

<b>Academic Year</b>	<b>2022-23</b>
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**B.P.H.E. Society's  
Ahmednagar College, Ahmednagar  
Internal Quality Assurance Cell  
CO, PO, and PSO Attainment Sheet**

<b>Department Name</b>	<b>Mathematics</b>
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<b>Program Name</b>	<b>B.Sc.</b>
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<b>Program Outcomes(PO)</b>
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<b>PO1</b>	Promotion of thinking
<b>PO2</b>	Confidence
<b>PO3</b>	Problem solving
<b>PO4</b>	Understanding Concepts
<b>PO5</b>	Development of writing, listening skills
<b>PO6</b>	Group Discussion
<b>PO7</b>	Learnng values from teachers
<b>PO8</b>	Skill of team work.
<b>PO9</b>	
<b>PO10</b>	
<b>PO11</b>	
<b>PO12</b>	

<b>Program Specific Outcome(PSO)</b>
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<b>PSO1</b>	To enable the students to cultivate a mathematical way of thinking, that is making conjectures, verifying them with
<b>PSO2</b>	To enable the students to quantify their experiences in other subjects they study.
<b>PSO3</b>	To enable the students to study mathematics for themselves.

<b>Academic Year :</b>	<b>2022-23</b>
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Class		F.Y.B.Sc.	Course Outcomes	Program Outcomes								PSOs			
Subject Code	Subject Name	Semester No		Teacher Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
MT-112	Calculus-I	1	Mr.S.A.Ghule	CO1	1	2	1	1	2	1	1	2	2	1	2
				CO2	0	1	2	1	2	1	1	2	2	1	1
				CO3	1	2	1	1	2	1	2	1	1	2	1
				CO4											
	CO1	Be able to recognize odd, even, periodic, increasing, decreasing functions		CO5											
	CO2	Understand the operation of composition of functions	Average		0.67	1.67	1.33	1.00	2.00	1.00	1.33	1.67	1.67	1.33	1.33
	CO3	Be able to calculate limits by substitution and by eliminating zero denominators													
	CO4														
	CO5														

Class		F.Y.B.Sc.	Course Outcomes	Program Outcomes								PSOs			
Subject Code	Subject Name	Semester No		Teacher Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
MT-111	Algebra	1	Mr.A.E.Lagad	CO1	1	2	1	2	2	1	2	2	1	1	2
				CO2	0	1	2	1	2	1	1	1	2	2	1
				CO3	1	2	1	1	2	1	2	1	1	1	2
				CO4	1	1	2	1	2	1	1	1	1	2	1
	CO1	Prove results involving divisibility and greatest common divisors		CO5											
	CO2	To learn applications of Modular Arithmetics	Average		0.75	1.50	1.50	1.25	2.00	1.00	1.50	1.25	1.25	1.50	1.50
	CO3	Apply Euler-Fermat's Theorem to prove relations involving prime numbers													

	CO4	To learn polynomial addition, subtraction, division, multiplication, roots of polynomials
	CO5	

Class		F.Y.B.Sc.	Course Outcomes	Program Outcomes								PSOs		
Subject Code	MT-122			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
Subject Name	Calculus-II		CO1	2	2	1	1	2	1	1	2	1	2	1
Semester No	2		CO2	0	1	1	1	2	2	1	2	2	1	1
Teacher Name	Mr. S.A. Ghule		CO3	1	1	1	1	2	1	2	1	1	2	1
Course Outcomes			CO4	2	1	1	2	1	1	2	1	2	1	0
	CO1	Be able to calculate limits at infinity of rational functions	CO5											
	CO2	Be able to calculate limits in indeterminate forms by a repeated use of l'Hopital's rule	Average	1.25	1.25	1.00	1.25	1.75	1.25	1.50	1.50	1.50	1.50	0.75
	CO3	Be able to use derivatives to find intervals on which the given function is increasing or decreasing												
	CO4	Be able to calculate limits at infinity of rational functions												
	CO5													

Class		F.Y.B.Sc.	Course Outcomes	Program Outcomes								PSOs		
Subject Code	MT-121			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
Subject Name	Analytical Geometry		CO1	1	1	1	1	2	1	1	2	2	1	2
Semester No	2		CO2	0	1	2	1	2	1	1	1	2	1	2
Teacher Name	Mr. A.E.Lagad		CO3	1	2	1	1	2	1	1	1	2	2	2
Course Outcomes			CO4	2	1	1	2	1	2	1	2	1	2	1
	CO1	To learn the concept of Transformation, translation and reflection	CO5											
	CO2	Used cut-out shapes as a means to develop the mental transformation of geometric shapes.	Average	1.00	1.25	1.25	1.25	1.75	1.25	1.00	1.50	1.75	1.50	1.75

