	Department of Mathematics (S.F)												
S No	No. Name of the Course Course Em Activities Focusing on Employability En Activities Focusing on SD Activities Focusing on Skill Outcome												
5.110.		Code				Entrepreneurship		Development					
						2023-2024							
	Major Core VII: Linear	MC2051		Preparation of Quiz Questions on			\Box	Preparation of Quiz Questions on	To introduce the algebraic system of vector Spaces,				
1	Algebra			Basis and Dimension, Rank and				Basis and Dimension, Rank and	inner product spaces and to use the related study in				
				Numry				Numry	various physical applications.				
	Major Core VIII: Real	MC2052	\Box	1.Demonstration on Continuous and			\Box	1.Demonstration on Continuous and	To introduce metric spaces and the concepts of				
	Analysis II			Discontinuous Functions with				Discontinuous Functions with	completeness, continuity, connectedness and				
2				2 Solving exercise problems in				2 Solving exercise problems in	studies				
				Uniform Continuity of real valued				Uniform Continuity of real valued	studies.				
				functions, Connected Metric Spaces	_			functions, Connected Metric Spaces					
	Major Core IX: Compter	MC2053			${\bf \bigtriangledown}$	Assignment on		Preparation of multiple choice	To provide suitable and effective numerical				
3	Methods					Operators, Conditional		Relational Operators	values of certain raw data and to lay foundation of				
						Operators			programming techniques to solve mathematical				
									problems.				
4	Major - Project	MC2054							To develop the attitude of studying a topic in depth				
	Elective I: a) Graph	MC2055		Group discussion on Cycles in graphs,				Online Quiz application of Eulerian	To introduce graphs and the concepts of				
5	Theory		-	Cut-vertices and cut-edges			-	and Hamiltonian graphs	connectedness, matchings, planarity and				
									domination and to apply these concepts in research.				
	Elective I: b) Fuzzy	MC2056		Open book test on Fuzzy Systems and				Group discussion on types of fuzzy	To understand fuzzy concepts of sets and				
6	Mathematics			Genetic Algorithm				sets	operations and to apply the fuzzy concepts in image				
0									processing, machine learning and artificial				
	Elective I. e) Object	MC2057		Hands on training on commiting and					intelligence.				
7	Oriented Programming	NIC2037		linking on More statements. Creating	Ś		Ľ		and to enhance iob opportunities.				
	with C++			the source file									
	Major Core X: Complex	MC2061		Solving problems on Singularities,				Group Discussion on Cauchy's	To introduce the basic concepts of differentiation				
8	Analysis			Residues				integral formula, Maximum modulus	and integration of complex functions and to apply the related concepts in higher studies				
	Major Core XI:	MC2062					\Box	Preparation of Quiz questions on	To visualize the application of mathematics in				
9	Mechanics							Problems on friction, Projectiles	physical sciences and to develop the capacity to				
	Mile Cen VII Newton	MC2062		Denotes Meltine la transmission					predict the effects of force and motion.				
10	Theory	MC2063		on Basic properties of congruence				congruences	concepts in Number Theory and to apply these				
10	Theory			Linear congruences				2.Assignment on Division Algorithm	principles in other branches of Mathematics.				
	Major Core XIII: Linear	MC2064		Solve the transportational problems,				Solve the problems in Simplex	To formulate real life problems into mathematical				
11	Programming			Mathematical formulation of				method, Big M method	problems and to solve life oriented and decision				
				luansportation problems					function.				
	Elective II: a) Astronomy	MC2065		Peer teaching on Perpetual Day and			\Box	Solve problems on maximum and mini	To introduce space science and to familiarize the				
12				Perpetual night, Terrestrial latitude					important features of the planets, sun, moon and				
				and longitude					stellar universe and to predict lunar and solar				
									eclipses and study the seasonal changes.				

	Elective II: b)Boolean	MC2066	\square	Creating MCQ on Lattice		\square	Discussing about Partially ordered	To introduce the algebraic structures like lattices
13	Algebra			homomorphism, Modular lattice, The chain conditions			sets, Chain, Upper and lower bounds	and Boolean algebra and to apply these concepts in various branches of Mathematics.
14	Elective II: c) Web Designing with HTML	MC2067		Assignment on Head and Body Sections, Header Sections, Title, Prologue, Links				To understand the importance of the web as a medium of communication and to create an effective web page with graphic design principles.
15	Skill Enhancement Course: Mathematics for Competitive Examinations	SEM203		Solving TNPSC, bank and Railway exam questions.	Assignment on Chain Rule, Time and Work		Solve the problems using shortcut techniques and collection of all formulas	To gain deeper knowledge in differential equations, differentiation and integration of vector functions and to apply the concepts in higher mathematics and physical sciences.
16	Core Course I: Algebraic Structures	MP231CC1		Quiz on Finite abelian groups, Demonstration on Decomposition of Vector space, Seminar on Trace and transpose, Assignment on Linear Transformations			 Quiz on Finite abelian groups Seminar on Trace and transpose 	To introduce the concepts and to develop working knowledge on class equation, solvability of groups and to understand the concepts of finite abelian groups, linear transformations, real quadratic forms.
17	Core Course II: Real Analysis I	MP231CC2		 Demonstration through PPT on Sequences of Functions, Riemann Stieltjes Integrals Quiz Competition on Riemann - Stieltjes Integral, Sequences of Functions 			 Demonstration through PPT on Sequences of Functions, Riemann Stieltjes Integrals Quiz Competition on Riemann - Stieltjes Integral, Sequences of Functions 	To develop strong background on finding solutions to linear differential equations with constant and variable coefficients and also with singular points.
18	Core Course III: Ordinary Differential Equations	MP231CC3		Seminar on Linear equations with constant coefficients, The Legendre equation			Quiz on Topic Linear Equation with variable coefficients-wronskian and linear independence	To develop strong background on finding solutions to linear differential equations with constant and variable coefficients and also with singular points.
19	Elective Course I: a) Number theory and Cryptography	MP231EC1	\bigtriangledown	Assignment on Public key Cryptography, Concepts of public key Cryptography			Discussion on Divisibility and Euclidean algorithm, Congruences	To gain deep knowledge about Number theory and to\o know the concepts of Cryptography.
20	Elective Course I: b) Graph Theory and Applications	MP231EC2		Discussion on Trees, Cut Edges and Bonds, Cut Vertices, Connectivity			Open book test on E uler's Formula, The Five Colour Theorem and Four Colour Conjecture	To help students to understand various parameters of Graph Theory with applications and to stimulate the analytical mind of the students, enable them to acquire sufficient knowledge and skill in the subject that will make them competent in various areas of mathematics.
21	Elective Course I: c) Programming in C++	MP231EC3						To apply mathematical concepts in programming and to create programs and applications.
22	Elective Course II: a) Discrete Mathematics	MP231EC4		 Solving problrms on Linear recurrence relations with constant coefficients Seminar on Solution by the technique of generating functions 	1.Demonstration using powerpoint presentation on the principle of inclusion and exclusion 2.Preparation of multiple choice questions.Permutations and combinations		1.Demonstration using powerpoint presentation on the principle of inclusion and exclusion 2.Preparation of multiple choice questions.Permutations and combinations	To learn the concepts of Permutations, Combinations, Boolean Algebra and Lattices and to motivate the students to solve practical problems using Discrete mathematics.
23	Elective Course II: b) Analytic Number Theory	MP231EC5					Solve the problems in Fuzzy relations	To understand Dirichlet multiplication, a concept which helps clarify inter relationship between various arithmetical functions and to understand some equivalent forms of the prime number theorem.

	Elective Course II: c)	MP231EC6						Assignment on Fuzzy Graphs, Fuzzy	To study about Fuzzy sets and their relations,
	Fuzzy Sets and their							Relations, Fuzzy Logic	Fuzzy graphs, Fuzzy Relations and to gain
24	Applications								knowledge on Fuzzy logic and laws of Fuzzy
									compositions.
	Core Course IV:	MP232CC1		Discussion on finite extension,				1.Quiz on Extension Fields,	To study field extension, roots of polynomials,
	Advanced Algebra		-	algebraic number, roots of polynomial			-	2.Seminar on solvability by radicals	Galois Theory, finite fields, division rings,
25									solvability by radicals and to develop
									computational skill in abstract algebra.
	Core Course V: Real	MP232CC2		1.Peer teaching on Fourier Series and				1.Preparation of MCQ on Fourier	To introduce measure on the real line, Lebesgue
	Analysis II		_	Fourier Integrals, Riemann's				Series and Fourier Integrals	measurability and integrability, Fourier Series and
26				localization theorem,				2.Assignment on Multivariable	Integrals and to get the in-depth study in
				2.Online assignment on Measurable				Differential Calculus	multivariable calculus.
				sets, Measurable Function					
	Core Course VI: Partial	MP232CC3	\Box	Assignment on Boundary Value				1.Assignment on problems on	To formulate and solve different forms of partial
	Differential Equations			Problem, Solution by Separation of				singular integral	differential equations and tolve the related
27				variables				2.Peer teaching on Partial Differential	application-oriented problems.
								Equations with constant coefficients	
	Elective Course III: a)	MP232EC1							To enhance knowledge in mathematical statistics
	Mathematical Statistics								and acquire basic knowledge about various
28									distributions and to understand about mathematical
									expectations, moment generating function
									technique and the Central Limit Theorem.
	Elective Course III: b)	MP232EC2		Analyze the dataset for Health care				1.Installation of R Studio	To equip individuals with the skills to proficiently
	Statistical Data Analysis			and prepare a case study				2.Create a histogram for new voters	analyze data, employ statistical methods, and
29	using R Programming							from the Voter's list	utilize R programming for effective data
									interpretation and decision-making in various fields.
	Elective Course III: c)	MD222EC2			5				To introduce a higher level language $C \mapsto for hands$
	Programming in C	WIF 252EC5	ľ		Ľ		ľ		on experience on computers and Adhere to hest
30	Practical								practices and coding standards in C^{++}
	l'indetical								programming
	Elective Course IV: a)	MP232EC4							To analyze different situations in the industrial/
31	Operations Modeling								business scenario involving limited resources and
									to finding the optimal solution within constraints.
	Elective Course IV: b)	MP232EC5	\square	Group Discussion on function	\square	Discussion on Numpy –	\square	Discussion on Numpy – Array	To familiarize the students with Python
	Mathematical Python			modulus, General expression and		Array creation, Array		creation, Array properties, Indexing	programming for Mathematics and to train them to
32				Comments		properties, Indexing with		with integer Arrays and Boolean	develop programs and create functions for
						integer Arrays and		Arrays.	Mathematics in Python.
						Boolean Arrays.			
	Elective Course IV: c)	MP232EC6							To know the main fundamental principles and
33	Neural Networks								techniques of neural network systems and
									investigate the principal neural network models and
) (Dacaderi							applications.
	Skill Enhancement I –	MP232SE1		Hands on training on basic operations			∣⊻	1. Quiz on Preparation and Analysis	To know about modifying a spreadsheet and
24	Nodeling and			III IVIS excel				oi Quantitative Data	workbook and to understand the concept of data
34	Simulation with Excel							2. Seminar presentation on Presentation of Quantitative and	analysis loois and data analysis for two data sets.
								Presentation of Quantitative and	
1			1				1	Quantative data	

