

Lesson Plan	
Session 2024-25 Odd Semester	
Class : BA-I/B.Sc-I	Teacher Name : Mr. Anil Budania
Subject : Basic Algebra and Number Theory	Subject Code C24MAT101T
Date	Topics
22/7/2024-27/7/2024	Symmetric, Skew- symmetric, Hermitian and Skew- Hermitian matrices, Elementary operations on matrices
29/7/2024-3/8/2024	rank of a matrix. Row rank and column rank of a matrix.
5/8/2024-10/8/2024	Eigen values, eigenvectors and the characteristic equation of a matrix
12/8/2024-17/8/2024	Minimal polynomial of a matrix. Cayley Hamilton theorem and its use in finding the inverse of a matrix
19/8/2024-24/8/2024	Applications of matrices to a system of linear (both homogeneous and non-homogeneous) equations.
26/8/2024-31/8/2024	Theorems on consistency of a system of linear equations
2/9/2024-7/9/2024	Unitary and Orthogonal Matrices
9/9/2024-14/9/2024	Relations between the roots and coefficients of general polynomial equation in one variable
16/9/2024-16/9/2024	Solutions of polynomial equations having conditions on roots.
23/9/2024-28/9/2024	Common roots and multiple roots. Nature of the roots of an equations
30/9/2024-5/10/2024	Solutions of cubic equations (Cardon's method). Biquadratic equations and their solutions
7/10/2024-12/10/2024	Divisibility, G.C.D. (greatest common divisors), L.C.M. (least common multiple), problems based on prime numbers
14/10/2024-19/10/2024	Fundamental Theorem of Arithmetic. Linear Congruence, Euler's Theorem, Fermat's theorem
21/10/2024-26/10/2024	Wilson's theorem and its converse. Chinese Remainder Theorem.
Diwali Vacation	
4/11/2024-9/11/2024	Assignments
11/11/2024-16/11/2024	Tests
18/11/2024-22/11/2024	Revision

Signature

Lesson Plan	
Session 2024-25 Odd Semester	
Class : BA-II/B.Sc-II	Teacher Name : Mr. Anil Budania & Ms Sonal
Subject : Numerical Analysis	Subject Code : CML-307
Date	Topics
22/7/2024-27/7/2024	Finite Difference operators and their relations, difference table, finding the missing terms and effect of error in a difference tabular values
29/7/2024-3/8/2024	Interpolation with equal intervals: derivations of Newton's forward forward and backward interpolation formulae
5/8/2024-10/8/2024	derivations of Newton's divided difference & Lagrange's Interpolation formulae and their applications.
12/8/2024-17/8/2024	Central Difference interpolation formulae: derivations of Gauss's forward and Gauss's backward interpolation formulae, Sterling, Bessel formulae and their applications
19/8/2024-24/8/2024	Numerical Differentiation: Relation between difference operator and derivative operator, Derivative of a function using interpolation formulae
26/8/2024-31/8/2024	Numerical Integration: Newton-Cote's Quadrature formula, Trapezoidal rule, Simpson's one- third rule and Simpson's three-eighth rule, Chebychev formula, Gauss Quadrature formula
2/9/2024-7/9/2024	Solution of Algebraic and Transcendental equations: Bisection method, Regula-Falsi method, Secant method,
9/9/2024-14/9/2024	Newton-Raphson's method, Newton's iterative method for finding pth root of a number
16/9/2024-16/9/2024	Simultaneous linear algebraic equations: Gauss-elimination method, Gauss-Jordan method, Triangularization method
23/9/2024-28/9/2024	Iterative method, Jacobi's method, Gauss-Seidal's method, Relaxation method
30/9/2024-5/10/2024	Eigen Value Problems: Power method, Jacobi's method, Given's method, House-Holder's method
7/10/2024-12/10/2024	Numerical solution of ordinary differential equations: Single step methods-Picard's method. Taylor's series method
14/10/2024-19/10/2024	Euler's method, Modified Euler's method, Runge-Kutta Methods. Multiple step methods
21/10/2024-26/10/2024	Predictor-corrector method, Milne-Simpson's method

Diwali Vacation	
4/11/2024-9/11/2024	Assignments
11/11/2024-16/11/2024	Tests
18/11/2024-22/11/2024	Revision