	CO3	Perform translations and rotations of the coordinate axes to eliminate certain terms from equations.
	CO4	Students will be able to find nature of general conics
	CO5	

<b>Academic Year :</b>	<b>2022-23</b>
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Class		S.Y.B.Sc.	Course Outcomes	Program Outcomes								PSOs			
Subject Code	Subject Name	Semester No		Teacher Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
MT-231	Calculus of several variables	3	Mr.R.R.Devadhe	CO1	2	1	2	1	2	1	2	0	1	1	1
				CO2	1	2	1	1	1	2	2	1	2	1	1
				CO3	1	2	2	1	2	2	2	1	2	2	1
				CO4	1	1	2	2	2	1	2	2	1	2	2
	CO1	Identify trigonometric functions and their features		CO5											
	CO2	Interpret the epsilon-delta definition of a limit		Average	1.25	1.50	1.75	1.25	1.75	1.50	2.00	1.00	1.50	1.50	1.25
	CO3	Interpret the derivative of a function at a point													
	CO4	Identify extrema and critical points of a function													
	CO5														

Class		S.Y.B.Sc.	Course Outcomes	Program Outcomes								PSOs			
Subject Code	Subject Name	Semester No		Teacher Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
MT-232(A)	Numerical Methods	3	Mr.S.A.Ghule	CO1	1	2	2	2	2	1	2	0	2	1	2
				CO2	1	1	1	1	1	1	2	1	2	1	1
				CO3	2	2	2	1	2	2	2	2	2	2	1
				CO4	1	1	1	1	2	1	2	1	1	1	2
	CO1	Students will able to find solution of algebraic and transcendental equations		CO5											
	CO2	Students will able to learn the concept of interpolation		Average	1.25	1.50	1.50	1.25	1.75	1.25	2.00	1.00	1.75	1.25	1.50

	CO3	To learn the concept of numerical differenytiation and integration.
	CO4	Numerical solution of first order ordinary differential equation.
	CO5	

Class		S.Y.B.Sc.	Course Outcomes	Program Outcomes								PSOs			
Subject Code	MT-241	Subject Name		Linear Algebra	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
Semester No	4	Teacher Name	Mr.A.E.Lagad	CO1	2	1	2	1	2	1	2	0	1	1	2
Course Outcomes			CO2	1	2	1	1	1	2	2	1	21	1	1	
	CO1	Provide an axiomatic description of an abstract vector space	CO3	1	1	2	1	2	2	2	1	2	2	1	
	CO2	Given a linear transformation and bases, find a matrix representation for the linear transformation	CO4	2	1	1	2	1	2	2	1	1	1	1	
	CO3	Understand rank-nullity theorem and its application	CO5												
	CO4	Find the eigenvalues and eigenvectors of a matrix	Average	1.50	1.25	1.50	1.25	1.50	1.75	2.00	0.75	6.25	1.25	1.25	
	CO5														

Class		S.Y.B.Sc.	Course Outcomes	Program Outcomes								PSOs			
Subject Code	MT-242(A)	Subject Name		Vector Calculus	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
Semester No	4	Teacher Name	Mr.S.B.Gandhale	CO1	2	1	2	2	2	1	1	0	2	1	2
Course Outcomes			CO2	1	2	1	1	1	2	2	1	2	1	1	
	CO1	Calculate areas and volumes using double and triple integrals.	CO3	2	1	2	2	2	1	2	2	1	2	1	
			CO4												
			CO5												

	CO2	Compute curve and surface integrals, and use them to calculate lengths, areas and volumes.	Average	1.67	1.33	1.67	1.67	1.67	1.33	1.67	1.00	1.67	1.33	1.33
	CO3	Use differential calculus for computing tangential plane and normal on surface and in optimization problems of (local) extremes of multivariable functions.												
	CO4													
	CO5													

