

Academic Year 2019-20

**B.P.H.E. Society's
Ahmednagar College, Ahmednagar
Internal Quality Assurance Cell
CO, PO, and PSO Attainment Sheet**

Department Name 2019-20

Program Name M.Sc.

Program Outcomes(PO)

PO1	To take care of fast development in the knowledge of mathematics.
PO2	To enhance the quality and standards of Mathematics Education.
PO3	To provide a broad common frame work, for exchange, mobility and free dialogue across the Indian Mathematical and associated community.
PO4	Capable of analyzing the results critically and applying acquired knowledge to solve the problems
PO5	Capable to identify, formulate, investigate and analyze the scientific problems and innovatively design and create product solutions to professional and real life problems.
PO6	Able to develop a research aptitude and apply knowledge to find the solution of burning research problems in the concerned and associated fields at global level.
PO7	Able to Learn interdisciplinary and multidisciplinary skill sets and advanced techniques to apply them for better livelihood of mankind.
PO8	Able to learn and work in a groups and capable of leading a team even
PO9	Able to acquire lifelong learning skills which will lead important to better opportunities and improve quality of life.
PO10	To create and aptitude for Mathematics in those students who show a promise for higher studies and creative work in Mathematics.
PO11	
PO12	

Program Specific Outcome(PSO)

PSO1	Will have a strong foundation in both pure and applied mathematics.
PSO2	Will have the knowledge of the fundamental axioms in mathematics and capability of developing ideas based on them and intricate mathematical reasoning.
PSO3	Will be able to apply mathematical skills for solving problems and can prepare himself for various competitive exams.

Academic Year :	2019-20
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Class		M.Sc.I	Course Outcomes	Program Outcomes										PSOs		
Subject Code	MTUT111			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
Subject Name	Linear Algebra		CO1	2	1	1	1	2	1	1	1	1	2	2	2	1
Semester No	I		CO2	2	1	1	2	1	2	2	1	2	2	1	2	1
Teacher Name	R.R.Devadhe		CO3	1	1	2	3	1	2	1	1	2	2	1	2	1
Course Outcomes			CO4	3	2	1	3	3	2	1	1	1	2	2	3	1
	CO1	Can imagine the results of basic operations on vectors in geometrically and differentiate between Finite and Infinite Dimensional Vector Spaces	CO5													
	CO2	Can differentiate between Eigen Values and Eigen Vectors along with its Applications along with real life examples of the difference between Linear and Non – Linear Transformation	Average	2.00	1.25	1.25	2.25	1.75	1.75	1.25	1.00	1.50	2.00	1.50	2.25	1.00
	CO3	Can recognize the invariant and Non – invariant subspaces under the given linear operator														
	CO4	Can tell the applications of Linear Algebra to real life														
	CO5															

Class		M.Sc.I	Course Outcomes	Program Outcomes										PSOs		
Subject Code	MTUT112			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3

Subject Name	Real Analysis		CO1	1	2	1	1	2	1	1	1	1	1	1	2	
Semester No	I		CO2	1	1	2	2	1	2	1	1	2	1	1	2	1
Teacher Name	R.R.Devadhe		CO3	1	1	2	3	2	2	1	1	2	2	1	2	2
Course Outcomes			CO4	3	2	1	3	3	2	1	1	1	2	2	1	1
	CO1	The successful completion of this course students will able to find the measure of sets	CO5													
	CO2	The successful completion of this course students will able to evaluate derivative and integration of functions defined on R^n	Average	1.50	1.50	1.50	2.25	2.00	1.75	1.00	1.00	1.50	1.50	1.25	1.50	1.50
	CO3	Students can apply the theory in the course to solve a variety of problems at an appropriate level of difficulty														
	CO4															
	CO5															