Signature

Government College for Women, Hisar	
Lesson Plan	
Session 2024-25 Odd Semester	
Class : BA-II/B.Sc-II	Teacher Name : Mr. Anil Budania & Ms. Sonal
Subject : Advance Calculus	Subject Code : CML-306
Date	Topics
22/7/2024-27/7/2024	Continuous Functions
29/7/2024-3/8/2024	The Derivative
5/8/2024-10/8/2024	Mean Value Theorems
12/8/2024-17/8/2024	Indeterminate Forms
19/8/2024-24/8/2024	Limit and Continuity of Functions of Two Variables
26/8/2024-31/8/2024	Limit and Continuity of Functions of Two Variables
2/9/2024-7/9/2024	Partial Differentiation
9/9/2024-14/9/2024	Differentiability of Functions of Two Variables
16/9/2024-16/9/2024	Differentiability of Functions of Two Variables
23/9/2024-28/9/2024	Jacobians
30/9/2024-5/10/2024	Beta and Gamma Functions
7/10/2024-12/10/2024	Double Integrals
14/10/2024-19/10/2024	Triple Integrals
21/10/2024-26/10/2024	Dirichlet's Integral and Change of Order of Integration
Diwali Vacation	
4/11/2024-9/11/2024	Assignments
11/11/2024-16/11/2024	Tests
18/11/2024-22/11/2024	Revision

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Lesson Plan	
Session 2024-25 Odd Semester	
Class : B. COM.-I	Teacher Name : Dr. Renu
Subject : Business Mathematics (Minor Maths)	Subject Code : C24MIC103T(i)
Date	Topics
22/7/2024-27/7/2024	DEFINITION, LAWS, COMMON LOGARITHM
29/7/2024-3/8/2024	PARTS OF COMMON LOGARITHM- CHARACTERISTIC AND MANTISSA
5/8/2024-10/8/2024	ANTILOGARITHM
12/8/2024-17/8/2024	ANNUITY
19/8/2024-24/8/2024	COMPOUND INTEREST
26/8/2024-31/8/2024	APPLICATION OF COMPOUND INTEREST
2/9/2024-7/9/2024	DOUBT SESSIONS, PRACTICE OF QUESTIONS AND TEST
9/9/2024-14/9/2024	ARITHMETIC PROGRESSION
16/9/2024-21/9/2024	ARITHMETIC MEAN
23/9/2024-28/9/2024	GEOMETRIC PROGRESSION
30/9/2024-5/10/2024	GEOMETIC MEAN
7/10/2024-12/10/2024	DEFINITION AND TYPE OF MATRICES
14/10/2024-19/10/2024	ALGEBRA OF MATRICES
21/10/2024-26/10/2024	DETERMINANT
Diwali Vacation	
4/11/2024-9/11/2024	PROPERTIES OF DETERMINANT
11/11/2024-16/11/2024	DOUBT SESSIONS, PRACTICE OF QUESTIONS AND ASSIGNMENT
18/11/2024-22/11/2024	REVISION

Lesson Plan	
Session 2024-25 Odd Semester	
Class : BA-I/B.Sc-I	Teacher Name : Dr. Renu
Subject : Vector Calculus & Solid Geometry (SEC MATHS)	Subject Code : C24SEC129T(i)
Date	Topics
22/7/2024-27/7/2024	SCALAR AND VECTOR PRODUCT OF THREE AND FOUR VECTORS
29/7/2024-3/8/2024	RECIPROCAL SYSTEM OF VECTORS, DIFFERENTIAL OPERATOR
5/8/2024-10/8/2024	DIFFERENTIATION AND PARTIAL DIFFERENTIATION OF VECTOR FUNCTION
12/8/2024-17/8/2024	GRADIENT OF A SCALAR POINT FUNCTION
19/8/2024-24/8/2024	GEOMETRICAL INTERPRETATION OF GRADIENT
26/8/2024-31/8/2024	DIVERGENCE AND CURL OF SUMS AND PRODUCT AND THEIR RELATIVE IDENTITY
2/9/2024-7/9/2024	LAPLACIAN OPERATOR
9/9/2024-14/9/2024	DOUBT SESSIONS, PRACTICE OF QUESTIONS AND TEST
16/9/2024-21/9/2024	GENERAL EQUATION OF SPHERE
23/9/2024-28/9/2024	DIAMETRIC FORM OF SPHERE, CENTRE AND RADIUS OF SPHERE
30/9/2024-5/10/2024	PLANE SECTION OF SPHERE, SPHERE THROUGH A GIVEN CIRCLE
7/10/2024-12/10/2024	INTERSECTION OF TWO SPHERE
14/10/2024-19/10/2024	RADICAL PLANE OF TWO SPHERE
21/10/2024-26/10/2024	CYLINDER
Diwali Vacation	
4/11/2024-9/11/2024	RIGHT CIRCULAR AND ENVELOPING CYLINDER
11/11/2024-16/11/2024	DOUBT SESSIONS, PRACTICE OF QUESTIONS AND ASSIGNMENT
18/11/2024-22/11/2024	REVISION

