancement Course– V: (Entrepreneurial Skill)**- Practical: Web Designing	**CO1[K2]:** **CO2[K3]:** **CO3[K4]:** **CO4[K5]:** **CO5[K6]:**	explain the features of HTML, CSS and Java Script use HTML, CSS and Java Script program codings/commands toprepare a webpage identify and rectify errors in HTML, CSS and Java Script codings select and manage tools of HTML, CSS and Java Script prepare a web page
12.	23UMAS3Q	**Skill Enhancement Course – VI:** Practical: LaTex	**CO1[K2]:** **CO2[K3]:** **CO3[K4]:** **CO4[K5]:** **CO5[K6]:**	explain the features of Latex use Latex program codings/commands to prepare academic document identify and rectify errors while run a Latex program select and manage tools of Latex prepare a document using Latex
			SEMESTER- IV	
13.	23UMAC41	**Core Course –VII :** Industrial Statistics	**CO1[K1]:** **CO2[K2]:** **CO3[K3]:** **CO4[K4]:**	describe the basic statistical methods and techniques in data analytics explain the importance of statistical quality control, time series trend values, analysis of variance and randomized experimental design apply the statistical tools and techniques to manage product quality, compare variances across the means, predict future interpret the conclusion drawn by the statistical methods of quality control, time series, analysis of variance and randomized experiment

				design, events and draw valid inference
			CO5[K5]:	estimate a valid statistical inference by the statistical methods of quality control, time series, analysis of variance and randomized experiment design, events and draw valid inference
14.	23UMAC42	**Core Course – VIII** : Elements of Mathematical Analysis	CO1[K1]:	describe the fundamental concepts of sets and functions, sequences and series of real numbers, continuous function on a metric space
			CO2[K2]:	explain the various tests for the convergence of sequences and series of real numbers
			CO3[K3]:	apply the abstract concepts to produce proofs of results that arise in the context of real analysis
			CO4[K4]:	verify the countability of sets, convergence of sequence and series of real numbers, continuity of functions on a metric space
			CO5[K5]:	determine the bounds and limits of real sequences, the sum of real series
15.	23UMAA41	**Elective Course Generic/ Discipline Specific - IV:** Numerical Methods with Applications	CO1[K1]:	describe the basic concepts in numerical analysis
			CO2[K2]:	explain the methods of solving algebraic, transcendental, simultaneous equations, finding numerical differentiation and integration
			CO3[K3]:	apply numerical methods to obtain approximate solutions of algebraic, transcendental and simultaneous equations, numerical differentiation and integration of given functions
			CO4[K4]:	examine the numerical solution of algebraic, transcendental, simultaneous equations, numerical differentiation and integration of functions and interpolating values of the given data
			CO5[K5]:	determine the appropriate method of solving algebraic, transcendental, simultaneous equations numerically, finding numerical differentiation and integration of functions and findingmissing values of a given data

16.	23UMAS4P	**Skill Enhancement Course – VII:** Practical: Statistics with SPSS	**CO1[K1]:** statethe basic functions of SPSS **CO2[K2]:** explain various procedures in SPSS to perform statistical data analysis **CO3[K3]:** solve statistical problems through a hoc analysis, hypothesis testing and predictive analysis using SPSS **CO4[K4]:** analyze and interpret statistical data through SPSS **CO5[K5]:** select and manage SPSS software with flexible deployment options
17.	23UMAS4Q	**Skill Enhancement Course – VIII:** Practical: Data Analysis using R	**CO1[K1]:** statethe fundamental commands and syntax of R **CO2[K2]:** explain the steps to perform data analysis in R **CO3[K3]:** use R programming to analyze quantitative data **CO4[K4]:** identify and rectify errors while running R program **CO5[K5]:** select and manage tools of R
		SEMESTER- V	
19.	23UMAC51	**Core Course – IX :** Abstract Algebra	**CO1[K1]:** state the fundamental concepts of groups and rings **CO2[K2]:** identify the algebraic structures of groups and rings **CO3[K3]:** apply the abstract concepts to produce proofs of results that arise inthe context of groups and rings **CO4[K4]:** examine the properties of groups, rings and integral domains **CO5[K5]:** asses the structure of groups and rings
20.	23UMAC52	**Core Course – X :** Real Analysis	**CO1[K1]:** describe the basic elements of real analysis **CO2[K2]:** explain the basic concepts and proof techniques in real analysis **CO3[K3]:** apply the abstract concepts to produce proofs of results that arise inthe context of real analysis **CO4[K4]:** explore the characterization of connected, complete, compact metricspaces and the properties of derivatives and integrals of functions