Class	M.Sc.I	Course Outcomes	Program Outcomes										PSOs			
Subject Code	MTUT113		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	
Subject Name	Group Theory	CO1	1	2	1	1	2	1	1	1	1	1	1	2	1	
Semester No	I	CO2	2	1	1	3	1	3	2	3	2	2	3	2	3	
Teacher Name	A.E.Lagad	CO3	1	1	2	1	1	2	1	1	3	2	1	1	2	
Course Outcomes			CO4	2	2	2	1	2	2	1	1	1	1	2	1	
	CO1	Recognize the mathematical objects that are groups, and classify them as abelian, cyclic and permutation groups, etc.	CO5													
	CO2	Identify the various algebraic structures with their corresponding binary operations.	Average	1.50	1.50	1.50	1.50	1.50	2.00	1.25	1.50	1.75	1.50	1.50	1.75	1.75
	CO3	Learn about structure preserving maps between groups and their consequences.														

	CO4	Apply Sylow theorems for groups of finite orders.
	CO5	

Class		M.Sc.I	Course Outcomes	Program Outcomes										PSOs		
Subject Code	MTUT114	Subject Name		Advanced Calculus	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
Semester No	I	Teacher Name	S.B.Gandhale	CO1	1	3	2	1	2	1	1	1	1	1	2	1
				CO2	2	1	1	2	2	2	3	2	2	2	2	2
				CO3	2	1	2	1	1	3	1	2	1	1	1	2
				CO4	2	2	2	1	2	2	2	1	1	1	1	2
	CO1	Be able to define and differentiate scalar and vector fields.	CO5													
	CO2	Be able to calculate directional derivatives, partial derivatives, and higher-order partial derivatives.	Average	1.75	1.75	1.75	1.25	1.75	2.00	1.50	1.50	1.50	1.25	1.25	1.50	1.75
	CO3	Be able to define and evaluate double integrals.														
	CO4	Be able to define and calculate surface integrals.														
	CO5															

Class		M.Sc.I	Course Outcomes	Program Outcomes										PSOs		
Subject Code	MTUT115	Subject Name		Ordinary Differential Equations	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
Semester No	I	Teacher Name	S.A.Ghule	CO1	1	2	2	1	1	1	1	1	1	1	1	2
				CO2	2	1	1	2	2	2	2	2	2	2	2	2
				CO3	2	1	2	1	1	2	2	1	2	1	2	2
				CO4	1	2	1	1	2	2	2	1	1	1	1	1
	CO1	Students are able to find solutions of linear equations of first order.	CO5													

	CO2	Students can find solutions for homogeneous and non-homogeneous equations of second order.	Average	1.50	1.50	1.50	1.25	1.50	1.75	1.75	1.25	1.50	1.25	1.50	1.50	1.75
	CO3	Understand the Existence and Uniqueness of solutions.														
	CO4	Students learn a system of differential equations.														
	CO5															

Class		M.Sc.I	Course Outcomes	Program Outcomes										PSOs		
Subject Code	MTUT 121	PO1		PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	
Subject Name	Complex Analysis	CO1	1	2	2	1	2	1	1	1	1	1	3	2	2	
Semester No	II	CO2	2	1	1	2	2	2	2	2	2	2	2	2	2	
Teacher Name	U.M.Patare	CO3	2	2	2	1	1	2	2	1	2	2	2	2	2	
Course Outcomes		CO4	1	2	1	1	2	2	2	1	1	1	1	1	1	
	CO1	Understand the significance of differentiability of complex functions leading to the understanding of Cauchy-Riemann equations.	CO5													
	CO2	Evaluate the contour integrals and understand the role of Cauchy-Goursat theorem and the Cauchy integral formula.	Average	1.50	1.75	1.50	1.25	1.75	1.75	1.75	1.25	1.50	1.50	2.00	1.75	1.75
	CO3	Expand some simple functions as their Taylor and Laurent series, classify the nature of singularities, find residues and apply Cauchy Residue theorem to evaluate Integrals														
	CO4	Represent functions as Taylor, power and Laurent series, classify singularities and poles, find residues and evaluate complex integrals using the residue theorem.														
	CO5															

