Lesson Plan
MCM DAV College for Women, Sector – 36A, Chandigarh
Monthly Teaching Plans-Odd Semester (Semester-V)
Session – 2025-26

Department: Mathematics

Class: B.Sc.-III (NM &Voc.)/B.A.-III
Subject: Analysis-I (Paper I)

Name of the Teacher: Dr Sonica, Ms Promila

Month	**Date**		**Topics to be covered**	**Academic Activity to be Undertaken**
	From	**To**		
July	24.07.2025	31.07.2025	Countable and Uncountable sets	Syllabus, Examination pattern discussed
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 30.07.2025				
August	01.08.2025	31.08.2025	Riemann Integral.	Syllabus, Examination pattern discussed, Doubt Session.
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 27.08.2025				
September	01.09.2025	30.09.2025	Reimann Integration: Conditions of integrability of continuous and monotonic functions, Properties of integrable functions, Continuity of the integral function, Mean Value Theorems, Beta and Gamma functions, Improper Integrals and their convergence	Doubt session, Assignments, revision of a few topics.
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 24.09.2025				
October	01.10.2025	31.10.2025	Comparison tests, Absolute and Conditional Convergence, Able's and Dirichlet's test, Frullani integral, Integral as a function of a parameter.	Doubt session, Assignments, Power Point Presentations
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 29.10.2025				
November	01.11.2025	13.11.2025	Continuity, derivability and integrability of a function of a parameter	Question papers discussed. Revision of a few topics.
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 12.11.2025				
End semester Examination 14.11.2025 to 26.12.2025				

Lesson Plan
MCM DAV College for Women, Sector – 36A, Chandigarh
Monthly Teaching Plans-Odd Semester (Semester-V)
Session – 2025-26

Department: Mathematics

Class: B.Sc.-III (NM &Voc.)/B.A.-III
Subject: Modern Algebra (Paper II)

Name of the Teacher: Dr Swati Sidana, Dr Sonica

Month	**Date**		**Topics to be covered**	**Academic Activity to be Undertaken**
	From	**To**		
July	24.07.2025	31.07.2025	Groups, Subgroups.	Syllabus, Examination pattern discussed
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 30.07.2025				
August	01.08.2025	31.08.2025	Lagrange's Theorem, Normal subgroups and Quotient Groups, Homomorphisms, Isomorphism Theorems.	Syllabus, Examination pattern discussed, Doubt Session.
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 27.08.2025				
September	01.09.2025	30.09.2025	Conjugate elements, Class equation, Permutation Groups, Alternating groups, Simplicity of n A , $n \geq 5$ (without proof).	Doubt session, Assignments, revision of a few topics.
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 24.09.2025				
October	01.10.2025	31.10.2025	Rings, Integral domains, Subrings and Ideals, Characteristic of a ring, Quotient Rings	Doubt session, Assignments, Power Point Presentations
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 29.10.2025				
November	01.11.2025	13.11.2025	Prime and Maximal Ideals, Homomorphisms, Isomorphism Theorems, Polynomial rings.	Question papers discussed. Revision of a few topics.
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 12.11.2025				
End semester Examination 14.11.2025 to 26.12.2025				

Lesson Plan
MCM DAV College for Women, Sector – 36A, Chandigarh
Monthly Teaching Plans-Odd Semester (Semester-V)
Session – 2025-26

Department: Mathematics

Class: B.Sc.-III (NM &Voc.)/B.A.-III
Subject: Probability Theory (Paper III)

Name of the Teacher: Dr Komal Bansal

Month	Date		Topics to be covered	Academic Activity to be Undertaken
	From	To		
July	24.07.2025	31.07.2025	Review of notion of Probability, conditional Probability and independence.	Syllabus, Examination pattern discussed, Doubt Session.
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 30.07.2025				
August	01.08.2025	31.08.2025	Bayes' Theorem. Random Variables: Concept, probability density function, cumulative distribution function, discrete and continuous random variables, expectation of random variable, mean, variance, moments of distribution.	Doubt session, Revision of a few topics and class test.
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 27.08.2025				
September	01.09.2025	30.09.2025	Moment generating function, skewness and kurtosis. Probability generating function. Discrete Random Variables: Bernoulli random variable, binomial random variable.	Doubt session, Assignments. Revision of a few topics.
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 24.09.2025				
October	01.10.2025	31.10.2025	Continuous Random Variables: Uniform random variable, exponential random variable, Beta random variable, Gamma random variable, Chi-square random variable, normal random variable. Negative binomial random variable, geometric random variable, Poisson random variable.	Doubt session, class test/Assignments.
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 29.10.2025				
November	01.11.2025	13.11.2025	Bivariate Random Variables : Joint distribution, joint and conditional distributions, Conditional Expectations,	Doubt session, Question papers discussed. Revision