			CO5[K5]:	determine the continuity and convergence of functions on metric spaces, the connectedness, completeness, compactness, boundedness of sets in a metric space, the derivative and integral of functions onmetric spaces
21.	23UMAC53	**Core Course – XI :** Mathematical Modelling	CO1[K1]: CO2[K2]: CO3[K3]: CO4[K4]: CO5[K5]:	recognize the basics of mathematical modeling identify and simplify the real-world problem situation construct a mathematical model of real-world problems and solve themodel using differential and difference equations interpret the mathematical models of the real-world problems validate the mathematical model of the real-world problems
22.	23UMAJ51	**Core Course – XII:** Project with Viva Voce	CO1[K2]: CO2[K3]: CO3[K4]: CO4[K5]: CO5[K6]:	express their views with apt illustrations and critical support organize the views and format them into a research paper analyze the views which take about various approaches to thedefinition terms evaluate the findings of the study compile the Documentation as per the latest Research Methodology
23.	23UMAO5P	**Elective Courses Generic/ Discipline Specific - V:** Programming in C with Practical	CO1[K1]: CO2[K2]: CO3[K3]: CO4[K4]: CO5[K5]:	identify the basic concepts of the programming language C classify the operations of input , output and decision making statements apply the concepts of functions and arrays for efficient execution oftask analyze the various methods of solving a problem and choose the bestmethod evaluate the importance and usage of various concepts of pointers
24.	23UMAO5Q	**Elective Courses Generic/ Discipline**	CO1[K1]: CO2[K2]:	outline the basic concepts of PHP understand the basics of PHP functions, forms and expressions

		Specific - V:PHP Programming with Practical	CO3[K3]:	illustrate the concepts of server variables and debug the errors
			CO4[K4]:	examine the importance and usage of various expressions and forms
			CO5[K5]:	design and create a web page using form elements to build a challenging subsystem
25.	23UMAO51	Elective Courses Generic/ Discipline Specific - VI:Optimization Techniques	CO1[K1]:	state the terms, tools and techniques of solving optimization problems
			CO2[K2]:	explain the solution procedure for solving linear programmingproblems, game theory problems and queueing theory problems
			CO3[K3]:	find the optimal solution of linear programming problems, problems ingame theory and queueing theory
			CO4[K4]:	examine the optimality of solutions of optimization problems
			CO5[K5]:	determine an appropriate method of solving linear programmingproblems, problems in game theory and queueing theory
26.	23UMAO52	Elective Courses Generic/ Discipline Specific - VI:Integral Transforms & Z Transforms	CO1[K1]:	describe the boundary value and initial value problems
			CO2[K2]:	explain the general form and properties of various integral transforms
			CO3[K3]:	find the Fourier, Hilbert, Stieltjes, Hankel and Z-Transform of givenfunctions
			CO4[K4]:	analyze the properties of integral transforms
			CO5[K5]:	determine the appropriate integral transform that simplifies thecomputational techniques considerably
27.	23UMAJ52	INTERNSHIP/INDUSTRIAL TRAINING	CO1[K1]:	identify different career paths within the industry and gain insights into potential future roles
			CO2[K3]:	apply theoretical concepts and academic knowledge to real-world situations and challenges encountered during the internship
			CO3[K4]:	analyse problems, generate innovative solutions, and make informeddecisions
			CO4[K5]:	evaluate how to manage time effectively and prioritize tasks to