Class		M.Sc.I	Course Outcomes	Program Outcomes										PSOs		
Subject Code	MTUT 122			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
Subject Name	General Topology	CO1	2	2	2	1	1	1	1	1	1	1	1	1	2	
Semester No	II	CO2	2	1	1	2	2	2	2	2	1	1	2	1	1	
Teacher Name	R.R.Devadhe	CO3	2	1	2	1	1	2	1	1	2	1	2	2	2	
Course Outcomes		CO4	1	2	2	1	1	2	2	1	1	1	2	1	1	
	CO1	Understand terms, definitions and theorems related to topological spaces	CO5													
	CO2	Demonstrate knowledge and understanding of concepts such as open and closed sets, interior, closure and boundary, connectedness, compactness, countability and separation axioms.	Average	1.75	1.50	1.75	1.25	1.25	1.75	1.50	1.25	1.25	1.00	1.75	1.25	1.50
	CO3	Create new topological spaces from existing topological spaces.														
	CO4	Understand difference and interrelationship between Metric Spaces and Topological Space														
	CO5															

Class		M.Sc.I	Course Outcomes	Program Outcomes										PSOs		
Subject Code	MTUT 123			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
Subject Name	Ring Theory	CO1	2	2	2	1	1	1	1	1	2	1	2	1	2	
Semester No	II	CO2	2	1	1	2	2	3	2	2	1	1	2	1	1	
Teacher Name	P.R.Kale	CO3	1	1	2	1	1	2	1	1	2	1	2	2	1	
Course Outcomes		CO4														
	CO1	Students understand the fundamental concept of Rings, Fields, subrings, integral domains and the corresponding Homomorphism's.	CO5													

	CO2	Students learn in detail about polynomial rings. Matrix ring and group ring.	Average	1.67	1.33	1.67	1.33	1.33	2.00	1.33	1.33	1.67	1.00	2.00	1.33	1.33
	CO3	Students are able to determine or classify rings into UFD, PID and ED														
	CO4															
	CO5															

Class		M.Sc.I	Course Outcomes	Program Outcomes										PSOs		
Subject Code	MTUT 124	Subject Name		Advanced Numerical Analysis	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
Semester No	II	Teacher Name	S.B.Gandhale	CO1	1	2	2	2	1	1	1	1	1	1	1	1
				CO2	2	1	1	2	2	2	2	1	1	2	1	1
				CO3	2	1	2	1	1	2	1	1	2	1	2	2
				CO4	1	2	3	1	1	2	2	1	1	2	1	1
	CO1	Solve the root finding problems with an arbitrary nonlinear function.	CO5													
	CO2	Use the direct and iterative techniques for the solution of systems of linear algebraic equations.	Average	1.50	1.50	2.00	1.50	1.25	1.75	1.50	1.25	1.25	1.00	1.50	1.25	1.25
	CO3	Determine the value of the interpolating polynomial at a single value of the independent variable.														
	CO4	Apply the numerical techniques of differentiation and integration for engineering problems.														
	CO5															

Class		M.Sc.I	Course Outcomes	Program Outcomes										PSOs		
Subject Code	MTUT 125	Subject Name		Partial Differential Equations	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
Semester No	II	Teacher Name	S.A.Ghule	CO1	2	2	2	1	1	1	1	1	1	1	1	1
				CO2	1	1	1	2	2	2	2	1	1	2	1	1
				CO3	2	1	2	1	1	1	1	1	2	1	2	2

Course Outcomes			CO4	1	1	1	1	1	2	2	1	1	2	1	1	1
	CO1	Students can formulate, classify and transform partial differential equations into canonical form.	CO5													
	CO2	They can solve linear partial differential equations using various methods and	Average	1.50	1.25	1.50	1.25	1.25	1.50	1.50	1.25	1.25	1.25	1.50	1.25	1.25
	CO3	They apply these methods in solving some physical problems. Solve Laplace equations using various analytical methods demonstrate uniqueness of														
	CO4	Students able to solve Laplace equations using various analytical methods demonstrate uniqueness of solutions of certain kinds of these equations														
	CO5															