<b>Academic Year :</b>	<b>2022-23</b>
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Class		Course Outcomes	Program Outcomes								PSOs		
Subject Code	Subject Name		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
MT-351	Metric Spaces	CO1	1	2	1	2	1	2	2	2	2	1	1
5	Mrs.Kale P.R.	CO2	1	1	1	2	1	2	1	2	2	2	2
		CO3	2	1	2	2	1	1	2	2	2	2	1
		CO4	1	2	1	2	1	2	1	2	2	2	1
		CO5											
		Average	1.25	1.50	1.25	2.00	1.00	1.75	1.50	2.00	2.00	1.75	1.25
	CO1	To deal with various examples of metric spaces											
	CO2	Have some familiarity with continuous maps											
	CO3	To work with compact sets in Euclidean space											
	CO4	To work with completeness											
	CO5												

Class		Course Outcomes	Program Outcomes								PSOs		
Subject Code	Subject Name		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
T.Y.B.Sc.	Real Analysis-I	CO1	1	2	2	2	2	1	2	2	1	1	2
5	Mr.S.A.Ghule	CO2	1	2	1	1	1	2	1	1	2	2	1
		CO3	1	1	1	2	2	1	2	2	1	1	2
		CO4											
		CO5											
		Average	1.00	1.67	1.33	1.67	1.67	1.33	1.67	1.67	1.33	1.33	1.67
	CO1	To explain the completeness of a system of real numbers: a least upper bound, a greatest lower bound											
	CO2	To elaborate on the topological concepts of the real numbers: open sets, closed sets, accumulation points, closure, open covers, compact sets.											
	CO3	To Justify the convergence/divergence of a given number series											
	CO4												
	CO5												



Class		T.Y.B.Sc.	Course Outcomes	Program Outcomes								PSOs		
Subject Code	MT-353	PO1		PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	
Subject Name	Group Theory	CO1	2	2	2	1	1	1	2	1	2	1	1	
Semester No	5	CO2	1	1	1	2	2	2	1	2	2	2	2	
Teacher Name	Mr.A.E.Lagad	CO3	1	1	1	1	1	1	1	1	1	1	1	
Course Outcomes		CO4	1	1	1	2	2	1	1	2	1	2	2	
	CO1	To demonstrate when a binary algebraic structure forms a group	CO5											
	CO2	To determine possible subgroups of a group	Average	1.25	1.25	1.25	1.50	1.50	1.25	1.25	1.50	1.50	1.50	
	CO3	To Identify cyclic subgroups and their generators												
	CO4	Explain group and subgroup orders using Lagrange's theorem												
	CO5													

Class		T.Y.B.Sc.	Course Outcomes	Program Outcomes								PSOs		
Subject Code	MT-354	PO1		PO2	PO3	po4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	
Subject Name	Ordinary differential equations	CO1	2	2	1	2	1	2	2	1	1	1	2	
Semester No	5	CO2	1	1	1	2	1	2	1	2	2	2	2	
Teacher Name	Mr.S.A.Ghule	CO3	2	1	2	1	1	1	2	2	1	2	1	
Course Outcomes		CO4	1	1	1	1	1	2	1	1	1	1	2	
	CO1	Distinguish between linear, nonlinear, partial and ordinary differential equations.	CO5											
	CO2	State the basic existence theorem for 1st order ODE's and use the theorem to determine a solution interval.	Average	1.50	1.25	1.25	1.50	1.00	1.75	1.50	1.50	1.25	1.50	1.75
	CO3	Recognize and solve a linear differential equation by use of an integrating factor												
	CO4	To find particular solutions to initial value problems												
	CO5													

Class		T.Y.B.Sc.	Course Outcomes	Program Outcomes								PSOs		
Subject Code	MT-355(A)	PO1		PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	
Subject Name	Operation reseach	CO1	2	2	1	2	2	2	2	2	2	1	1	
Semester No	5	CO2	1	1	1	1	1	1	1	1	2	2	2	
Teacher Name	Mrs.S.B.Karale	CO3	2	2	2	2	2	1	2	2	2	2	1	
Course Outcomes		CO4												
	CO1	Apply the techniques used in operations research to solve real life problem in minimization	CO5											
	CO2	Industry select an optimum solution with profit maximization	Average	1.67	1.67	1.33	1.67	1.67	1.33	1.67	1.67	2.00	1.67	1.33

	CO3	Have complete understand of the significant role operation research play in mining
	CO4	
	CO5	