				meetdeadlines and deliver quality work
			CO5[K6]:	create a portfolio of the work, projects, and achievements during theinternship
SEMESTER- VI				
28.	23UMAC61	**Core Course – XIII :** Linear Algebra	CO1[K1]:	describe the important topics of linear algebra
			CO2[K2]:	explain the basic concepts and general theory of vector spaces, innerproduct spaces and matrices
			CO3[K3]:	apply the abstract concepts to produce proofs of results that arise inthe context of linear algebra
			CO4[K4]:	interpret the matrix representation of system of linear equations andlinear transformations, Cayley-Hamilton theorem and Gram-Schmidt orthogonolization process
			CO5[K5]:	determine linear span of a set, basis and dimension of a vector space,matrix representation of a linear transformation, orthogonal basis of an inner product space, eigen values and eigen vectors of a matrix
29.	23UMAC62	**Core Course – XIV :** Complex Analysis	CO1[K1]:	describe the elementary topics in complex analysis
			CO2[K2]:	explain the basic concepts and properties of functions of complexvariables
			CO3[K3]:	apply the abstract concepts to produce proofs of results that arise inthe context of complex analysis
			CO4[K4]:	analyze the behaviour of analytic functions and conformal maps,convergence of sequences and series of functions of complex variables

			CO5[K5]:	determine the continuity, differentiability, integrability of complexfunctions, series expansion of analytic functions in the region ofconvergence, zeros and poles of analytic functions
30.	23UMAC63	**Core Course – XV:** Mechanics	CO1[K1]:	describe the basic terminologies of mechanics
			CO2[K2]:	explain the fundamental concepts and principles of mechanics
			CO3[K3]:	apply the principles and methods of mechanics to find the resultant offorces on bodies concerned in statics and kinematic quantities ofprojectile motion
			CO4[K4]:	investigate the motion of a particle under action of various forces
			CO5[K5]:	evaluate the fundamental laws of mechanics
31.	23UMAO61	**Elective Courses Generic/ Discipline Specific - VII:**Graph Theory and Applications	CO1[K1]:	describe the basic terminologies of graph theory
			CO2[K2]:	explain the elements and concepts in graph theory
			CO3[K3]:	apply the abstract concepts to produce proofs of results that arise inthe context of graph theory
			CO4[K4]:	examine the characterizations of various graphs
			CO5[K5]:	determine connectivity, traversability, planarity, cutpoints, bridges,blocks of a graph and various operations on graphs
32.	23UMAO62	**Elective Courses Generic/ Discipline Specific - VII:**Discrete Mathematics	CO1[K1]:	describe terminologies related to functions, recurrence relations, logic,semigroups, monoids
			CO2[K2]:	explain the basic concepts related to functions, semigroups, monoids,recurrence relation, logic
			CO3[K3]:	find the inverse and composition of functions, solution of recurrencerelations, truth values of propositional statements, normal forms oflogical statements
			CO4[K4]:	analyze the types of functions, the axioms and properties of thealgebraic structures semigroups and monoids, recurrence relations of sequences,

			CO5[K5]:	tautological implications and the theory of inference validate the equivalence of logic formulae, homomorphism andisomorphism of semigroups and monoids, the generating functions ofrecurrence relations
33.	23UMAO6P	**Elective Courses Generic/ Discipline Specific - VIII:**Programming in C++ with Practical	CO1[K1]:	outline the C++ programming fundamentals and the concepts of object-oriented programming like object and class, Encapsulation, inheritance and polymorphism.
			CO2[K2]:	explain the control structures, types of constructors, inheritance and different type conversion mechanisms
			CO3[K3]:	use C++ codes efficiently to develop programs
			CO4[K4]:	analyze the importance of object oriented programming features like polymorphism, reusability, generic programming, data abstraction and the usage of exception handling
			CO5[K5]:	determine the use of object oriented features such as classes, overloading to develop C++ programs for complex problems.
34.	23UMAO6Q	**Elective Courses Generic/ Discipline Specific - VIII:**Programming in Python with Practical	CO1[K1]:	outline the basic concepts in python language.
			CO2[K2]:	interpret different looping and conditional statements in python language.
			CO3[K3]:	apply the various data types and identify the usage of control statements, loops, functions.
			CO4[K4]:	analyze and solve problems using basic constructs and techniques ofpython.
			CO5[K5]:	assess the approaches used in the development of interactive application.
35.	23UMAS6P	**Skill Enhancement Course – IX: Professional**	CO1[K1]:	describe the features of Matlab, Maple, Scilab
			CO2[K2]:	explain the basics of Matlab, Maple, Scilab
			CO3[K3]:	use Matlab, Maple, Scilabcodings/commands to do mathematical

| | Competency Skill:
Practical:
Computational
Mathematics | | CO4[K4]: | manupulations
identify and rectify errors while running Matlab, Maple, Scilab programs |
| | | | CO5[K5]: | select and manage tools of Matlab, Maple, Scilab |