Academic Year :	2019-20
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Class		M.Sc.II	Course Outcomes	Program Outcomes										PSOs		
Subject Code	MT-701			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
Subject Name	Combinatorics		CO1	1	2	2	1	1	1	1	1	1	1	1	1	2
Semester No	III		CO2	2	1	1	1	2	2	2	2	1	1	2	1	1
Teacher Name	S.B.Gandhale		CO3	2	1	2	1	1	1	1	1	2	2	1	2	2
Course Outcomes			CO4	1	2	2	1	1	2	2	1	1	1	2	2	1
	CO1	To learn general counting methods for arrangements and selection.	CO5													
	CO2	Test and validate Binomial identities, distribution problems. Explain various counting principles and Binomial Identities to solve different problems .	Average	1.50	1.50	1.75	1.00	1.25	1.50	1.50	1.25	1.25	1.25	1.50	1.50	1.50
	CO3	Students will able to use generating functions and recurrence relations to solve problems .														
	CO4	Apply Inclusion-Exclusion Principle to solve combinatorial problems.														
	CO5															

Class		M.Sc.II	Course Outcomes	Program Outcomes										PSOs		
Subject Code	MT-702			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3

Subject Name	Field Theory	CO1	2	2	2	1	1	1	1	1	1	1	1	1	2	
Semester No	III	CO2	2	1	1	2	2	2	2	2	1	1	2	1	1	
Teacher Name	A.E.Lagad	CO3	2	1	2	1	1	2	1	1	2	1	2	2	2	
Course Outcomes		CO4	1	2	2	1	1	2	2	1	1	1	2	1	1	
	CO1	To learn algebraic Extension of fields	CO5													
	CO2	To understand normal extensions, multiple roots, finite fields, separable extensions.	Average	1.75	1.50	1.75	1.25	1.25	1.75	1.50	1.25	1.25	1.00	1.75	1.25	1.50
	CO3	To learn Galois Theory														
	CO4	To understand applications of Galois theory to classical problems														
	CO5															

Class	M.Sc.II	Course Outcomes	Program Outcomes										PSOs			
Subject Code	MT-703		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	
Subject Name	Functional Analysis	CO1	2	1	1	2	2	2	2	2	1	1	2	1	1	
Semester No	III	CO2	2	1	2	1	1	2	1	1	2	1	2	2	2	
Teacher Name	N.A.Gayke	CO3	1	2	2	1	1	2	2	1	1	1	2	1	1	
Course Outcomes		CO4														
	CO1	To learn normed linear spaces,Hahn-Banach theorem.	CO5													
	CO2	To understand Orthonormal sets., the conjugate space H^* ,the adjoint of an operator	Average	1.67	1.33	1.67	1.33	1.33	2.00	1.67	1.33	1.33	1.00	2.00	1.33	1.33
	CO3	To learn Normal and unitary operators.														
	CO4															
	CO5															

Class	M.Sc.II	Course Outcomes	Program Outcomes										PSOs		
Subject Code	MT-704		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
Subject Name	Graph Theory	CO1	1	2	2	1	1	1	1	1	1	1	1	1	2

Semester No	III	CO2	2	1	1	2	2	2	2	2	1	2	2	1	1	
Teacher Name	R.R.Devadhe	CO3	2	1	2	1	1	1	1	1	2	1	2	2	2	
Course Outcomes		CO4	1	1	2	1	1	2	2	1	1	1	2	1	1	
	CO1	To understand algorithms to find the components of a graph and the strongly connected components of a digraph.	CO5													
	CO2	To understand algorithms to construct breadth first search and depth first search spanning trees of a connected graph.	Average	1.50	1.25	1.75	1.25	1.25	1.50	1.50	1.25	1.25	1.25	1.75	1.25	1.50
	CO3	To learn algorithms for finding a maximum matching and a maximum weight matching in a bipartite graph.														
	CO4	To understand algorithms for finding an Euler trail in a graph or digraph and for solving the Chinese Postman Problem.														
	CO5															