Lesson Plan	
Session 2024-25 Odd Semester	
Class : BA-I/B.Sc-I	Teacher Name : Dr. Renu
Subject : Sets & Sequences (Minor Maths)	Subject Code : C24MIC115T
Date	Topics
22/7/2024-27/7/2024	REPRESENTATION OF SETS
29/7/2024-3/8/2024	EMPTY SETS , FINITE AND INFINITE SETS
5/8/2024-10/8/2024	SUBSETS, EQUAL SETS
12/8/2024-17/8/2024	POWER SETS, UNIVERSAL SETS
19/8/2024-24/8/2024	UNION AND INTERSECTION OF SETS
26/8/2024-31/8/2024	DIFFERENCE OF TWO SETS, COMPLEMENT OF SET
2/9/2024-7/9/2024	VENN DIAGRAM, DE-MORGAN'S LAW AND THEIR APPLICATION
9/9/2024-14/9/2024	DOUBT SESSIONS, PRACTICE OF QUESTIONS AND TEST
16/9/2024-21/9/2024	ARITHMETIC PROGRESSION
23/9/2024-28/9/2024	GEOMETRIC PROGRESSION
30/9/2024-5/10/2024	HARMONIC PROGRESSION
7/10/2024-12/10/2024	ARITHMETIC MEAN
14/10/2024-19/10/2024	GEOMETRIC MEAN
21/10/2024-26/10/2024	HARMONIC MEAN
Diwali Vacation	
4/11/2024-9/11/2024	RELATION BETWEEN A.M., G.M. AND H.M.
11/11/2024-16/11/2024	DOUBT SESSIONS, PRACTICE OF QUESTIONS AND ASSIGNMENT
18/11/2024-22/11/2024	REVISION

Lesson Plan	
Session 2024-25 Odd Semester	
Class : B.A. /B.SC. III	Teacher Name : Dr. Renu
Subject :Groups & Rings	
Date	Topics
22/7/2024-27/7/2024	Introduction to syllabus, definition of group, properties of group, examples of group
29/7/2024-3/8/2024	subgroup and criteria for subgroup and its examples, generation of groups, cyclic groups, and its properties
5/8/2024-10/8/2024	cosets, left and right coset, index of a group, coset decomposition, Lagrange's theorem and its consequences, normal subgroup, quotient group
12/8/2024-17/8/2024	introduction to homomorphism, isomorphism, automorphism and inner automorphism of a group
19/8/2024-24/8/2024	automorphism of cyclic group, permutation group, even and odd permutation, alternate group,
26/8/2024-31/8/2024	Cayley's theorem, centre of a group and derived group of a group
2/9/2024-7/9/2024	DOUBT SESSIONS, PRACTICE OF QUESTIONS AND TEST
9/9/2024-14/9/2024	introduction to ring, subring and its examples
16/9/2024-21/9/2024	integral domain and field, characteristics of a ring, ring homomorphism
23/9/2024-28/9/2024	ideal, principal ideal, prime ideal , maximal ideal
30/9/2024-5/10/2024	Quotient ring, field of quotients of an integral domain
7/10/2024-12/10/2024	Euclidean rings, polynomial ring, polynomials over the rational field
14/10/2024-19/10/2024	the Eisenstein's criterion of reducibility, polynomial rings over commutative rings
21/10/2024-26/10/2024	unique factorization domain, R unique factorization domain implies so is $R[x_1, x_2, \dots, x_n]$
Diwali Vacation	
4/11/2024-9/11/2024	revision and doubts of students regarding Unit-4, assignment and class test of unit-4
11/11/2024-16/11/2024	DOUBT SESSIONS, PRACTICE OF QUESTIONS AND ASSIGNMENT
18/11/2024-22/11/2024	REVISION