	Core IX: Field Theory	PM2031		1.Group Discussion on finite			\bigtriangledown	1.Demonstration on Wedderburns	To learn in depth the concepts of Field Theory,
25	and Lattices			extension and algebraic extension				Theorem	Galois Theory and Lattices and to pursue research
35				2.Peer teaching Galois groups over the				2.Quiz on Extension Fields	in pure Mathematics.
				rationals, Finite fields					
	Core X: Topology	PM2032		1.Seminar on Separable spaces,				1.Assignment on continuous function	To distinguish spaces by means of simple
36				Countability axioms				2.Seminar on product Topology	topological invariants and to lay the foundation for
50				2.Assignment on Closed sets and					higher studies in Geometry and Algebraic
				Continuous function			_		Topology.
	Core XI: Measure	PM2033		1.Group Discussion on Lebesgue				1.Demonstration using powerpoint	To generalize the concept of integration using
	Theory and Integration			Measure, Outer measure, Measurable				presentation	measures and to develop the concept of analysis in
37				sets				2. Preparation of multiple choice	abstract situations.
				2.Assignment on The Riemann				questions.	
				integral, Differentiation and					
	Elective III: a) Alechanic	DM2024		Integration				1 Dran anotion of Multiple Chains	To goin door be orded as about Number theory and
	Number Theory and	PM2054		Assignment on encryption and			ľ	Questions and conducting Quiz	to study the relation between Number theory and
	Cryptography			deeryption in cryptography				Competitions on public key	Abstract and to know the concents of Cryptography
	Cryptography							cryptosystem and RSA cryptography	Abstract and to know the concepts of cryptography.
38								2.Creating Puzzles using	
								Cryptography.	
	Elective III: b)	PM2035					\square		To understand the stochastic models and to relate
39	Stochastic Process								the models studied to real life probabilistic
									situations.
40	Major: Project	PM20PR					\square		To develop the attitude of studying a topic in depth
	a 197 - 1 - a						_		independently.
	Self Learning Course:	PM20S1							To enhance problem solving skills and to enable
41	Algebra for SET/CSIR-								the students to clear the CSIR - NET/SET Exams.
	NET Exam	DM2041		1 Selvine mehleme en Demeushle				Salua mahlama using Caushula	To import he called on complex for stings and to
	Analysis	PM2041		singularities			ľ	solve problems using Cauchy's	for inpart knowledge on complex functions and to
42	Anarysis			2 Group Discussion on Taylor's					factilitate the study of advanced mathematics.
				theorem Zeros and poles					
	Core XIII: Functional	PM2042		1.Online assignment on Banach				Solving NET/ SET exam questions in	To study the three structure theorems of Functional
	Analysis	1112012		spaces. Hilbert spaces				Functional Analysis	Analysis and to introduce Hilbert Spaces and
43				2.Seminar on Adjoint of an operator,					Operator theory and to enable the students to
				Self adjoint operators					pursue research.
	Core XIV:Operations	PM2043	\Box	Assignment on Elements of the DP			\square	1.Draw arrow network diagrams	To learn optimizing objective functions and to
	Research			Model, Solution of Linear				2.Assignment on the critical path	solve life oriented decision making problems.
44				Programming by Dynamic					
				programming					
	Core XV: Algorithmic	PM2044					\Box	1.Demonstration on Analyze the	To instill knowledge about algorithms and to write
45	Graph Theory							algorithms using PPT	innovative algorithms for graph theoretical
								2. Quiz on Elementary Graph	problems.
		D) (17.15						Algorithms,	
	Elective IV : a)	PM1745	∣⊻	1.Preparation on MCQ on Generating				1.Quiz on Permutations and	To do an advanced study of permutations and
	Combinatorics			functions, Partitions of integers				Combinations	combinations and to solve related real life problems.
46				2. Seminar on Polya's theory of				2. Online Assignment on The	
				counting				Polya's theory of counting	
1		1	1	1	1	I		1 orga o meory or counting	

	Elective IV : b)Coding	PM1746					\Box	1.Assignment on Krawtchouk	To learn the different procedures of coding and
47	Theory							Polynomials, Combinatorial theory	decoding and to avail job opportunities in a number
47								2.Online Quiz on idempotent of a	of detective agencies.
								cyclic code.	
	Self Learning Course:	PM20S2	\Box		\square				To enhance problem solving skills and to enable
48	Analysis for SET/CSIR-								the students to clear the CSIR-NET/SET Exams.
	NET Exam								
	Non Major Elective	MNM201	\Box	1.Assignment on percentage	\Box	Solving problems using	\Box	Solving problems using BODMAS	To develop the quantitative aptitude of the students
49	Course (NME):			2.Solving exercise problem on		BODMAS rule		rule	and to solve problems required for various
	Quantitative Aptitude I			population					competitive examinations.
	Non Major Elective	MNM202	\Box		\Box	Solving problems on	\Box	Solving problems on Compound	To develop the quantitative aptitude of the students
50	Course (NME):					Compound Interest,		Interest, different rates for different	and to solve problems needed for various
50	Quantitative Aptitude II					different rates for		years	competitive examinations.
						different years			
	Major Core III:	MC2031		1.Group study on formation of PDE		Verify Green's, Stoke's		Verify Green's, Stoke's and Gauss	To gain deeper knowledge in differential equations,
51	Differential Equations			2. Solving exercise problem of		and Gauss divergence		divergence theorems, Assignment	differentiation and integration of vector functions
	and Vector Calculus			Charpit method		theorems, Assignment			and to apply the concepts in higher mathematics
									and physical sciences.
	Major Core IV: Real	MC2032		Solve problems in Finite and infinite				1.Brainstorming on various types of	To introduce the primary concepts of sequences
	Analysis I			sets				tests for checking convergent and	and series of real numbers and to develop problem
52								divergent series	solving skills.
								2. Solving problems in supremum,	
								infinimum, convergent and	
								divergent sequence	
	Allied III: Probability	MA2031		1. Solve problems on Probability		1.Solving problems on		Brainstorming on probability, Online	To impart knowledge on the basic concepts of
	Theory and Distributions			Moment generating function		relation between		Quiz	Probability theory and Probability distributions and
				2.Assignment on Fitting of Normal		Binomial and Poisson			to apply the theory in real life situations.
53				distribution by area method and		distribution			
				ordinate method		2. Assignment on the			
						theorem			
	Self-Learning Course:	MC20S1							To develop the interest of self learning in subject
54	Discrete Mathematics I								oriented courses.
	Major Core V: Groups	MC2041		1.Collect the examples of groups				Assignment on Cosets and	To introduce the concepts of Group theory and
55	and Rings		_	2.Group study on normal subgroups			_	Lagrange's theorem, Rings	Ring theory and to gain more knowledge essential
									for higher studies in Abstract Algebra.
	Major Core VI:	MC2042		1.Practice finding the equation of a				Solving problems on direction cosines	To gain deeper knowledge in three dimensional
	Analytical Geometry of 3			plane in different forms					Analytical Geometry 2D and to develop creative
56	Dimensions			2.Assignment on the angle between					thinking, innovation and synthesis of information.
				the lines in which a plane cuts the cone					
	Allied IV: Applied	MA2041		Group discussion on Rank correlation				Problem solving in correlation and	To acquire the knowledge of correlation theory and
57	Statistics							rank correlation	testing hypothesis and to solve research and
			<u> </u>	1					application oriented problems.
	Self-Learning Course:	MC20S2						1.Solving muliple choice questions	To develop the interest of self learning in subject
	Discrete Mathematics II							and analyze problems in NET/SET	oriented courses.
								exam question papers	
58							1	2.Organised National Seminar for	
							1	2 Presentation on basis definitions	
								ord examples through recorded	
								and examples through powerpoint	
1	1		1		1	1	1	and videos	