Class	M.Sc.II	Course Outcomes	Program Outcomes										PSOs		
Subject Code	MT-710		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
Subject Name	Linear Integral Equations	CO1	1	2	2	1	1	1	1	1	1	1	1	1	2
Semester No	III	CO2	2	1	1	2	2	2	2	2	2	2	2	2	2
Teacher Name	D.S.Deshpande	CO3	2	1	2	1	1	2	2	1	2	1	2	2	2
Course Outcomes		CO4	1	2	1	1	2	2	2	1	1	1	1	1	1
	CO1	Students who succeeded in this course; <input type="checkbox"/> Will be able to classify integral equations.	CO5												

	CO2	They Will be able to apply functional analytic methods on operators and integral equations.	Average	1.50	1.50	1.50	1.25	1.50	1.75	1.75	1.25	1.50	1.25	1.50	1.50	1.75
	CO3	Students Will be able to analyse the methods such as integral transforms, Green’s function, the concept of resolvent, uniqueness theorems, Fredholm Theory														
	CO4	They Will be able to apply the theory of integral equations to other disciplines like applied mathematics, science and engineering.														
	CO5															

Class		M.Sc.II	Course Outcomes	Program Outcomes										PSOs			
Subject Code	MT-801	Subject Name		Number Theory	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
Semester No	IV	Teacher Name	D.S.Deshpande	CO1	1	2	1	1	2	1	1	1	1	1	1	2	
Course Outcomes		CO2		CO2	1	1	2	2	1	2	1	1	2	1	1	1	
		CO3		CO3	1	1	2	3	2	2	1	1	2	2	1	2	
		CO4		CO4	3	2	1	3	3	2	1	1	1	2	2	1	
	CO1	Upon successful completion of this course, students : □ Effectively express the concepts and results of Number Theory.	CO5														
	CO2	Students can construct mathematical proofs of statements and find counterexamples to false statements in Number Theory.	Average		1.50	1.50	1.50	2.25	2.00	1.75	1.00	1.00	1.50	1.50	1.25	1.50	1.50

	CO3	Students can collect and use numerical data to form conjectures about the integers.
	CO4	Students understand the logic and methods behind the major proofs in Number Theory.
	CO5	

Class		M.Sc.II	Course Outcomes	Program Outcomes										PSOs		
Subject Code	MT-802			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
Subject Name	Differential Geometry		CO1	2	2	2	1	1	1	1	1	1	1	1	2	
Semester No	IV		CO2	2	1	1	2	2	2	2	2	1	1	2	1	
Teacher Name	S.B.Gandhale		CO3	2	1	2	1	1	2	1	1	2	1	2	2	
Course Outcomes			CO4	1	2	2	1	1	2	2	1	1	1	2	1	
	CO1	Upon successful completion of this course, students : □ Will have the knowledge and skills to explain the concepts and language of differential geometry and its role in modern mathematics	CO5													
	CO2	Students can apply differential geometry techniques to specific research problems in mathematics or other fields	Average	1.75	1.50	1.75	1.25	1.25	1.75	1.50	1.25	1.25	1.00	1.75	1.25	1.50
	CO3	Students will be able to compute quantities of geometric interest such as integral curves, geodesics, orientation .														

	CO4	Students can understand the topic curvature which helps student for understanding the shape of curve and surfaces.
	CO5	

Class		M.Sc.II	Course Outcomes	Program Outcomes										PSOs		
Subject Code	MT-803			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
Subject Name	Fourier Series and Boundary Value Problems		CO1	2	1	1	1	2	1	1	1	1	2	2	2	1
Semester No	IV		CO2	2	1	1	2	1	2	2	1	2	2	1	2	1
Teacher Name	R.R.Devadhe		CO3	1	1	2	3	1	2	1	1	2	2	1	2	1
Course Outcomes			CO4	3	2	1	3	3	2	1	1	1	2	2	3	1
	CO1	Upon successful completion of this course, students will be able : □ To understand the Fourier series representation of periodic functions.	CO5													
	CO2	To provide standard method for solving differential equations.	Average	2.00	1.25	1.25	2.25	1.75	1.75	1.25	1.00	1.50	2.00	1.50	2.25	1.00
	CO3	To demonstrate how differential equation can be useful in many types of problems likes heat equations ,wave equations.														
	CO4	To understand how the wave and diffusion partial differential equations can be used to model certain systems.														
	CO5															