B.Sc. Physics / B. Sc. Chemistry

S.No	Course Code	Course Name	Course Outcomes	
SEMESTER- I				
1.	23UPHA11/23UCHA11	**ELECTIVE COURSE GENERIC / DISCIPLINE SPECIFIC - I: MATHEMATICS - I**	CO1[K1]:	state the elementary concepts of calculus, numerical methods of solvingequations, eigen values and eigen vectors of matrices
			CO2[K2]:	explain the application of differentiation, integration and the methodof solving polynomial equations numerically
			CO3[K3]:	find the numerical solution of polynomial equations, eigen values andeigen vectors of matrices, curvature and radius of curvature of curves,area, volume and centroid of surfaces
			CO4[K4]:	interpret Cayley-Hamilton theorem, Leibnitz theorem, Jacobian determinant, iterative methods of solving polynomial equations
			CO5[K5]:	determine the approximate solution of polynomial equationsnumerically,inverse, eigen values and eigenvectors of a matrix, n^{th}derivative of afunction, curvature and radius of curvature of a curve, double and tripleintegration of integrands
SEMESTER- II				

S.No	Course Code	Course Name	Course Outcomes	
2.	23UPHA21/23UCHA21	**ELECTIVE COURSE GENERIC / DISCIPLINE SPECIFIC - II:MATHEMATICS - II**	**CO1[K1]:**	describe the terminologies intrigonometric functions, hyperbolic functions, partialdifferentiation, vector calculus and interpolation
			CO2[K2]:	explain the elementary concepts of trigonometric functions, hyperbolicfunctions, partial differentiation, vector calculus and interpolation
			CO3[K3]:	find out the expansions of trigonometric functions, the missing valuesofgiven data, divergence and curl of the vector field, partial differentiation of functions
			CO4[K4]:	characterize the properties of divergence and curl, hyperbolic functions and partial derivatives of functions
			CO5[K5]:	determine the missing values of given data, partial differentiation of functions, expansion of trigonometric functions, derivatives of vector functions

B.Sc. Computer Science/Computer Science (Cloud Computing and Cyber Security)

S.No	Course Code	Course Name	Course Outcomes	
			SEMESTER- I	
1.	23UCSA11 /23UCYA11	**ELECTIVE COURSE GENERIC / DISCIPLINE SPECIFIC - I:DISCRETE MATHEMATICS - I**	**CO1[K1]:**	define the discrete objects in the context of mathematical structures forcomputer science and applications
			CO2[K2]:	recognizethepropertiesofsetoperations, relations and functions, matrix operations, logic statements, various graphs
			CO3[K3]:	compute various operations on sets, relations, functions, matrices, graphs and truth values of logic statements

			CO4[K4]:	classify the types of relations, functions, matrices, logic statements and graphs
			CO5[K5]:	assess the equivalency of relations, invertibility of functions, tautologicalimplications and equivalence of logic formulae, the method of solving graph optimization problems
SEMESTER- II
2.	**23UCSA21 / 23UCYA21**	**ELECTIVE COURSE GENERIC / DISCIPLINE SPECIFIC - II:DISCRETE MATHEMATICS – II**	**CO1[K1]:**	state the basic terminologies of linear programming problem, transportation problem, assignment problem, curve fitting, numerical solutions of polynomial equations
			CO2[K2]:	explain the methods of solving linear programming problem, transportationproblem, assignment problem, fitting curve for given data, solving polynomial equations numerically
			CO3[K3]:	find optimal solution of linear programming problem, transportation problem,assignment problem, numerical solution of polynomial equations and a curve that best fit the given data
			CO4[K4]:	examine the optimality of solutions of linear programming problem,transportation problem, assignment problem and the empirical relation of given data
			CO5[K5]:	asses the method of finding the optimal solution of linear programming problem, transportation problem, assignment problem,the curve that best fit the given data, the numerical solution ofpolynomial equations
SEMESTER- III
3.	**23UCSA31/23UCYA31**	**ELECTIVE COURSE**	**CO1[K1]:**	describe the basic concepts in numerical analysis