Class		T.Y.B.Sc.	Course Outcomes	Program Outcomes								PSOs		
Subject Code	MT-356(A)			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
Subject Name	Machine Learning-I		CO1	1	2	1	2	1	2	2	2	2	1	1
Semester No	6		CO2	1	1	1	2	1	2	1	2	2	2	2
Teacher Name	Mr.U.M.Patare		CO3	2	1	2	2	1	1	2	2	2	2	1
Course Outcomes			CO4	1	2	1	2	1	2	1	2	2	2	1
	CO1	To introduce students to the basic concets and technique of machine learning	CO5											
	CO2	To become familiar with discover and visualize data to gain insights	Average	1.25	1.50	1.25	2.00	1.00	1.75	1.50	2.00	2.00	1.75	1.25
	CO3	To become familiar with fine turning the model grid,random search												
	CO4	To develop the ability to write database application in python.												
	CO5													

Class		T.Y.B.Sc.	Course Outcomes	Program Outcomes								PSOs		
Subject Code	MT-361			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
Subject Name	Complex Analysis		CO1	1	2	1	1	1	2	1	1	1	2	1
Semester No	6		CO2	1	1	1	2	2	2	1	2	2	1	2
Teacher Name	Mr S.A.Ghule		CO3	2	2	2	1	1	1	2	1	1	2	1
Course Outcomes			CO4											
	CO1	Students will able to represent complex numbers algebraically and geometrically	CO5											
	CO2	Students will able to apply the concept and consequences of analyticity and the Cauchy-Riemann equations and of results on harmonic and entire functions including the fundamental theorem of algebra	Average	1.33	1.67	1.33	1.33	1.33	1.67	1.33	1.33	1.33	1.67	1.33
	CO3	To analyze sequences and series of analytic functions and types of convergence												
	CO4													
	CO5													

Class		T.Y.B.Sc.	Course Outcomes	Program Outcomes								PSOs		
Subject Code	MT-362			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
Subject Name	Real Analysis-II		CO1	2	2	1	1	1	2	2	2	2	1	1
Semester No	6		CO2	1	1	1	2	2	2	1	1	2	2	2
Teacher Name	Mr.S.B.Gandhale		CO3	2	1	2	2	1	1	2	1	2	1	1
Course Outcomes			CO4	1	2	1	1	2	2	1	1	1	2	1
	CO1	Students will able to learn Riemann integrable and Riemann sums	CO5											
	CO2	To Prove a theorem about Riemann sums and Riemann integrals	Average	1.50	1.50	1.25	1.50	1.50	1.75	1.50	1.25	1.75	1.50	1.25
	CO3	Knowledge of some simple techniques for testing the convergence of sequences and series of functions, and confidence in applying them.												
	CO4													
	CO5													

Class		T.Y.B.Sc	Course Outcomes	Program Outcomes								PSOs		
Subject Code	MT-363			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
Subject Name	Ring Theory		CO1	1	2	1	2	1	2	2	1	2	1	1
Semester No	6		CO2	1	1	1	2	2	2	1	1	1	2	2
Teacher Name	Mr.A.E.Lagad		CO3	2	1	2	2	1	1	2	2	2	2	2
Course Outcomes			CO4											
	CO1	Students will able To write precise and accurate mathematical objects in ring theory	CO5											
	CO2	students will ableto understand the concepts like ideals and quotient rings	Average	1.33	1.33	1.33	2.00	1.33	1.67	1.67	1.33	1.67	1.67	1.67
	CO3	Students will able to understand the concept of ring homomorphism.												
	CO4													
	CO5													

Class		T.Y.B.Sc.	Course Outcomes	Program Outcomes								PSOs		
Subject Code	MT-364			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
Subject Name	Partial Differentail equation Equations		CO1	1	2	1	2	1	1	2	1	1	1	
Semester No	6		CO2	2	1	1	2	2	2	1	1	2	2	
Teacher Name	Mr.S.A.Ghule		CO3	2	1	2	2	1	1	2	2	1	2	

Course Outcomes			CO4	1	2	1	2	2	2	1	1	1	1	2
CO1	To explain the concepts and language of partial differential equations	CO5												
CO2	To understand the difference between ordinary & partial differential equation	Average	1.50	1.50	1.25	2.00	1.50	1.50	1.50	1.25	1.25	1.50	1.50	
CO3	To classify the partial differential equations													
CO4	Solve the partial differential equation using charpits method, Jacobis method													
CO5														