60	Major Core VII: Linear Algebra Major Core VIII: Real Analysis II Major Core IX:	MC2051 MC2052 MC2053	I.Assignment on Linear independence, rank and nullity 2.Prepare quiz on Bilinear forms, Quadratic forms 3.Group discussion on Modular lattices, Boolean algebra 1.Solving problems on bounded sets 2.Assignment on dense sets		1.Seminar on Newton's	Determine rank and nullity of a vector space, peer review writing 1.Peer teaching on Limit point, Complete metric space 2.Brainstorming on Connectedness and continuity Programming on Basis structure of C	To introduce the algebraic system of Vector Spaces, inner product spaces and to use the related study in various physical applications. To introduce Metric Spaces and the concepts of completeness, continuity, connectedness and compactness and to use these concepts in higher studies. To provide suitable and effective numerical
61	Numerical Methods				2.Open book test on Lagrange's Interpolation formula, Numerical differentiation	programs	nethods, for computing approximate numerical values of certain raw data and to lay foundation of programming techniques to solve mathematical problems.
62	Major - Project	MC2054					To develop the attitude of studying a topic in depth independently.
63	Elective I: a) Graph Theory	MC2055	1.Draw different standard graphs and find degree, cut vertices cycles 2.Assignment on vertex coloring, edge coloring			Quiz on Domination in graphs	To introduce graphs and the concepts of connectedness, matchings, planarity and domination and to apply these concepts in research.
64	Elective I: b) Fuzzy Mathematics	MC2056	 Peer Teaching on Fuzzy Measure, Evidence Theory Brain storming on evidence theory 			1.Describe types of fuzzy sets 2. Assignments on Possibility Theory, Possibility Theory versus Probability Theory	To understand Fuzzy concepts of sets and operations and to apply the Fuzzy concepts in image processing, machine learning and artificial intelligence.
65	Elective I: c) Object Oriented Programming with C++	MC2057	 Assignment on Creating the source file, Compiling and linking Group discussion on Tokens, Keywords, Identifiers and constants 	\Box			To learn and write programmes in C++ Language and to enhance job opportunities.
66	Major Core X: Complex Analysis	MC2061	1.Group discussion on residues 2.Solving the problems of singularities			1. Solve multiple choice questions and NET/ SET exam questions	To introduce the basic concepts of differentiation and integration of Complex functions and to apply the related concepts in higher studies.
67	Major Core XI: Mechanics	MC2062				 Gave basic definitions and examples through powerpoint presentation Explain frictions through models and internal assessement 	To visualize the application of Mathematics in Physical Sciences and to develop the capacity to predict the effects of force and motion.
68	Major Core XII: Number Theory	MC2063	 Solving problems on Diophantine equation Assignment on Basic properties of congruence 			Peer teaching on The greatest common divisor	To introduce the fundamental principles and concepts in Number Theory and to apply these principles in other branches of Mathematics.
					2022-2023		
69	Major Core XIII: Linear Programming	MC2064	Assignment on Two phase method- Phase I, Solving auxiliary LPP using Simplex method			Find the solution of LPP using Simplex method and Big-M Method, Online Quiz	To formulate real life problems into mathematical problems and to solve life oriented and decision making problems by optimizing the objective function.
70	Elective II: a) Astronomy	MC2065	Industrial visit, Assignment on Motion of a planet with respect to the Sun			Assignment on the System of coordinates	To introduce space science and to familiarize the important features of the planets, sun, moon and stellar universe and to predict lunar and solar eclipses and study the seasonal changes.

	Elective II: b) Boolean	MC2066						Assignment on greatest and least	To introduce the algebraic structures like lattices
71	Algebra							upper bound	and Boolean algebra and to apply these concepts in
									various branches of Mathematics.
	Elective II: c) Web	MC2067							To understand the importance of the web as a
72	Designing with HTML								medium of communication and to create an
					_				effective web page with graphic design principles.
	Skill Enhancement	SEM203		Solving problems on Time and Work		Assignment on Profit and		Assignment on Profit and Loss, Ratio	To gain deeper knowledge in differential equations,
73	Course: Mathematics for					Loss, Ratio and		and Proportion, Quiz on Problems on	differentiation and integration of vector functions
	Competitive					Proportion, Quiz on		ages	and to apply the concepts in higher mathematics
	Examinations	DM2011		Dala Dian an anniversa alassas Calus		Problems on ages		Determine the impossibility of a	and physical sciences.
74	Core I: Algebra I	PM2011		Role Play on conjugate classes, Solve				Determine the irreducibility of a	the righness of higher Methematics in advanced
/4				theorem				Criterion Seminer	application systems
	Core II: Analysis I	PM2012		Group discussion on convergent				Assignement on Basic topology	To understand the basic concepts of analysis and to
75	Core II. 7 marysis 1	1 1012012		sequences and cauchy sequences			10	Metric spaces. Open and closed sets	formulate a strong foundation for future studies
	Core III: Probability and	PM2013		1 Solve the problems using Binomial				Assignment on necessary and	To upgrade the knowledge in Probability theory
	Statistics			and Poisson distribution				sufficient conditions for stochastic	and to solve NET / SET related Statistical problems.
76				2. Group discussion on real application				independence	L
				of Poisson, Normal distributions				_	
	Core IV: Ordinary	PM2014		Find the solutions of first order linear				Find the general solution using	To study mathematical methods for solving
77	Differential Equations			equation, group discussion on Bessel				variation of parameter	differential equations and to Solve dynamical
				functions					problems of practical interest.
	Elective I: a) Numerical	PM2015						Brain storming on Direct Methods,	To study the various behaviour pattern of numbers
78	Analysis							Gauss elimination, Gauss - Jordan	and to study the various techniques of solving
	Elective I. b) Euger Sete	DM2016	-					Croup Discussion on Extension	applied scientific problems.
70	end Eurry Logic	PM2016						Group Discussion on Extension	To understand Fuzzy logic and to apply Fuzzy
/ / /	and Fuzzy Logic							on Fuzzy sets	concepts in other branches of Mathematics.
	Core V. Modules and	PM2021		Discussion on Linear independence				1 Solve problems on trace and	To understand the concept of Modules and the
	Vector Spaces	1.12021		and Dependence				Transpose of a matrix	advanced forms of Matrices related to Linear
80	1			1				2.Online Assignment on The Algebra	Transformations.
								of Linear Transformations,	
								Characteristic Roots	
	Core VI: Analysis II	PM2022		Peer review writing on the necessary				Brainstorming on Sequences and	To make the students understand the advanced
81				and sufficient condition for a function				series of functions, Assignment on	concepts of Analysis and to pursue research in
				to be Riemann Stieltjes integrable				Power series	Analysis related subjects.
	Core VII: Partial	PM2023		Solve problems using non linear				Solve the problems on singular	To formulate and solve different forms of partial
82	Differential Equations			partial differential equations of order				integral, Partial Differential	differential equations and to Solve the related
		D) (2024		one, Charpit's method				Equations with constant coefficients	application oriented problems.
0.2	Core VIII: Graph Theory	PM2024		Assignment on blocks of various				Determine Connectivity, Cut vertices	To introduce the important notions of graph theory
83				connectivity				Graph	and to Develop the skill of solving application
	Elective II: a) Classical	PM2025		Seminar on Hamilton's principle				Assignment on Virtual work	To gain deep insight into concepts of Dynamics
84	Dynamics	1 1112023		function			<u>ت</u>	isos Similar on Vintual work	and to do significant contemporary research
	Elective II: b)Differential	PM2026					ল	Solve problems on General surfaces	To study coordinate free geometry and to apply the
85	Geometry						-	of revolution, Helicoids, Orthogonal	theory in Tensors and theory of relativity.
								trajectories	
	Core IX: Field Theory	PM2031		Find the roots of the polynomial,				Find the degree of the splitting field	To learn in depth the concepts of Field Theory,
86	and Lattices			Group discussion on Galois groups				of the polynomial	Galois Theory and Lattices and to pursue research
				over the rationals					in pure Mathematics.

	Core X: Topology	PM2032	\square	Seminar on First and Second			\square	Group Discussion on order topology,	To distinguish spaces by means of simple
87				countable spaces, Group discussion				Stone Cechcompactifications	topological invariants and to lay the foundation for
				on Countability axioms					higher studies in Geometry and Algebraic
	C	DM2022						Contractor Littlement to days	Topology.
	Core XI: Measure	PM2033		Group discussion on measurable sets				seminar on Littlewood's three	To generalize the concept of integration using
00	Theory and Integration			and measurable functions				principles	abstract situations
	Elective III: a) Algebraic	PM2034		Analyze main applications of public				1.Solve problems in Ouadratic	To gain deep knowledge about Number theory and
	Number Theory and			key cryptosystem and RSA				residues and Pythagorean Triangles	to study the relation between Number theory and
89	Cryptography			cryptography.				2. Analyze the difference between	Abstract and to know the concepts of Cryptography.
								Legendre symbol and Jacobi symbol	
	Elective III: b)	PM2035						Seminar on Markov chain,	To understand the stochastic models and to relate
	Stochastic Process							Transition probabilities, Random	the models studied to real life probabilistic
90								walk and Assignment on Higher	situations.
								of states and chains	
	Major - Project	PM20PR							To develop the attitude of studying a topic in depth
91	Wiajor - I Toject	1 1/12/01 K							independently.
	Self Learning Course:	PM20S1							To enhance problem solving skills and to enable
92	Algebra for SET/CSIR-		-		_		-		the students to clear the CSIR - NET/SET Exams.
	NET Exam								
93	Core XII: Complex	PM2041		Solve the problems using queueing			\square		To impart knowledge on complex functions and to
	Analysis			models				Assignment on queueing models	facilitate the study of advanced mathematics.
	Core XIII: Functional	PM2042		Assignment on Application of Banach				Solving muliple choice questions	To study the three structure theorems of Functional
	Analysis			space and Hilbert space in real life,				and analyze problems in NET/SET	Analysis and to introduce Hilber Spaces and
94				Group discussion on projection				Organised National Seminar for	operator theory and to enable the students to
								research	pursue research.
	Core XIV: Operations	PM2043	\square	List out the real application of			\square	Draw arrow network diagrams, Find	To learn optimizing objective functions and to
95	Research			queueing models, Seminar on tandem				the critical path, peer teaching	solve life oriented decision making problems.
				series					
	Core XV: Algorithmic	PM2044					\square	Analyze the algorithms, Class Test on	To instill knowledge about algorithms and to write
96	Graph Theory							BFS and DFS	innovative algorithms for graph theoretical
		D) (20 45							problems.
	Elective IV : a)	PM2045		Solve problems in Equivalence classes				Solving linear recurrence relations	To do an advanced study of permutations and
97	Combinatories			Open book test on Equivalence				with constant coefficients	problems
				classes under a permutation group					proteins.
	Elective IV : b)Coding	PM2046		Constructing codes from other codes				Solving Krawtchouk Polynomials,	To learn the different procedures of coding and
98	Theory			and solve problems on Reed-Muller				Online Quiz on idempotent of a	decoding and to avail job opportunities in a number
	-			code				cyclic code.	of detective agencies.
	Self Learning Course:	PM20S2	\square		\bigtriangledown		\Box		To enhance problem solving skills and to enable
99	Analysis for SET/CSIR-								the students to clear the CSIR-NET/SET Exams.
	NET Exam				0				
	Major Core I:	MC2011		1. Solve problems in Curvature,	$\mathbf{\nabla}$	Online Quiz on Radius of		Online Quiz on Radius of curvature	To impart knowledge on applications of
100	Trigonometry			2 Assignment on p r equation of a		coordinates		In Cartesian coordinates	Trigonometry and to onhance problem solving
	111gonomeu y			2.Assignment on p-r equation of a		coordinates			skills
<u> </u>	Non Major Elective	MNM201		Solve problems in Simplification.		Ouiz on Percentage		Ouiz on Percentage	To develop the quantitative aptitude of the students
101	Course (NME):			solve competitive exam questions	2	C			and to solve problems required for various
	Quantitative Aptitude I			1					competitive examinations.