Class		M.Sc.II	Course Outcomes	Program Outcomes										PSOs		
Subject Code	MT-804			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
Subject Name	Lattice Theory		CO1	1	2	2	1	1	1	1	1	1	1	1	1	2
Semester No	IV		CO2	2	1	1	2	2	2	2	2	2	2	2	2	2
Teacher Name	R.R.Devadhe		CO3	2	1	2	1	1	2	2	1	2	1	2	2	2
Course Outcomes			CO4	1	2	1	1	2	2	2	1	1	1	1	1	1
	CO1	Upon successful completion of this course, students will be able : □ Recognize lattices, complete ordered sets and their varieties,	CO5													
	CO2	Student Know the standard tools of lattice theory,	Average	1.50	1.50	1.50	1.25	1.50	1.75	1.75	1.25	1.50	1.25	1.50	1.50	1.75
	CO3	They Know the main representation theorems of lattices.														
	CO4	Students make use all the above both inside the theory and applications.														
	CO5															

Class		M.Sc.II	Course Outcomes	Program Outcomes										PSOs		
Subject Code	MT-810			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
Subject Name	Applied Mathematics (Coding Theory)		CO1	1	2	1	1	2	1	1	1	1	1	2	1	
Semester No	IV		CO2	2	1	1	3	1	3	2	3	2	2	3	2	3
Teacher Name	A.E.Lagad		CO3	1	1	2	1	1	2	1	1	3	2	1	1	2
Course Outcomes			CO4	2	2	2	1	2	2	1	1	1	1	2	1	

	CO1	Upon successful completion of this course : Knowledge. The student has knowledge of properties of and algorithms for coding and decoding of linear block codes, cyclic codes and convolution codes. The student has an overview of arithmetic in finite fields, linear algebra over finite fields, and rings of power series.	CO5														
	CO2	Skills. The student masters arithmetic in finite fields and linear algebra over finite fields. The student is able to apply various algorithms and techniques for coding and decoding.	Average	1.50	1.50	1.50	1.50	1.50	2.00	1.25	1.50	1.75	1.50	1.50	1.75	1.75	
	CO3	Students Understand and explain the basic concepts of information theory,source coding, channel and channel capacity, channel coding and relation among them.															
	CO4	They describe the real life applications based on the fundamental theory.															
	CO5																

CO-PO Mapping

		Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
FY	FY	1 MTUT111	2.00	1.25	1.25	2.25	1.75	1.75	1.25	1.00	1.50	2.00
		2 MTUT112	1.50	1.50	1.50	2.25	2.00	1.75	1.00	1.00	1.50	1.50
		3 MTUT113	1.50	1.50	1.50	1.50	1.50	2.00	1.25	1.50	1.75	1.50
		4 MTUT114	1.75	1.75	1.75	1.25	1.75	2.00	1.50	1.50	1.50	1.25
		5 MTUT115	1.50	1.50	1.50	1.25	1.50	1.75	1.75	1.25	1.50	1.25
		6 MTUT 121	1.50	1.75	1.50	1.25	1.75	1.75	1.75	1.25	1.50	1.50
		7 MTUT 122	1.75	1.50	1.75	1.25	1.25	1.75	1.50	1.25	1.25	1.00
		8 MTUT 123	1.67	1.33	1.67	1.33	1.33	2.00	1.33	1.33	1.67	1.00
		9 MTUT 124	1.50	1.50	2.00	1.50	1.25	1.75	1.50	1.25	1.25	1.00
		10 MTUT 125	1.50	1.25	1.50	1.25	1.25	1.50	1.50	1.25	1.25	1.25
SY	SY	1 MT-701	1.50	1.50	1.75	1.00	1.25	1.50	1.50	1.25	1.25	1.25
		2 MT-702	1.75	1.50	1.75	1.25	1.25	1.75	1.50	1.25	1.25	1.00
		3 MT-703	1.67	1.33	1.67	1.33	1.33	2.00	1.67	1.33	1.33	1.00
		4 MT-704	1.50	1.25	1.75	1.25	1.25	1.50	1.50	1.25	1.25	1.25
		5 MT-710	1.50	1.50	1.50	1.25	1.50	1.75	1.75	1.25	1.50	1.25
		6 MT-801	1.50	1.50	1.50	2.25	2.00	1.75	1.00	1.00	1.50	1.50
		7 MT-802	1.75	1.50	1.75	1.25	1.25	1.75	1.50	1.25	1.25	1.00
		8 MT-803	2.00	1.25	1.25	2.25	1.75	1.75	1.25	1.00	1.50	2.00
		9 MT-804	1.50	1.50	1.50	1.25	1.50	1.75	1.75	1.25	1.50	1.25
		10 MT-810	1.50	1.50	1.50	1.50	1.50	2.00	1.25	1.50	1.75	1.50