Lesson Plan	
Session 2024-25 Odd Semester	
Class : BA-III/B.Sc-III(NM)	Teacher Name :Dr Harsha
Subject : Number Theory And Trigonometry	Subject Code : CML-508(i) BAMH-303(i)
Date	Topics
22/7/2024-27/7/2024	Divisibility,G.C.D.,L.C.M.,Primes
29/7/2024-3/8/2024	Fundamental theorem of Arithmetic, Linear Congruence,Fermat's theorem
5/8/2024-10/8/2024	Wilson's theorem and its converse and Chinese Remainder theorem
12/8/2024-17/8/2024	Linear Diophantine equation in two variables, Complete Residue system and Reduced Residue system modulo m
19/8/2024-24/8/2024	Euler's function, Euler's Generalization of Fermat's theorem, Quadratic Residues
26/8/2024-31/8/2024	Legendre symbols,Lemma of Guass;Gauss Reciprocity Law
2/9/2024-7/9/2024	Greatest integral function,The Moebius Function and Moebius Inversion formula,Test
9/9/2024-14/9/2024	De-Moivre's theorem and its applications
16/9/2024-16/9/2024	Expansion of trigonometrical functions
23/9/2024-28/9/2024	Direct circular and hyperbolic functions
30/9/2024-5/10/2024	Properties of hyperbolic functions, assignment
7/10/2024-12/10/2024	Inverse circular functions and their properties
14/10/2024-19/10/2024	Inverse hyperbolic functions and their properties
21/10/2024-26/10/2024	Logarithm of a complex quantity ,test
Diwali Vacation	
4/11/2024-9/11/2024	Gregory 's series
11/11/2024-16/11/2024	Summation of trigonometric series
18/11/2024-22/11/2024	Revision

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Lesson Plan	
Session 2024-25 Odd Semester	
Class : BA-III/B.Sc-III(NM)	Teacher Name : Dr. Harsha
Subject: Sequence and Series	Subject Code : CML-507(i) BAMH-302(i)
Date	Topics
22/7/2024-27/7/2024	Boundness of the set of real numbers,least upper bound
29/7/2024-3/8/2024	Greatest lower bound of a set, neighborhoods,interior points
5/8/2024-10/8/2024	Isolated points, limit points, open sets, closed set
12/8/2024-17/8/2024	Interior of a set, closure of a set in real numbers and their properties
19/8/2024-24/8/2024	Real sequences and their convergence,theorems on limit of sequence
26/8/2024-31/8/2024	Bounded and monotonic sequences,Cauchy Sequence
2/9/2024-7/9/2024	Cauchy general principle of convergence,subsequences,subsequential limits,Test
9/9/2024-14/9/2024	Convergence and divergence of infinite series, comparison tests of positive terms infinite series
16/9/2024-16/9/2024	Cauchy 's general principle of convergence, convergence and divergence of geometric series
23/9/2024-28/9/2024	Hyper Harmonic series,D'Alembert's ratiotest,Raabe's test, Logarithmic test,De Morgan and Bertrand 's test
30/9/2024-5/10/2024	Cauchy 's nth root test,Gauss test, Cauchy's integral test, Cauchy's condensation test
7/10/2024-12/10/2024	Leibnitz's test,absolute and conditional convergence,Abel's lemma, Abel's test,Dirichlet's test, Assignment
14/10/2024-19/10/2024	Fourier exansion of piecewise monotonic functions, properties of Fourier coefficients,Dirhlet's condition,Parseval's identity for Fourier series, Fourier series of even and odd functions,half range series,Change of intervals
21/10/2024-26/10/2024	Darboux's theorm and condition of existence of Reimann's integral, integrability of continuous, monotonic and discontinuous functions,test
Diwali Vacation	
4/11/2024-9/11/2024	Properties of integrable functions, continuity and differentiability of integrable functions

11/11/2024-16/11/2024	Primitive,the fundamental theorem of integral calculus ,Mean value theorems of integral calculus
18/11/2024-22/11/2024	Revision