	Major Core II: Classical	MC2021		Solve the cosine and sine series		Assignment on Relations		Assignment on Relations between root	To give a sound knowledge in Classical Algebra
102	Algebra and Integral			problems,		between roots and			and to solve problems in applications of Integral
	Calculus			Group discussion on Evaluation of		coefficients			Calculus.
	Non Major Elective	MNM202		Solve the problems on Compound		Ouiz on Problems on		Ouiz on Problems on numbers.	To develop the quantitative aptitude of the students
103	Course (NME):			interest,		numbers, problems on		problems on trains	and to solve problems needed for various
	Quantitative Aptitude II			Assignment on Problems on Trains		trains			competitive examinations.
	Major Core III:	MC2031		Peer teaching on Laplace		Find the relation between		Find the solution of linear differential	To gain deeper knowledge in differential equations,
104	Differential Equations			Transformation,		the Laplace and Inverse		equation using Laplace Transform,	differentiation and integration of vector functions
	and Vector Calculus			Quiz on Formation of partial		Laplace Transform		Assignment on divergence and curl	and to apply the concepts in higher mathematics
	Major Cora IV: Paal	MC2032		differential equations				Brainstorming on Convergent	and physical sciences.
	Analysis I	MC2032		checking convergent and divergent				sequence	and series of real numbers and to develop problem
105	r marysis r			sequences				PPT presentation on The upper and	solving skills.
								lower limits of a sequence,	
	Allied III: Probability	MA2031	\Box	Solve problems in probability	\Box	Calculate the conditional	\Box	Seminar on Discrete and continuous	To impart knowledge on the basic concepts of
106	Theory and Distributions					properties in probability		random variables,	Probability theory and Probability distributions and
		MC2001						Assignment on Poisson distribution	to apply the theory in real life situations.
107	Self-Learning Course:	MC20S1							To develop the interest of self learning in subject
	Major Core V: Groups	MC2041		Assignment on Isomorphism of rings				Online Quiz on Cyclic groups	To introduce the concepts of Group theory and
	and Rings	10102011		Peer teaching on subgroups,				Brainstorming on Rings	Ring theory and to gain more knowledge essential
108	6			Permutation.					for higher studies in Abstract Algebra.
100	Major Core VI:	MC2042		Group discussion on properties of 3-				Solve problems in Projection ,Online	To gain deeper knowledge in three dimensional
109	Dimensions			and analyze its real life applications				Quiz on Tangent plane and normal.	thinking innovation and synthesis of information
	Allied IV: Applied	MA2041		Solve the problems in Sampling				Distinguish between the practical	To acquire the knowledge of correlation theory and
110	Statistics							purpose of a large and small samples	testing hypothesis and to solve research and
									application oriented problems.
111	Self-Learning Course:	MC20S2					\Box		To develop the interest of self learning in subject
	Discrete Mathematics II								oriented courses.
112	Major Core VII: Linear	MC1751		Brainstroming on Vector spaces,				Assignment on Subspaces, Seminar	To compute quantities that deal with linear systems
112	Algebra			Solve problems on basis and dimension of a vector space				on Basis and Dimension	and eigenvalue problems.
	Maior Core VIII: Real	MC1752		Think, pair and share activity on				Differentiate between Continuous	To introduce Metric Spaces and the concepts of
	Analysis		1	Bounded sets, Open ball, Opens sets				and Uniformly Continuous function	completeness, continuity, connectedness,
113									compactness and uniform convergence and to use
									these concepts in higher studies.
	Major Core IX: Graph	MC1753	∣⊻	Finding the degree sequences of			⊻	Find the degrees of graphs	To introduce graphs, directed graphs and the
114	Theory			graphs, Group discussion on Eulerian					concepts of connectedness and labelings and to
	Major - Project	MC1754		Graphs, Hamiltonian Graphs					To develop the attitude of studying a topic in depth
115	1110/001	WIC1/J4					ت		independently.
	Elective I: a) Numerical	MC1755	\Box	Solve the problems using Trapezoidal			\Box	Solving algebraic and transcendental	To study Numerical differentiation and Numerical
116	Methods			rule, Assignment on Newton's				equations	integration using different formulae and to develop
110				Interpolation formulae, Lagrange's					various methods for solving applied scientific
				Interpolation formula					problems.

117	Elective I: b) Fuzzy Mathematics	MC1756				Assignment on Classical Logic, Logical Connectives, Truth Values and Truth Tables	To understand Fuzzy concepts of sets and operations and to apply the Fuzzy concepts in image processing, machine learning and artificial intelligence.
118	Elective I: c) Object Oriented Programming with C++	MC1757					To learn and write programmes in C++ Language and to enhance job opportunities.
119	Mathematics for Competitive Examination - I	MSK175	Solve problems in Percentage, Time, average and speed, Analyze competitive exam questions		Quiz on Conversion of decimal into percentage and vice versa, Problems on Population and Depreciation, Partnership	Solving problems on Pipes and Cisterns, Problems related to inlet and outlet of the tank	To develop the quantitative aptitude of the students and to solve problems needed for various competitive examinations.
120	Major Core X: Complex Analysis	MC1761	Find the poles and singularities of analytic function, Prepartion of MCQ on Cauchy Riemann equations, Analytic functions			Assignment on Cross ratio, Complex integration- Definite Integral	To introduce the basic concepts of differentiation and integration of Complex functions and to apply the related concepts in higher studies.
121	Major Core XI: Mechanics	MC1762	Solving problems in coplanar forces, parallel forces			Group discussion on real life applications on Lamis theorem, moments, Analyze various types of forces	To study the application of Mathematics in Physical Sciences and to solve related problems.
			·		2021-2022		
122	Major Core XII: Number Theory	MC1763	Solve problems using linear congruences and the Chinese remainder theorem			Assignment on The sum and number of divisors, The greatest integer function	To introduce the fundamental principles and concepts in Number Theory and to apply these principles in other branches of Mathematics.
123	Major Core XIII: Operations Research	MC1764	Assignment on Formulation of L.P.P, Solution of L.P.P, Graphical method			Solve problems using Simplex method, Big-M Method	To formulate real life problems into mathematical problems and to solve life oriented and decision making problems by optimizing the objective function.
124	Elective II: a) Astronomy	MC1765	Solving exercise problems on Zones of the earth, Perpetual Day and Perpetual night, Terrestrial latitude and longitude			Assignment on Geocentric parallax, Horizontal parallax	To identify, classify and compare the stars and the large scale structures of our Universe.
125	Elective II: b) Boolean Algebra	MC1766				Assignment on Lattice homomorphism, Modular lattice, Boolean Algebras	To introduce the algebraic structures like lattices and Boolean algebra and to apply these concepts in various branches of Mathematics.
126	Elective II: c) Web Designing with HTML	MC1767		\bigtriangledown			To understand the importance of the web as a medium of communication and to create an effective web page with graphic design principles.
127	Skill Based Course: Mathematics for Competitive Examination - II	MSK176	Solve problems on Trains, Compound Interest and Cylinder		Group discussion on Clocks, Stocks and Shares	Solving problems on Volume and Surface Areas- Cuboid, Cube, Cylinder Peer teaching on Counting Odd Days	To develop the quantitative aptitude of the students and to solve problems needed for various competitive examinations.
128	Core I: Algebra I	PM2011	Solve problems using Sylow's theorems			Seminar on Polynomial Rings over Co	To study abstract Algebraic systems and to know the richness of higher Mathematics in advanced application systems.