Class	T.Y.B.Sc.	Course Outcomes	Program Outcomes								PSOs		
Subject Code	MT-365(A)		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
Subject Name	Optimization Technique	CO1	1	2	1	1	1	2	2	1	1	1	1
Semester No	6	CO2	1	2	2	2	2	2	1	2	2	2	2
Teacher Name	Mrs.S.B.Karale	CO3	2	1	2	1	2	1	2	1	1	2	1
Course Outcomes		CO4	1	2	1	1	2	2	1	1	1	1	1
CO1	Students will able to formulate optimization problems	CO5											
CO2	To Understand and apply the concept of optimality criteria for various type of optimization problems	Average	1.25	1.75	1.50	1.25	1.75	1.75	1.50	1.25	1.25	1.50	1.25
CO3	To solve various constrained and unconstrained problems in single variable as well as multivariable												
CO4	To apply the methods of optimization in real life situation												
CO5													

Class	T.Y.B.Sc.	Course Outcomes	Program Outcomes								PSOs		
Subject Code	MT-366(A)		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
Subject Name	Machine Learning-II	CO1	1	2	1	2	1	2	2	2	2	1	1
Semester No	6	CO2	1	1	1	2	1	2	1	2	2	2	2
Teacher Name	Mr.U.M.Patare	CO3	2	1	2	2	1	1	2	2	2	2	1
Course Outcomes		CO4	1	2	1	2	1	2	1	2	2	2	1
CO1	To help students learn, understand,practice machine learning approches	CO5											
CO2	To specify what the student will able perform python program	Average	1.25	1.50	1.25	2.00	1.00	1.75	1.50	2.00	2.00	1.75	1.25
CO3	To implement machine learning technique that are suitable for application under consideration.												

	CO4	
	CO5	

<b>CO-PO Mapping</b>
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		Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
FY	FY	1 MT-112	0.67	1.67	1.33	1.00	2.00	1.00	1.33	1.67
		2 MT-111	0.75	1.50	1.50	1.25	2.00	1.00	1.50	1.25
		3 MT-122	1.25	1.25	1.00	1.25	1.75	1.25	1.50	1.50
		4 MT-121	1.00	1.25	1.25	1.25	1.75	1.25	1.00	1.50
SY	SY	1 MT-231	1.25	1.50	1.75	1.25	1.75	1.50	2.00	1.00
		2 MT-232(A)	1.25	1.50	1.50	1.25	1.75	1.25	2.00	1.00
		3 MT-241	1.50	1.25	1.50	1.25	1.50	1.75	2.00	0.75
		4 MT-242(A)	1.67	1.33	1.67	1.67	1.67	1.33	1.67	1.00
TY	TY	1 MT-351	1.25	1.50	1.25	2.00	1.00	1.75	1.50	2.00
		2 MT-352	1.00	1.67	1.33	1.67	1.67	1.33	1.67	1.67
		3 MT-353	1.25	1.25	1.25	1.50	1.50	1.25	1.25	1.50
		4 MT-354	1.50	1.25	1.25	1.50	1.00	1.75	1.50	1.50
		5 MT-355(A)	1.67	1.67	1.33	1.67	1.67	1.33	1.67	1.67
		6 MT-356(A)	1.25	1.50	1.25	2.00	1.00	1.75	1.50	2.00
		7 MT-361	1.33	1.67	1.33	1.33	1.33	1.67	1.33	1.33
		8 MT-362	1.50	1.50	1.25	1.50	1.50	1.75	1.50	1.25
		9 MT-363	1.33	1.33	1.33	2.00	1.33	1.67	1.67	1.33
		10 MT-364	1.50	1.50	1.25	2.00	1.50	1.50	1.50	1.25
		11 MT-365(A)	1.25	1.75	1.50	1.25	1.75	1.75	1.50	1.25
		12 MT-366(A)	1.25	1.50	1.25	2.00	1.00	1.75	1.50	2.00