CO-PO ATTAINMENT

PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
0.61333	0.38333	0.38333	0.69	0.53667	0.53667	0.38333	0.30667	0.46	0.61333
0.3	0.3	0.3	0.45	0.4	0.35	0.2	0.2	0.3	0.3
0.3	0.3	0.3	0.3	0.3	0.4	0.25	0.3	0.35	0.3
0.53667	0.53667	0.53667	0.383333333	0.53667	0.61333	0.46	0.46	0.46	0.38333
0.62	0.62	0.62	0.516666667	0.62	0.72333	0.72333	0.51667	0.62	0.51667
1.5	1.75	1.5	1.25	1.75	1.75	1.75	1.25	1.5	1.5
0.72333	0.62	0.72333	0.516666667	0.51667	0.72333	0.62	0.51667	0.51667	0.41333
0.86667	0.69333	0.86667	0.693333333	0.69333	1.04	0.69333	0.69333	0.86667	0.52
0.78	0.78	1.04	0.78	0.65	0.91	0.78	0.65	0.65	0.52
0.78	0.65	0.78	0.65	0.65	0.78	0.78	0.65	0.65	0.65
1.18	1.18	1.37667	0.786666667	0.98333	1.18	1.18	0.98333	0.98333	0.98333
0.91	0.78	0.91	0.65	0.65	0.91	0.78	0.65	0.65	0.52
0.33333	0.26667	0.33333	0.266666667	0.26667	0.4	0.33333	0.26667	0.26667	0.2
0.46	0.38333	0.53667	0.383333333	0.38333	0.46	0.46	0.38333	0.38333	0.38333
0.46	0.46	0.46	0.383333333	0.46	0.53667	0.53667	0.38333	0.46	0.38333
1.02	1.02	1.02	1.53	1.36	1.19	0.68	0.68	1.02	1.02
1.75	1.5	1.75	1.25	1.25	1.75	1.5	1.25	1.25	1
2	1.25	1.25	2.25	1.75	1.75	1.25	1	1.5	2
1.18	1.18	1.18	0.983333333	1.18	1.37667	1.37667	0.98333	1.18	0.98333
1.5	1.5	1.5	1.5	1.5	2	1.25	1.5	1.75	1.5