	Core II: Analysis I	PM2012		Sove the problems using metric] 1	Brainstorming on Continuity, Limits	To understand the basic concepts of analysis and to
120				spaces, Assignment on Power series,		0	of function, Seminar on	formulate a strong foundation for future studies.
129				Summation by parts		1	Differentiation of vector valued	
						f	functions	
	Core III: Probability and	PM2013		Solve the problems using Binomial]	Peer teaching on Limiting	To upgrade the knowledge in Probability theory
130	Statistics		-	distribution	-	-	listributions	and to solve NET / SET related Statistical problems.
	Core IV: Ordinary	PM2014		Solve the problems in homogeneous		1	Seminar on Bessel's functions. The	To study mathematical methods for solving
	Differential Equations			linear systems with constant			amma function	differential equations and to Solve dynamical
131				coefficients. Group Discussion on		ľ		problems of practical interest.
				Problems in Legendre polynomials				r
	Elective I: a) Numerical	PM2015				1	Solve problems using Newton's	To study the various behaviour pattern of numbers
132	Analysis	1112010				, l	formulae for Interpolation	and to study the various techniques of solving
132	1 mary 515					ľ	ormaniae for interpolation	applied scientific problems
	Elective I: b)Fuzzy Sets	PM2016				1	Seminar on Crisp versus Fuzzy	To understand Fuzzy logic and to apply Fuzzy
133	and Fuzzy Logic	1 112010				ן י	relations Projections Binary Fuzzy	concepts in other branches of Mathematics
155	and Tuzzy Logic						elations, 110 jections, Dinary 1 uzzy	concepts in other branches of Wathematics.
	Core V: Modules and	PM2021		Solving problems on Characteristic		ין ו	Group discussion on the concepts of	To understand the concept of Modules and the
13/	Vector Spaces	1 1/12021		Roots Matrices		וי	inear independence and dependence	advanced forms of Matrices related to Linear
134	vector spaces			Roots, Matrices		1	mear independence and dependence	Transformations
	Coro VI: Analysis II	PM2022		Differentiate between pointwise and		1	Assignment on Differentiation	To make the students understand the advanced
	Core VI. Analysis II	r 1012022	10	uniform convergence, cominer on		וי	Assignment on Differentiation,	appearts of A polycic and to pursue research in
135				Dever series. The contraction principle		1	-artial derivatives	A polycic roloted subjects
				Fower series, The contraction principle				Allalysis leialeu subjects.
	Coro VII: Dortiol	DM2022		Solve problems using non-linear		1	Group Discussion on Compatible	To formulate and solve different forms of partial
	Differential Equations	FM2025		solve problems using non inteal		יןי	shoup Discussion on Companyie	differential equations and to Salue the related
136	Differential Equations			partial differential equations of order			System of first order equations,	differential equations and to Solve the related
				inte anal		ľ	_narpit's method	application oriented problems.
	Core VIII: Greenh Theory	DM2024		Find tournement of graphs		<u>,</u>	Deer teaching on Kuratewaki's	To introduce the important notions of graph theory
	Core vin. Graph meory	F1VI2024		A second se		ין נ	Feel teaching on Kuratowski s	To infoduce the important notions of graph theory
				Assignment on Strong graphs, Quiz			Theorem, vertex Coloring, Brook s	and to Develop the skill of solving application
137				on Cut vertices, Blocks			Theorem, Edge Coloring	oriented problems.
		DM2025						The set of the initial distance of the first of the set
120	Elective II: a) Classical	PM2025				յլ։	Solve problems using Lagrange's	To gain deep insight into concepts of Dynamics
138	Dynamics					e	equation	and to do significant contemporary research.
		DMOOOC	<u> </u>					
139	Elective II: b)	PM2026				յի։	Solve problems on Geodesics on a	To study coordinate free geometry and to apply the
	Differential Geometry	D1 (2021				3 2	Surface, Developable surfaces	theory in Tensors and theory of relativity.
	Core IX: Field Theory	PM2031		Solve the problems in Algebraic		۱I	Juiz on Roots of polynomials	To learn in depth the concepts of Field Theory,
140	and Lattices			extension				Galois Theory and Lattices and to pursue research
	Cons Vo Ton 1	DM (2022						In pure Mathematics.
	Core X: Topology	PM2032		Assignment on Subbasis, Unline Quiz		٦ŀ	Seminar on Compact spaces,	To distinguish spaces by means of simple
141				on Connected spaces			Compact subspaces of the Real Line,	topological invariants and to lay the foundation for
						ľ	Uniform Continuity theorem	higher studies in Geometry and Algebraic
		D) (2.222				+		Topology.
	Core XI: Measure	PM2033		Solve problems in Lebesgue Measure		ן נ	sroup Discussion Functions of	To generalize the concept of integration using
142	Theory and Integration					l	bounded variation and Measurable	measures and to develop the concept of analysis in
						f	functions	abstract situations.

	Elective III: a) Algebraic	PM2034	\square	Group discussion on encryption and				Peer teaching on RSA –Discrete	To gain deep knowledge about Number theory and
1/2	Number Theory and			decryption in cryptography and main				logarithm	to study the relation between Number theory and
145	Cryptography			applications of public key					Abstract and to know the concepts of Cryptography.
				cryptosystem					
	Elective III: b)	PM2035						Assignment on Markov process with	To understand the stochastic models and to relate
144	Stochastic Process							discrete state space, Poisson process,	the models studied to real life probabilistic
								Poisson Cluster process	situations.
145	Major - Project	PM20PR							To develop the attitude of studying a topic in depth
					_				independently.
	Self Learning Course:	PM20S1			$\mathbf{\nabla}$				To enhance problem solving skills and to enable
146	Algebra for SET/CSIR-								the students to clear the CSIR - NET/SET Exams.
	NET Exam								
147	Core XII: Complex	PM2041		Solve problems on Cauchy's theorem				Solve problems on Zeros and poles,	To impart knowledge on complex functions and to
	Analysis			of a rectangle				Complex Integration	facilitate the study of advanced mathematics.
	Core XIII: Functional	PM2042		Assignment on Banach space and				Group discussion on the difference	To study the three structure theorems of Functional
148	Analysis			Hilbert space				between Banach space and Hilbert	Analysis and to introduce Hilber Spaces and
								space	Operator theory and to enable the students to
	C WILL O II	D) (20.42							pursue research.
1.40	Core XIV: Operations	PM2043		Group Discussion on Queueing				Quiz on Construction of the time	To learn optimizing objective functions and to
149	Research			Models of Types : $(M/G/1)$: $(GD/\infty/\infty)$				chart and resource levelling	solve life oriented decision making problems.
	Com XVI Alexateleste	DN (2014						C	
	Core XV: Algorithmic	PM2044						Group discussion on The role of	To instill knowledge about algorithms and to write
150	Graph Theory							algorithms in computing, Seminar on	innovative algorithms for graph theoretical
								Shortest paths and matrix	problems.
	Elective IV: e)	DM2045		Assignment on Conserting functions				Quiz on Portitions of integers. The	To do an advanced study of normystations and
151	Combinatorics	F1v12043	Ľ	Generating functions for combinations			l.	ferrers graph	combinations and to Solve related real life
151	comoniatories			Generating functions for combinations				ieners graph	problems
	Elective IV: b) Coding	PM2046						Assignment on Reed-Muller code	To learn the different procedures of coding and
152	Theory	11112010						Kerdock codes The Gilbert bound	decoding and to avail job opportunities in a number
-								Upper bounds	of detective agencies.
	Self Learning Course:	PM20S2							To enhance problem solving skills and to enable
153	Analysis for SET/CSIR-				-				the students to clear the CSIR-NET/SET Exams.
	NET Exam								
	Major Core I:	MC2011			\bigtriangledown		\Box	Solve problems in – equation of a	To impart knowledge on applications of
154	Differential Calculus and							curve, Assignment on Asymptotes of	Differential Calculus and important concepts of
154	Trigonometry							polar curves. $p r$	Trigonometry and to enhance problem solving
									skills.
	Non Major Elective	MNM201		Solving problems on profit or loss	$\overline{\mathbf{a}}$				To develop the quantitative aptitude of the students
155	Course (NME):			percentage, Calculating the ratio of					and to solve problems required for various
	Quantitative Aptitude I			division of gains among the partners					competitive examinations.
	Major Core II: Classical	MC2021			\square			Determining the Sum of rth power of	To give a sound knowledge in Classical Algebra
156	Algebra and Integral							the roots	and to solve problems in applications of Integral
	Calculus				_				Calculus.
	Non Major Elective	MNM202		Analyse relation between a train and	$\mathbf{\nabla}$				To develop the quantitative aptitude of the students
157	Course (NME):			stationary/moving body, Solve					and to solve problems needed for various
	Quantitative Aptitude II			problems onCompound Interest.	_	· · · · · · · · · · · · · · · · · · ·			competitive examinations.
	Major Core III:	MC1731		Solving linear differential equations	\bowtie	Solving linear differential		Solve the problems in inverse	To gain deeper knowledge in differential equations,
4	Differential Equations			and simultaneous equations of first		equations and		Laplace Transform, Quiz on Green's,	differentiation and integration of vector functions
158	and vector Calculus			order using Laplace transform		simultaneous equations		Stoke's and Gauss divergence	and to apply the concepts in higher mathematics
						of first order using		theorems.	and physical sciences.
						Laplace transform			