**CO-PO ATTAINMENT**

**Percentage CO-PO ATTAINMENT**

PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
0.346667	0.866667	0.693333	0.52	1.04	0.52	0.693333	0.866667
0.39	0.78	0.78	0.65	1.04	0.52	0.78	0.65
0.65	0.65	0.52	0.65	0.91	0.65	0.78	0.78
0.52	0.65	0.65	0.65	0.91	0.65	0.52	0.78
0.65	0.78	0.91	0.65	0.91	0.78	1.04	0.52
0.65	0.78	0.78	0.65	0.91	0.65	1.04	0.52
0.78	0.65	0.78	0.65	0.78	0.91	1.04	0.39
0.866667	0.693333	0.866667	0.866666667	0.866667	0.693333	0.866667	0.52
0.65	0.78	0.65	1.04	0.52	0.91	0.78	1.04
0.52	0.866667	0.693333	0.866666667	0.866667	0.693333	0.866667	0.866667
0.65	0.65	0.65	0.78	0.78	0.65	0.65	0.78
0.78	0.65	0.65	0.78	0.52	0.91	0.78	0.78
1.4	1.4	1.12	1.4	1.4	1.12	1.4	1.4
1.05	1.26	1.05	1.68	0.84	1.47	1.26	1.68
0.693333	0.866667	0.693333	0.693333333	0.693333	0.866667	0.693333	0.693333
0.78	0.78	0.65	0.78	0.78	0.91	0.78	0.65
0.693333	0.693333	0.693333	1.04	0.693333	0.866667	0.866667	0.693333
0.78	0.78	0.65	1.04	0.78	0.78	0.78	0.65
1.05	1.47	1.26	1.05	1.47	1.47	1.26	1.05
1.05	1.26	1.05	1.68	0.84	1.47	1.26	1.68

PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
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	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	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
84	84	84	84	84	84	84	84
84	84	84	84	84	84	84	84
52	52	52	52	52	52	52	52
52	52	52	52	52	52	52	52
52	52	52	52	52	52	52	52
84	84	84	84	84	84	84	84
84	84	84	84	84	84	84	84

FY
SY
TY

**CO-PSO MAPPING**

	Course	PSO1	PSO2	PSO3
1	MT-112	1.67	1.33	1.33
2	MT-111	1.25	1.50	1.50
3	MT-122	1.50	1.50	0.75
4	MT-121	1.75	1.50	1.75
1	MT-231	1.50	1.50	1.25
2	MT-232(A)	1.75	1.25	1.50
3	MT-241	6.25	1.25	1.25
4	MT-242(A)	1.67	1.33	1.33
1	MT-351	2.00	1.75	1.25
2	MT-352	1.33	1.33	1.67
3	MT-353	1.50	1.50	1.50
4	MT-354	1.25	1.50	1.75
5	MT-355(A)	2.00	1.67	1.33
6	MT-356(A)	2.00	1.75	1.25
7	MT-361	1.33	1.67	1.33
8	MT-362	1.75	1.50	1.25
9	MT-363	1.67	1.67	1.67
10	MT-364	1.25	1.50	1.50
11	MT-365(A)	1.25	1.50	1.25
12	MT-366(A)	2.00	1.75	1.25

**CO-PSO ATTAINMENT**

	Course	PSO1	PSO2	PSO3
	MT-112	0.866667	0.693333	0.693333
	MT-111	0.65	0.78	0.78
	MT-122	0.78	0.78	0.39
	MT-121	0.91	0.78	0.91
	MT-231	0.78	0.78	0.65
	MT-232(A)	0.91	0.65	0.78
	MT-241	3.25	0.65	0.65
	MT-242(A)	0.866667	0.693333	0.693333
	MT-351	1.04	0.91	0.65
	MT-352	0.693333	0.693333	0.866667
	MT-353	0.78	0.78	0.78
	MT-354	0.65	0.78	0.91
	MT-355(A)	1.68	1.4	1.12
	MT-356(A)	1.68	1.47	1.05
	MT-361	0.693333	0.866667	0.693333
	MT-362	0.91	0.78	0.65
	MT-363	0.866667	0.866667	0.866667
	MT-364	0.65	0.78	0.78
	MT-365(A)	1.05	1.26	1.05
	MT-366(A)	1.68	1.47	1.05

**Percentage CO-PSO ATTAINMENT**

	Course	PSO1	PSO2	PSO3
	MT-112	52	52	52
	MT-111	52	52	52
	MT-122	52	52	52
	MT-121	52	52	52
	MT-231	52	52	52
	MT-232(A)	52	52	52
	MT-241	52	52	52
	MT-242(A)	52	52	52
	MT-351	52	52	52
	MT-352	52	52	52
	MT-353	52	52	52
	MT-354	52	52	52
	MT-355(A)	84	84	84
	MT-356(A)	84	84	84
	MT-361	52	52	52
	MT-362	52	52	52
	MT-363	52	52	52
	MT-364	52	52	52
	MT-365(A)	84	84	84
	MT-366(A)	84	84	84