Percentage CO-PO ATTAINMENT

PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
30.6667	30.6667	30.6667	30.6667	30.6667	30.6667	30.6667	30.6667	30.6667	30.6667
20	20	20	20	20	20	20	20	20	20
20	20	20	20	20	20	20	20	20	20
30.6667	30.6667	30.6667	30.6667	30.6667	30.6667	30.6667	30.6667	30.6667	30.6667
41.3333	41.3333	41.3333	41.3333	41.3333	41.3333	41.3333	41.3333	41.3333	41.3333
100	100	100	100	100	100	100	100	100	100
41.3333	41.3333	41.3333	41.3333	41.3333	41.3333	41.3333	41.3333	41.3333	41.3333
52	52	52	52	52	52	52	52	52	52
52	52	52	52	52	52	52	52	52	52
52	52	52	52	52	52	52	52	52	52
78.6667	78.6667	78.6667	78.6667	78.6667	78.6667	78.6667	78.6667	78.6667	78.6667
52	52	52	52	52	52	52	52	52	52
20	20	20	20	20	20	20	20	20	20
30.6667	30.6667	30.6667	30.6667	30.6667	30.6667	30.6667	30.6667	30.6667	30.6667
30.6667	30.6667	30.6667	30.6667	30.6667	30.6667	30.6667	30.6667	30.6667	30.6667
68	68	68	68	68	68	68	68	68	68
100	100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100	100
78.6667	78.6667	78.6667	78.6667	78.6667	78.6667	78.6667	78.6667	78.6667	78.6667
100	100	100	100	100	100	100	100	100	100

CO-PSO MAPPING

	Course	PSO1	PSO2	PSO3
1	MTUT111	1.50	2.25	1.00
2	MTUT112	1.25	1.50	1.50
3	MTUT113	1.50	1.75	1.75
4	MTUT114	1.25	1.50	1.75
5	MTUT115	1.50	1.50	1.75
6	MTUT 121	2.00	1.75	1.75
7	MTUT 122	1.75	1.25	1.50
8	MTUT 123	2.00	1.33	1.33
9	MTUT 124	1.50	1.25	1.25
10	MTUT 125	1.50	1.25	1.25
1	MT-701	1.50	1.50	1.50
2	MT-702	1.75	1.25	1.50
3	MT-703	2.00	1.33	1.33
4	MT-704	1.75	1.25	1.50
5	MT-710	1.50	1.50	1.75
6	MT-801	1.25	1.50	1.50
7	MT-802	1.75	1.25	1.50
8	MT-803	1.50	2.25	1.00
9	MT-804	1.50	1.50	1.75
10	MT-810	1.50	1.75	1.75

CO-PSO ATTAINMENT

	Course	PSO1	PSO2	PSO3
	MTUT111	0.46	0.69	0.30667
	MTUT112	0.25	0.3	0.3
	MTUT113	0.3	0.35	0.35
	MTUT114	0.38333	0.46	0.53667
	MTUT115	0.62	0.62	0.72333
	MTUT 121	2	1.75	1.75
	MTUT 122	0.72333	0.51667	0.62
	MTUT 123	1.04	0.69333	0.69333
	MTUT 124	0.78	0.65	0.65
	MTUT 125	0.78	0.65	0.65
	MT-701	1.18	1.18	1.18
	MT-702	0.91	0.65	0.78
	MT-703	0.4	0.26667	0.26667
	MT-704	0.53667	0.38333	0.46
	MT-710	0.46	0.46	0.53667
	MT-801	0.85	1.02	1.02
	MT-802	1.75	1.25	1.5
	MT-803	1.5	2.25	1
	MT-804	1.18	1.18	1.37667
	MT-810	1.5	1.75	1.75

Percentage CO-PSO ATTAINMENT

	Course	PSO1	PSO2	PSO3
	MTUT111	30.6667	30.6667	30.6667
	MTUT112	20	20	20
	MTUT113	20	20	20
	MTUT114	30.6667	30.6667	30.6667
	MTUT115	41.3333	41.3333	41.3333
	MTUT 121	100	100	100
	MTUT 122	41.3333	41.3333	41.3333
	MTUT 123	52	52	52
	MTUT 124	52	52	52
	MTUT 125	52	52	52
	MT-701	78.6667	78.6667	78.6667
	MT-702	52	52	52
	MT-703	20	20	20
	MT-704	30.6667	30.6667	30.6667
	MT-710	30.6667	30.6667	30.6667
	MT-801	68	68	68
	MT-802	100	100	100
	MT-803	100	100	100
	MT-804	78.6667	78.6667	78.6667
	MT-810	100	100	100

FY

SY