159	Major Core IV: Sequences and Series	MC1732	Compare different types of sequences such as Bounded, Monotonic, Convergent, Oscillating and divergent sequences.		Differentiate Convergent, Divergent and oscillating sequences.	To introduce the primary concepts of sequences and series of real numbers and to develop problem solving skills.
160	Allied III: Probability Theory and Distributions	MA1731	Solving exercise problems on Probability density function, Distribution function, Mean and variance	Assignment on Probability density function, Distribution function	Class test on Samples , Events Probability density function & Distribution function.	To impart knowledge on the basic concepts of Probability theory and Probability distributions and to apply the theory in real life situations.
161	Self-Learning Course: Discrete Mathematics I	MC17S1				To develop the interest of self learning in diverse subjects related to mathematics and to convert real life problems into mathematical problems.
162	Major Core V: Groups and Rings	MC1741	Group discussion on Permutations, Cyclic groups.		Solve problems in Groups, Cyclic groups, Find number of subgroups using Lagranges theorem	To introduce the concepts of Group theory and Ring theory and to gain more knowledge essential for higher studies in Abstract Algebra.
163	Major Core VI: Analytical Geometry of 3 Dimensions	MC1742	Group discussion on solving problems on sphere, cone		Solve problems on Projection ,Direction cosines, Direction ratios	To gain deeper knowledge in three dimensional Analytical Geometry and to develop creative thinking, innovation and synthesis of information.
164	Allied IV: Applied Statistics	MA1741	Quiz on Regression, Equation of regression lines		Problem solving in Correlation. Quiz on Rank Correlation & Regression.	To acquire the knowledge of correlation theory and testing hypothesis and to solve research and application oriented problems.
165	Self-Learning Course: Discrete Mathematics II	MC17S2				To develop the interest of self learning in diverse subjects related to Mathematics and to convert real life problems into mathematical problems.
166	Major Core VII: Linear Algebra	MC1751	Assignment on matrix of a linear transformation		Find the Characteristic equation of a matrix, Peer teaching on Rank and Nullity	To compute quantities that deal with linear systems and eigenvalue problems.
167	Major Core VIII: Real Analysis	MC1752	Peer teaching on Countable and Uncountable sets.		Assignment on Countable and Uncountable sets. Preparing multiple choice questions in Metric Space, Bounded sets	To introduce Metric Spaces and the concepts of completeness, continuity, connectedness, compactness and uniform convergence and to use these concepts in higher studies.
168	Major Core IX: Graph Theory	MC1753	Finding the degree sequences of graphs		Group discussion on Blocks, Connectivity, Eulerian Graphs, Hamiltonian Graphs	To introduce graphs, directed graphs and the concepts of connectedness and labelings and to apply these concepts in research.
169	Major - Project	MC1754				To develop the attitude of studying a topic in depth independently.
170	Elective I: a) Numerical Methods	MC1755	Solve problems on Iteration method, Finite difference, Newton's Interpolation formulae.		Find the solution of algebraic equation using Iteration method, Assignment on Newton's Interpolation formulae.	To study Numerical differentiation and Numerical integration using different formulae and to develop various methods for solving applied scientific problems.
171	Elective I: b) Fuzzy Mathematics	MC1756			Finding the Relations on Fuzzy set, Peer review writing on Operations on fuzzy Relation	To understand Fuzzy concepts of sets and operations and to apply the Fuzzy concepts in image processing, machine learning and artificial intelligence.
172	Elective I: c) Object Oriented Programming with C++	MC1757				To learn and write programmes in C++ Language and to enhance job opportunities.
173	Skill Based Course: Mathematics for Competitive Examination - I	MSK175	Solving problems on Time and Distance, Average speed, Boats and Streams	Group Discussion on Problems on Population and Depreciation, Partnership		To develop the quantitative aptitude of the students and to solve problems needed for various competitive examinations.

	Major Core X: Complex	MC1761		Assignment on Cauchy Riemann				Solving exercise problems on Roots	To introduce the basic concepts of differentiation	
174	Analysis			equations				of complex numbers	and integration of Complex functions and to apply	
	-			-				-	the related concepts in higher studies.	
475	Major Core XI:	MC1762						Assignment on Two directions of	To study the application of Mathematics in	
1/5	Mechanics						-	projection for a given velocity.	Physical Sciences and to solve related problems.	
	Major Core XII: Number	MC1763		Group discussion on The fundamental					To introduce the fundamental principles and	
176	Theory		-	theorem of arithmetic, The Sieve of			-		concepts in Number Theory and to apply these	
				Eratosthenes					principles in other branches of Mathematics.	
	Major Core XIII:	MC1764		Assignment on Simplex method, Big-				Solving problems on Graphical	To formulate real life problems into mathematical	
	Operations Research		-	M Method			-	method, Simplex method, Big-M	problems and to solve life oriented and decision	
1//	<u>^</u>							Method.	making problems by optimizing the objective	
									function.	
2020-2021										
	Elective II: a) Astronomy	MC1765	\Box	Determine Perpetual Day and				Assignment on Morning, Evening	To identify, classify and compare the stars and the	
178				Perpetual night, Terrestrial latitude				stars & Circumpolar stars.	large scale structures of our Universe.	
				and longitude				-		
	Elective II: b) Boolean	MC1766		Solve problems using Sylow's				Find the Least upper bound and	To introduce the algebraic structures like lattices	
179	Algebra			theorems and cauchy's theorem				greatest lower bound	and Boolean algebra and to apply these concepts in	
									various branches of Mathematics.	
	Elective II: c) Web	MC1767		Group discussion on Applications on				Design a home page, Quiz on Hyper	To understand the importance of the web as a	
180	Designing with HTML			Designing a Home Page				Links,	medium of communication and to create an	
									effective web page with graphic design principles.	
	Skill Based Course:	MSK176		Sove problems on finding the time		Group discussion on		Quiz on Problems on Trains,	To develop the quantitative aptitude of the students	
	Mathematics for			taken by the train to pass a pole or an		Calendar, Counting Odd		Compound Interest	and to solve problems needed for various	
181	Competitive			object of length, Relative Speed		Days, Day of the Week			competitive examinations.	
	Examination - II					related to Odd Days,				
						Clocks,				
	Core I: Algebra I	PM2011		Solve problems using Sylow's				Solve problems in division algorithm,	To study abstract Algebraic systems and to know	
182				theorems and cauchy's theorem,				Group discussion on Conjugate	the richness of higher Mathematics in advanced	
				Brainstorming on Characteristic of a				classes, Ideals and Quotient rings	application systems.	
		D) (2012		ring	<u> </u>					
100	Core II: Analysis I	PM2012		Solve problems using Taylor's series,				Group Discussion on Continuity,	To understand the basic concepts of analysis and to	
183				Assignment on Metric spaces				Limits of function, Peer teaching on	formulate a strong foundation for future studies.	
	Core III: Probability and	DM2012		Solvo problems in Binomial Doisson				Solve problems in marginal and	To ungrado the knowledge in Drobability theory	
	Statistics	FM2015		and Normal distributions				solve problems in marginar and	and to colve NET / SET related Statistical problems	
184	Statistics							of multiple choice questions in	and to solve NET / SET related Statistical problems.	
								NET/SET exam		
	Core IV: Ordinary	PM2014		Solve exercise problems in				Seminar on Bessel's functions. The	To study mathematical methods for solving	
185	Differential Equations	1 1012014		Homogeneous linear systems with			10	gamma function	differential equations and to Solve dynamical	
105	Differential Equations			constant coefficients					problems of practical interest	
<u> </u>	Elective I: a) Numerical	PM2015						Solve problems using Bisection	To study the various behaviour pattern of numbers	
186	Analysis	1 112013						Method, Ramanujan's Method.	and to study the various techniques of solving	
								,	applied scientific problems.	
	Elective I: a) Fuzzy Sets	PM2016						Group Discussion on Crisp set, Fuzzy	To understand Fuzzy logic and to apply Fuzzy	
107	and Fuzzy Logic							complements, Peer teaching on Fuzzy	concepts in other branches of Mathematics.	
187								compatibility relations, Fuzzy		
								ordering relations		

	Core V: Modules and	PM2021	\square	Solve the problems in linear		\Box	Find the basis of vector spaces,	To understand the concept of Modules and the
188	Vector Spaces			independence, Group Discussion on			Online Assignment on Detrminants,	advanced forms of Matrices related to Linear
				Trace and Transpose			Hermitian, Unitary and Normal	Transformations.
	Core VI: Analysis II	PM2022		Think pair and share activity on		2	Group discussion on uniform	To make the students understand the advanced
	Cole VI. Marysis II	1 1112022		Sequences and series of functions.		<u>ں</u>	convergence and pointwise	concepts of Analysis and to pursue research in
189				Continuity			convergence of a sequence of	Analysis related subjects.
							functions	
	Core VII: Partial	PM2023		Group discussion on problems in	⊡	2	Solveproblems on singular integral,	To formulate and solve different forms of partial
190	Differential Equations			Compatible system of first order			Partial Differential Equations with	differential equations and to Solve the related
		D) (2024		equations, Charpit's method		-	constant coefficients	application oriented problems.
101	Core VIII: Graph Theory	PM2024		Assignment on Connectivity, Cut		ן⊻	Brainstorming on Matchings and	To introduce the important notions of graph theory
191				vertices, edge connectivity			Factorization	oriented problems
	Elective II: a) Classical	PM2025				ন	Assignment on Lagrange's equations	To gain deep insight into concepts of Dynamics
192	Dynamics				- -	_	8 8 8 1	and to do significant contemporary research.
102	Elective II: b)	PM2026				2	Solve problems in curves of surfaces	To study coordinate free geometry and to apply the
195	Differential Geometry							theory in Tensors and theory of relativity.
	Core IX: Algebra III	PM1731		Solve the problems in normal	⊻	⊻	Find the normal extension of field,	To learn in depth the concepts of Galois Theory,
194				extension			Peer teaching on Vector spaces,	theory of modules and lattices and to pursue
	Core X: Topology	PM1732		Peer teaching on Connected spaces		5	Assignment on Comparison of hox	To distinguish spaces by means of simple
	Cole A. Topology	1 1011752		reer teaching on connected spaces	Ľ	<u>ں</u>	and product topologies	topological invariants and to lav the foundation for
195							and product topologies	higher studies in Geometry and Algebraic
								Topology.
	Core XI: Measure	PM1733	\square	Assignment on Lebesgue Measure,		2	Assignment on Riemann and	To generalize the concept of integration using
196	Theory and Integration			Outer measure, Measurable sets			Lebesgue integral	measures and to develop the concept of analysis in
	Floring III	DM1724				-	6.1	abstract situations.
	Algebraic Number	PM1/34				ש	and Puthagoroan Triangles Analyze	to gain deep knowledge about Number theory and
197	Theory						the difference between Legendre	Abstract Algebra
	lineory						symbol and Jacobi symbol	i losta de l'Ageora
	Elective III: b)	PM1735	\square			2	Solve problems in Markov chain,	To understand the stochastic models and to relate
198	Stochastic Process						Transition probabilities	the models studied to real life probabilistic
								situations.
	Major - Project	PM17PR			⊻	⊻		To submit a formal report to document the outcome
199								of the project and get practice in writing projects.
	Self Learning Course:	PM20S1				ন		To enhance problem solving skills and to enable
200	Algebra for SET/CSIR-					_		the students to clear the CSIR - NET/SET Exams.
	NET Exam							
201	Core XII: Complex	PM1741	\Box	Seminar on Analytic functions, Power		2	Finding the zeros and poles	To impart knowledge on complex functions and to
201	Analysis			series				facilitate the study of advanced mathematics.
	Core XIII: Functional	PM1742	∣⊻	Peer teaching on projections, Group		⊻	Assignment on Comparison of	To study the three structure theorems of Functional
202	Analysis			Discussion on Adjoint of an operator,			Banach spaces and Hilbert spaces	Analysis and to introduce Hilbert Spaces and
				Sen aujoint operators				pursue research
	Core XIV: Operations	PM1743		Constructing the time chart and	<u>م</u> ا	ন	Probems based on Critical path.	To learn optimizing objective functions and to
203	Research			resourse levelling, Open book test on		-	Inventory	solve life oriented decision making problems.
				The Pollaczek - Khintchine Formula			-	