			Independent random variables, the correlation coefficient, Bivariate normal distribution.	tests.
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 12.11.2025				
End semester Examination 14.11.2025 to 26.12.2025				

Lesson Plan
MCM DAV College for Women, Sector – 36A, Chandigarh
Monthly Teaching Plans-Even Semester (Semester-VI)
Session – 2025-26

Department: Mathematics

Class: B.Sc.-III (NM &Voc.)/B.A.-III
Subject: Analysis-II (Paper I)

Name of the Teacher: Dr Sonica, Ms Promila

Month	**Date**		**Topics to be covered**	**Academic Activity to be Undertaken**
	From	**To**		
January	10.01.2026	31.01.2026	Double and triple integrals	Syllabus, Examination pattern discussed, Doubt Session.
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 28.01.2026				
February	01.02.2026	28.02.2026	Vector Calculus, Sequences and Series of functions	Doubt session, Assignments, revision of a few topics.
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 25.02.2026				
March	01.03.2026	31.03.2026	Power Series and Fourier Series	
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 25.03.2026				
April	01.04.2026	25.04.2026	Revision	Doubt session, Assignments, Power Point Presentations, Question papers discussed. Revision of a few topics.
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 22.04.2026				
End semester Examination 27.04.2026 to 05.06.2026				

Lesson Plan
MCM DAV College for Women, Sector – 36A, Chandigarh
Monthly Teaching Plans-Even Semester (Semester-VI)
Session – 2025-26

Department: Mathematics

Class: B.Sc.-III (NM &Voc.)/B.A.-III
Subject: Linear Algebra (Paper II)

Name of the Teacher: Dr Swati Sidana, Dr Sonica

Month	**Date**		**Topics to be covered**	**Academic Activity to be Undertaken**
	From	**To**		
January	10.01.2026	31.01.2026	Vector Space : Definition and Examples of Vector Spaces, Subspaces, Algebra of subspaces, Linear span, Linear Iependence and independence of vectors	Syllabus, Examination pattern discussed, Doubt Session.
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 28.01.2026				
February	01.02.2026	28.02.2026	Basis and dimension of a vector space, Basis and dimension of subspace, Direct sums and complements Linear transformations, Rank and Nullity of a linear transformation, Vector space of linear transformations	Doubt session, Assignments, revision of a few topics.
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 25.02.2026				
March	01.03.2026	31.03.2026	Linear transformations and matrices, Change of basis. Characteristic roots and characteristic vectors, Algebraic and Geometric multiplicity of a characteristic value.	Doubt session, Assignments
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 25.03.2026				
April	01.04.2026	25.04.2026	Cayley-Hamilton theorem, Diagonalizable operators and matrices. Minimal polynomial of a linear operator (matrix)	Doubt session, Assignments, Power Point Presentations, Question papers discussed. Revision of a few topics.
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 22.04.2026				
End semester Examination 27.04.2026 to 05.06.2026				

Lesson Plan
MCM DAV College for Women, Sector – 36A, Chandigarh
Monthly Teaching Plans-Even Semester (Semester-VI)
Session – 2025-26

Department: Mathematics

Class: B.Sc.-III (NM &Voc.)/B.A.-III
Subject: Numerical Analysis (PAPER-III)

Name of the Teacher: Dr Komal Bansal

Month	Date		Topics to be covered	Academic Activity to be Undertaken
	From	To		
January	10.01.2026	31.01.2026	Solution of Equations: Bisection, Secant, Regula Falsi, Newton's Method, Roots of Polynomials. Interpolation techniques : Lagrange and Hermite Interpolation, Divided Differences, Difference Schemes.	Syllabus, Examination pattern discussed, Doubt Session.
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 28.01.2026				
February	01.02.2026	28.02.2026	Interpolation formulas using Difference. Numerical Differentiation. Numerical Quadrature: Newton-Cote's Formulas, Gauss Quadrature Formulas, Chebychev's Formulas. Linear Equations: Direct Methods for Solving Systems of Linear Equations (Gauss Elimination, LU Decomposition, Cholesky Decomposition).	Doubt session, Assignments, Class tests.
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 25.02.2026				
March	01.03.2026	31.03.2026	Iterative Methods (Jacobi, Gauss-Seidel, Relaxation Methods). The Algebraic Eigenvalue problem: Jacobi's Method, Givens' Method, Householder's Method, Power Method, QR Method, Lanczos' Method.	Doubt session, Assignments. Class tests.
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 25.03.2026				
April	01.04.2026	25.04.2026	Ordinary Differential Equations: Euler Method, Single-step Methods, Runge-Kutta's Method, Multi-step Methods	Doubt session and tests. Question papers discussed. Revision of the topics important from examination point of view.
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 22.04.2026				
End semester Examination 27.04.2026 to 05.06.2026				