		GENERIC / DISCIPLINE SPECIFIC - III: NUMERICAL METHODS	**CO2[K2]:** explain the methods of solving algebraic, transcendental, differential equations numerically, finding numerical differentiation and integration and interpolating values
			CO3[K3]: apply numerical methods to obtain approximate solutions of algebraic, transcendental and differential equations, numerical differentiationandintegration of given functions, missing values of given data
			CO4[K4]: examine the numerical solution of algebraic, transcendental differential equations, numerical differentiation and integration of functions and interpolating values of the given data
			CO5[K5]: determine the appropriate method of solving algebraic, transcendental differential equations numerically, finding missing values of a given data, interpolating the given data

BCA

S.No	Course Code	Course Name	Course Outcomes
			SEMESTER- I
1.	23UCAA11	ELECTIVE COURSE GENERIC / DISCIPLINE SPECIFIC - I:DISCRETE MATHEMATICS – I	**CO1[K1]:** define the discrete objects in the context of mathematical structures forcomputer science and applications
			CO2[K2]: recognizethepropertiesofsetoperations, relations and functions, matrix operations, logic statements, various graphs
			CO3[K3]: compute various operations on sets, relations, functions, matrices, graphs and truth values of logic statements
			CO4[K4]: classify the types of relations, functions, matrices, logic

S.No	Course Code	Course Name	Course Outcomes	
			statements and graphs	
			CO5[K5]:	assess the equivalency of relations, invertibility of functions, tautologicalimplications and equivalence of logic formulae, the method of solving graph optimization problems
SEMESTER- II				
2.	**23UCAA21**	**ELECTIVE COURSE GENERIC/ DISCIPLINE SPECIFIC-II:OPTIMIZATION TECHNIQUES**	CO1[K1]:	state the basic terminologies of linear programming problem, transportation problem and assignment problem
			CO2[K2]:	explain the methods of solving linear programming problem, transportation problem and assignment problem
			CO3[K3]:	find optimal solution of linear programming problem, transportation problem and assignment problem
			CO4[K4]:	examine the optimality of solutions of linear programming problem, transportation problem and assignment problem
			CO5[K5]:	determine the appropriate method of finding the optimal solution of linear programming problem, transportation problem and assignment problem

B.Sc(IT)

S.No	Course Code	Course Name	Course Outcomes	
SEMESTER- I				
1.	**23UITA11**	**ELECTIVE COURSE GENERIC / DISCIPLINE SPECIFIC - I:DISCRETE MATHEMATICS – I**	CO1[K1]:	define the discrete objects in the context of mathematical structures forcomputer science and applications
			CO2[K2]:	recognizethepropertiesofsetoperations, relations and functions, matrix operations, logic statements, various graphs
			CO3[K3]:	compute various operations on sets, relations, functions, matrices, graphs and truth values of logic statements
			CO4[K4]:	classify the types of relations, functions, matrices, logic

				statements and graphs
			CO5[K5]:	assess the equivalency of relations, invertibility of functions, tautologicalimplications and equivalence of logic formulae, the method of solving graph optimization problems
SEMESTER- II				
2.	23UITA21	**ELECTIVE COURSE GENERIC / DISCIPLINE SPECIFIC - II:DISCRETE MATHEMATICS - II**	**CO1[K1]:**	state the basic terminologies of linear programming problem, transportation problem, assignment problem, curve fitting, numerical solutions of polynomial equations
			CO2[K2]:	explain the methods of solving linear programming problem, transportationproblem, assignment problem, fitting curve for given data, solving polynomial equations numerically
			CO3[K3]:	find optimal solution of linear programming problem, transportation problem,assignment problem, numerical solution of polynomial equations and a curve that best fit the given data
			CO4[K4]:	examine the optimality of solutions of linear programming problem,transportation problem, assignment problem and the empirical relation of given data
			CO5[K5]:	asses the method of finding the optimal solution of linear programming problem, transportation problem, assignment problem,the curve that best fit the given data, the numerical solution ofpolynomial equations