204 Graph Theory algorithms in computing, Seminar on Shortest paths and matrix multiplication innovative algorithms for graph theoretical problems. 205 Elective IV: a) PM1745 Solve problems in weights and inventories of functions, multiple choice questions in NET/ SET exam Solve problems in permutations and combinations, Finding rook problems. To do an advanced study of permutations and combinations, Finding rook problems. 206 Elective IV: b) Coding Theory PM1746 Image: Combination on theory of the problems in NET/ SET exam Image: Combination on the problems in computing, Seminar on theory of the problems. To learn the different procedures of coding an decoding and to avail job opportunities in a nord decoding and to avail job opportunities in a nord decoding and to avail job opportunities in a nord decoding and to avail job opportunities in a nord decoding and to avail job opportunities in a nord decoding and to call the students to clear the CSIR-NET/SET Exam 207 Self Learning Course: Analysis for SET/CSIR-NET Exam Maior Core I: NET Exam Maior Core I: NET Exam Making models on applications in real life, Solve exercise problems in curvature, radius of curvature in curvature in curvature in the students to clear the collar and important concepts Trigonometry To impart knowledge on applications of Differential Calculus and important concepts Trigonometry and to enhance problem solving Trigonometry and to enhance problem solving Trigonometry	write
204 Image: Shortest paths and matrix multiplication problems. 205 Elective IV: a) PM1745 Image: Shortest paths and matrix multiplication problems. 205 Combinatorics PM1745 Image: Shortest paths and matrix multiplication To do an advanced study of permutations and combinations, stinding rook polynomials To do an advanced study of permutations and combinations and to Solve related real life polynomials. 206 Elective IV: b) Coding Theory PM1746 Image: Shortest paths and matrix multiplication To learn the different procedures of coding and to solve related real life polynomials. Solve problems in constructing codes from other codes To elearn the different procedures of coding and to avail job opportunities in a nor of detective agencies. 207 Self Learning Course: NET/CSIR-NET/SET exam PM20S2 Image: Solve problems in constructing codes from other codes To enhance problem solving skills and to ena the students to clear the CSIR-NET/SET Exam 208 Major Core I: NET Exam Making models on applications in real life, Solve exercise problems in curvature, radius of curvature in Image: Solving problems on evolute and linear asymptotes To impart knowledge on applications of Differential Calculus and important concepts Trigonometry and to enhance problem solving.	
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205 Combinatorics inventories of functions, multiple choice questions in NET/ SET exam combinations, Finding rook problems. combinations, and to Solve related real life problems. 206 Elective IV: b) Coding Theory PM1746 Image: Combination of the conductive agencies of the conductive agencies of the conductive agencies. To learn the different procedures of coding and to avail job opportunities in a north of detective agencies. 206 Self Learning Course: PM20S2 Image: Conductive agencies of the code of the c	d
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206 Theory Polynomials, Solve problems in Constructing codes from other codes decoding and to avail job opportunities in a r of detective agencies. 207 Analysis for SET/CSIR-NET Exam PM20S2 Image: Constructing codes from other codes To enhance problem solving skills and to ena the students to clear the CSIR-NET/SET Exa 208 Major Core I: MC1711 Making models on applications in real life, Solve exercise problems in curvature, radius of curvature in Image: Constructing codes from other codes To impart knowledge on applications of Differential Calculus and important concepts Trigonometry and to enhance problem solving	nd
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207 Analysis for SET/CSIR- NET Exam Making models on applications in real Image: Construction of the students to clear the CSIR-NET/SET Exam 208 Major Core I: Differential Calculus and Trigonometry Mc1711 Making models on applications in real life, Solve exercise problems in curvature, radius of curvature in Image: Construction of the students to clear the CSIR-NET/SET Exam	able
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Major Core I:MC1711Making models on applications in real life, Solve exercise problems in curvature, radius of curvature inImage: Constraint of the curvature and the curvature a	
208 Differential Calculus and Trigonometry life, Solve exercise problems in curvature, radius of curvature in life, Solve exercise problems in curvature, radius of curvature in Differential Calculus and important concepts Trigonometry	
208 Trigonometry Trigonometry and to enhance problem solving	sof
	19
Cartesian, polar co-ordinates skills,	.0
Non Major Elective MNM171 M Solve problems in HCF and LCM of M To develop the quantitative aptitude of the st	udents
Course numbers, Online assignment on and to solve problems required for various	
209 (NMEC): Mathematics Factorization method. Common	
for Life - I division method	
Major Core II: Classical MC1721 Assignment on Green's, Stoke's and 🗹 🕅 Solve problems in double integrals To give a sound knowledge in Classical Alge	ebra
210 Algebra and Integral Gauss divergence theorems and triple integrals and to solve problems in applications of Integrals	gral
Calculus Calculus.	-
Non Major Elective MNM172 🗹 Assignment on Problem on Ages, 🗹 🗹 To develop the quantitative aptitude of the str	udents
211 Course (NME): Making mathematical models on real and to solve problems needed for various	
Mathematics for Life - II life problems. competitive examinations.	
Major Core III: MC1731 🗹 Making Models on applications of 🗹 Peer - led discussions on 🔽 Group Discussion on linear To gain deeper knowledge in differential equ	lations,
Differential Equations differential equations differential equation and integration of vector funct	tions
and Vector Calculus and Vector Calculus and Laplace transform integrals and to apply the concepts in higher mathematic	atics
and physical sciences.	
Major Core IV: MC1732 🗹 Solving problems in sequence and 🕅 Solve problems in sequence and limit To introduce the primary concepts of sequence	ces
213 Sequences and Series limit points, Analyse various types of points, Analyse various types of tests and series of real numbers and to develop pro-	oblem
tests for checking convergent and for checking convergent and solving skills.	
divergent sequence and series divergent series	
Allied III: Probability MA1731 🗹 Model making on application of 🗹 Solving problems on 🖂 key Experimental learning to acquire the To impart knowledge on the basic concepts of	of
214 Theory and Distributions probability concepts in real life, Conditional probability knowledge of sample space, events Probability theory and Probability distribution	ons
Construct mathematical solutions and conditional properties and to apply the theory in real life situations.	
using Baye's Theorem	
Self-Learning Course: MC17S1	/erse
215 Discrete Mathematics I functions subjects related to mathematics and to conver	rt real
Interproblems into mathematical problems.	
Major Core V: Groups MC1/41 M Find number of subgroups using Solve problems in Groups, Cyclic To introduce the concepts of Group theory an	ad .
216 and Rings Lagranges theorem, Group discussion groups, Find number of subgroups Ring theory and to gain more knowledge esse	ential
on permutation and cyclic groups using Lagranges theorem for higher studies in Abstract Algebra.	
Maior Coro VII. MC1742 M Eind angle between two lines angle	
Analytical Computing of a long and deployed from the source of the sourc	
217 Analytical Geometry and to develop freative reduces of charge and thinking increases and the analytical Geometry and to develop freative reduces of the analytical Geometry and to develop freative reduces of the analytical Geometry and the analytical Geometry analytical	nal
between two lines	nal