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Lesson Plan	
Session 2024-25 Odd Semester	
Class : BA-III/B.Sc-III	Teacher Name : Ms Sonal
Subject: Sequence and Series	Subject Code : CML-507(i) BAMH-302(i)
Date	Topics
22/7/2024-27/7/2024	Boundness of the set of real numbers,least upper bound
29/7/2024-3/8/2024	Greatest lower bound of a set, neighborhoods,interior points
5/8/2024-10/8/2024	Isolated points, limit points, open sets, closed set
12/8/2024-17/8/2024	Interior of a set, closure of a set in real numbers and their properties
19/8/2024-24/8/2024	Real sequences and their convergence,theorems on limit of sequence
26/8/2024-31/8/2024	Bounded and monotonic sequences,Cauchy Sequence
2/9/2024-7/9/2024	Cauchy general principle of convergence,subsequences,subsequential limits,Test
9/9/2024-14/9/2024	Convergence and divergence of infinite series, comparison tests of positive terms infinite series
16/9/2024-16/9/2024	Cauchy 's general principle of convergence, convergence and divergence of geometric series
23/9/2024-28/9/2024	Hyper Harmonic series,D'Alembert's ratiotest,Raabe's test, Logarithmic test,De Morgan and Bertrand 's test
30/9/2024-5/10/2024	Cauchy 's nth root test,Gauss test, Cauchy's integral test, Cauchy's condensation test
7/10/2024-12/10/2024	Leibnitz's test,absolute and conditional convergence,Abel's lemma, Abel's test,Dirichlet's test, Assignment
14/10/2024-19/10/2024	Fourier exansion of piecewise monotonic functions, properties of Fourier coefficients,Dirhlet's condition,Parseval's identity for Fourier series, Fourier series of even and odd functions,half range series,Change of intervals
21/10/2024-26/10/2024	Darboux's theorm and condition of existence of Reimann's integral, integrability of continuous, monotonic and discontinuous functions,test
Diwali Vacation	
4/11/2024-9/11/2024	Properties of integrable functions, continuity and differentiability of integrable functions

11/11/2024-16/11/2024	Primitive,the fundamental theorem of integral calculus ,Mean value theorems of integral calculus
18/11/2024-22/11/2024	Revision

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Lesson Plan	
Session 2024-25 Odd Semester	
Class : B.A. /B.SC. III	Teacher Name : Dr. Harsha
Subject :Groups & Rings	
Date	Topics
22/7/2024-27/7/2024	Introduction to syllabus, definition of group, properties of group, examples of group
29/7/2024-3/8/2024	subgroup and criteria for subgroup and its examples, generation of groups, cyclic groups, and its properties
5/8/2024-10/8/2024	cosets, left and right coset, index of a group, coset decomposition, Lagrange's theorem and its consequences, normal subgroup, quotient group
12/8/2024-17/8/2024	introduction to homomorphism, isomorphism, automorphism and inner automorphism of a group
19/8/2024-24/8/2024	automorphism of cyclic group, permutation group, even and odd permutation, alternate group,
26/8/2024-31/8/2024	Cayley's theorem, centre of a group and derived group of a group
2/9/2024-7/9/2024	DOUBT SESSIONS, PRACTICE OF QUESTIONS AND TEST
9/9/2024-14/9/2024	introduction to ring, subring and its examples
16/9/2024-21/9/2024	integral domain and field, characteristics of a ring, ring homomorphism
23/9/2024-28/9/2024	ideal, principal ideal, prime ideal , maximal ideal
30/9/2024-5/10/2024	Quotient ring, field of quotients of an integral domain
7/10/2024-12/10/2024	Euclidean rings, polynomial ring, polynomials over the rational field
14/10/2024-19/10/2024	the Eisenstein's criterion of reducibility, polynomial rings over commutative rings
21/10/2024-26/10/2024	unique factorization domain, R unique factorization domain implies so is $R \{x_1, x_2, \dots, x_n\}$
Diwali Vacation	
4/11/2024-9/11/2024	revision and doubts of students regarding Unit-4, assignment and class test of unit-4
11/11/2024-16/11/2024	DOUBT SESSIONS, PRACTICE OF QUESTIONS AND ASSIGNMENT
18/11/2024-22/11/2024	REVISION