	Allied IV: Applied	MA1741	\square	Solving problems in Sampling			Class test on properties of correlation	To acquire the knowledge of correlation theory and
218	Statistics			distribution			coefficient and Regression	testing hypothesis and to solve research and
		101500						application oriented problems.
210	Self-Learning Course:	MC17S2						To develop the interest of self learning in diverse
219	Discrete Mathematics II							life problems into mathematical problems
	Major Core VII [.] Linear	MC1751		Assignment on real life applications of			Find basis and dimension of Linear	To compute quantities that deal with linear systems
220	Algebra			vector space and subspace			transformation	and eigenvalue problems.
	Major Core VIII: Real	MC1752	\square	Group Discussion on Countable and			Conducting Quiz competition on	To introduce Metric Spaces and the concepts of
221	Analysis			Uncountable sets			Closed sets, Dense sets	completeness, continuity, connectedness,
								compactness and uniform convergence and to use
	Maion Cone IV: Creat	MC1752		Descentation on manual davalanments			Determine in dense den ee number en d	these concepts in higher studies.
	Theory	MC1/33	Ē	in graph theory (National Seminar)		ľ	covering number of a graph Identify	concepts of connectedness and labelings and to
222	Theory						Eulerian and Hamiltonian graphs.	apply these concepts in research.
223	Major - Project	MC1754				\square		To develop the attitude of studying a topic in depth
								independently.
	Elective I: a) Numerical	MC1755		Solve problems in Trapezoidal rule			Solve problems in iteration method	To study Numerical differentiation and Numerical
224	Methods			and Simpsons rule, Assignment on				integration using different formulae and to develop
				real life				problems
	Elective I: b) Fuzzy	MC1756	ন					To understand Fuzzy concepts of sets and
	Mathematics					-		operations and to apply the Fuzzy concepts in
225								image processing, machine learning and artificial
								intelligence.
	Elective I: c) Object	MC1757						To learn and write programmes in C++ Language
226	Oriented Programming							and to enhance job opportunities.
	Skill Based Course:	MSK175		Assignmens in percentage	Solving problems on		Quiz on Boats and Streams	To develop the quantitative aptitude of the students
	Mathematics for	MORITS		partnership. Solving competitive	Working partners and		Quiz on Boats and Streams	and to solve problems needed for various
227	Competitive			exam questions	sleeping partners, Pipes			competitive examinations.
	Examination - I			-	and Cistern			-
	Major Core X: Complex	MC1761		Peer-led discussions on diferent types			Solving problems on conjugation and	To introduce the basic concepts of differentiation
228	Analysis			of residues and Conjugation and			modulus	and integration of Complex functions and to apply
	Major Cora VI	MC1762		modulus			Solve problems on friction Find	The related concepts in higher studies.
229	Major Core AI. Mechanics	MC1702					general solution of the SHM	Physical Sciences and to solve related problems
	Major Core XII: Number	MC1763		Quiz on the sum and number of			Solve linear congurences using	To introduce the fundamental principles and
230	Theory		-	divisors		-	Chinese remainder theorem	concepts in Number Theory and to apply these
								principles in other branches of Mathematics.
	Major Core XIII:	MC1764		Finding mathematical Formulation of			Solve problems in simplex method	To formulate real life problems into mathematical
231	Operations Research			L.P.P problems			and Big M method	problems and to solve life oriented and decision
								making problems by optimizing the objective
	Elective II: a) Astronomy	MC1765		Assignment on real life applications of			Find the angular diameter	To identify classify and compare the stars and the
232	Elective II. a) ristronomy	11101705		astronomy, Making models in Lunar			Assignment on systems of	large scale structures of our Universe.
				Eclipse, Solar Eclipse.			coordinates	
	Elective II: b) Boolean	MC1766	\Box	Solving problems in Boolean Algebras		\square	Finding least upper bound and	To introduce the algebraic structures like lattices
233	Algebra			and assignment on Stone's theorem			greatest lower bound	and Boolean algebra and to apply these concepts in
1					1	1		various branches of Mathematics.

	2019-2020										
234	Elective II: c) Web Designing with HTML	MC1767		Designing a Home Page using HTML				Design a home page	To understand the importance of the web as a medium of communication and to create an effective web page with graphic design principles.		
235	Skill Based Course: Mathematics for Competitive Examination - II	MSK176		Solving and creating problems on Compound Interest, Assignment on Clocks, Stocks and Shares problems.		Grou discussion on Problems on Trains, Crossing time of two trains		Quiz on Banker's Discount, Banker's Gain	To develop the quantitative aptitude of the students and to solve problems needed for various competitive examinations.		
236	Core I: Algebra I	PM1711		Quiz on Rings				Assignment on Product of two ideals, Quotient rings	To study abstract Algebraic systems and to know the richness of higher Mathematics in advanced application systems.		
237	Core II: Analysis I	PM1712		Find out the application of Weiesstrass theorem, Group discussion on all types of sequence.				Peer review writing on Open, closed sets & Dense sets.	To understand the basic concepts of analysis and to formulate a strong foundation for future studies.		
238	Core III: Probability and Statistics	PM1713		Solve problems in Binomial ,Poisson and Normal disreibutions				Solve problems in marginal and conditional distributions, central limit theorem, Multiple choice questions in NET/SET exam.	To upgrade the knowledge in Probability theory and to solve NET / SET related Statistical problems.		
239	Core IV: Ordinary Differential Equations	PM1714		Solve boundary value problems, Sturm Liuville roblem, Assignment on Boundary value problems				Solve problems on second order linear differential equations using various methods.	To study mathematical methods for solving differential equations and to Solve dynamical problems of practical interest.		
240	Elective I: a) Numerical Analysis	PM1715						Solve problems using Newton's forward, Newton's backward and iteration method	To study the various behaviour pattern of numbers and to study the various techniques of solving applied scientific problems.		
241	Elective I: b) Fuzzy Sets and Fuzzy Logic	PM1716						Group Discussion on Crisp set, Fuzzy complements	To understand Fuzzy logic and to apply Fuzzy concepts in other branches of Mathematics.		
242	Core V: Algebra II	PM1721		Solve problems in Subspaces and vectorspaces, Assignment on Minimal polynomials, Diagonolizable operators.				Find the basis and dimensions of vector space, Online Assignment on Dual spaces, Eigen values and Eigen vectors.	To understand the concept of Extension fields and to apply the idea of advanced forms of matrices related to linear transformations in real life situations.		
243	Core VI: Analysis II	PM1722		Group discussion on application of Riemann Stieltjes integrals, Assignment on sequences and series of functions				Assignment on properties of integrals, Group discussion on The inverse function theorem.	To make the students understand the advanced concepts of Analysis and to pursue research in Analysis related subjects.		
244	Core VII: Partial Differential Equations	PM1723		Solve problems by separation of variables method				Solve the problems on Complete integral, Particular integral, Singular integral.Standard form I, II, III, IV	To formulate and solve different forms of partial differential equations and to Solve the related application oriented problems.		
245	Core VIII: Graph Theory	PM1724		Lecture on recent research topics (National Seminar), Assignment on Geodetic sets				Determine the connectivity and edge connectivity number of a graph, Seminar on Digraphs.	To introduce the important notions of graph theory and to Develop the skill of solving application oriented problems.		
246	Elective II: a) Classical Dynamics	PM1725						Solve Lagrange's equations problems in Principle of least action & Examples.	To apply D'Alembert's Principle to solve the problems involving system of particles.		
247	Elective II: b) Differential Geometry	PM1726						Finding the locus of centres of spherical curvature	To study coordinate free geometry and to pply the theory in Tensors and theory of relativity.		
248	Core IX: Algebra III	PM1731		Assignment on Galois groups over the rationals, Solving NET/SET exam questions.				Online Assignment on normal extension of field	To learn in depth the concepts of Galois Theory, theory of modules and lattices and to pursue research in pure Mathematics.		

249	Core X: Topology	PM1732	List out the real life application of Topology , Assignment on Hausdorff spaces.			Assignment on the product topology, Group discussion on the application of Uryson lemma	To distinguish spaces by means of simple topological invariants and to lay the foundation for higher studies in Geometry and Algebraic Topology.
250	Core XI: Measure Theory and Integration	PM1733	Assignment on application of the Lebesgue Measure and the Riemann Integral, Solving problems in differentiation and integration	6	$\overline{\mathbf{v}}$	Think, pair and share on Lebesgue Measure	To generalize the concept of integration using measures and to develop the concept of analysis in abstract situations.
251	Elective III: a) Algebraic Number Theory	PM1734		6		Solving problems on partition function	To gain deep knowledge about Number theory and to study the relation between Number theory and Abstract Algebra.
252	Elective III: b) Stochastic Process	PM1735	Assignment on real life applications of queueing models and solving critical problems in M/G/1 and GI/M/1 queuing models.	6	$\overline{\mathbf{v}}$	Solving problems on Markov chain, Transition probabilities, Random walk	To understand the stochastic models and to relate the models studied to real life probabilistic situations.
253	Major -Project	PM17PR		6			To submit a formal report to document the outcome of the project and get practice in writing projects.
254	Self Learning Course: Algebra for SET/CSIR- NET Exam	PM20S1	Solving NET/SET based problems in Vector spaces and Algebra of Linear Transformations.	6			To enhance problem solving skills and to enable the students to clear the CSIR - NET/SET Exams.
255	Core XII: Complex Analysis	PM1741	Solving NET/SET based problems on complex integration	6		Assignment on Analytic functions, Cauchy's integral formula	To impart knowledge on complex functions and to facilitate the study of advanced mathematics.
256	Core XIII: Functional Analysis	PM1742	Assignment on different types of operators, Analyze the Banach spaces and Hilbert spaces			Assignment on continuous linear transformation	To study the three structure theorems of Functional Analysis and to introduce Hilbert Spaces and Operator theory and to enable the students to pursue research.
257	Core XIV: Operations Research	PM1743	Assignment on Construction of the time chart and resource levelling, List out the applications of all queueing models.	6	$\overline{\mathbf{v}}$	Group Discussion on determining critical path calculation	To learn optimizing objective functions and to solve life oriented decision making problems.
258	Core XV: Algorithmic Graph Theory	PM1744		6		Online Assignment on Breadth -first Search and Depth- first Search of the graphs	To instill knowledge about algorithms and to write innovative algorithms for graph theoretical problems.
259	Elective IV: a) Combinatorics	PM1745	Solving real life problems on Generating functions for combinations and Polya's theory of counting.	6	\Box	Solve problems in permutations and combinations, Finding rook polynomials	To do an advanced study of permutations and combinations and to Solve related real life problems.
260	Elective IV: b) Coding Theory	PM1746	Group discussion on all types of codes and its applications			Assignment on Block codes, Linear codes, Hamming codes	To learn the different procedures of coding and decoding and to avail job opportunities in a number of detective agencies.
261	Self Learning Course: Analysis for SET/CSIR- NET Exam	PM20S2	Solving NET/SET based problems on Sequences and series, Convergence, Lim sup, Lim inf				To enhance problem solving skills and to enable the students to clear the CSIR-NET/SET Exams.