

GOVERNMENT COLLEGE FOR WOMEN, HISAR

Lesson Plan

Mathematics

Session 2025-26 (Odd Semester)

Class: BA-I/B.Com-I	Semester : I
Internal Marks:20	Subject : Basic Algebra and Number Theory
External Marks:50	Paper Code : C21MAT1011
Total marks:70	Teacher Name Dr Harsha
Date	Topics to be covered
14.07.2025-19.07.2025	Symmetric, Skew-symmetric, Hermitian and Skew-Hermitian, Rank of a matrix, Inverse of a matrix
21.07.2025-26.07.2025	Row rank and column rank of a matrix and normal form
28.07.2025-02.08.2025	Eigen values, eigenvectors and the characteristic equation of a matrix, Minimal polynomial of a matrix
04.08.2025-09.08.2025	Cayley Hamilton theorem and its use in finding inverse of a matrix
11.08.2025-16.08.2025	Application of matrices to a system of linear (both homogeneous and non-homogeneous) equations
18.08.2025-23.08.2025	Theorems on consistency of a system of linear equations
25.08.2025-30.08.2025	Unitary and Orthogonal Matrices
01.09.2025-06.09.2025	Relations between the roots and coefficients of general polynomial equation in one variable
08.09.2025-13.09.2025	Solution of polynomial equations having conditions on roots
15.09.2025-20.09.2025	Common roots and multiple roots
22.09.2025-27.09.2025	Nature of the roots of an equation
29.09.2025-04.10.2025	Tests, Assignments
06.10.2025-11.10.2025	Solution of cubic equations (Cardan's method)
13.10.2025-18.10.2025	Biquadratic equations and their solutions, Ferrari's method
27.10.2025-01.11.2025	Divisibility, G.C.D. (greatest common divisor), L.C.M. (least common multiple)
03.11.2025-08.11.2025	Problems based on prime numbers, Fundamental Theorem of Arithmetic
10.11.2025-15.11.2025	Linear Congruence, Euler's Theorem, Fermat's theorem
17.11.2025-20.11.2025	Wilson's theorem and its converse, Chinese Remainder Theorem
	Doubts, revision



Signature



Principal
Government College for Women
Hisar

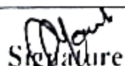
GOVERNMENT COLLEGE FOR WOMEN, HISAR

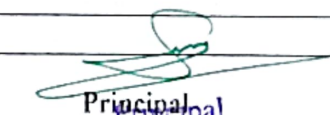
Lesson Plan

Mathematics

Session 2025-26 (Odd Semester)

Class: BA-I/B.Com-I	Semester : I
Internal Marks:10	Subject : Basic Algebra and Number Theory Lab
External Marks:20	Paper Code : C24MAT101P
Total marks:30	Teacher Name Dr Harsha
Date	Topics to be covered
14.07.2025-19.07.2025	Introduction to PYTHON Language, The history of PYTHON Language
21.07.2025-26.07.2025	Learn basic commands and applications, use basic operators and function and explore the different menus in PYTHON Language.
28.07.2025-02.08.2025	Learn Keywords/Reserved words and the use of predefined functions in PYTHON Language
04.08.2025-09.08.2025	Basic programs for beginners-I
11.08.2025-16.08.2025	Basic programs for beginners-II
18.08.2025-23.08.2025	Basic programs for beginners-III
25.08.2025-30.08.2025	Basic programs for beginners-IV
01.09.2025-06.09.2025	Programs on matrices
08.09.2025-13.09.2025	To find the value of a determinant of matrix of order up to four. To compute inverse of square matrix of order up to four.
15.09.2025-20.09.2025	1. To find roots of quadratic, cubic and biquadratic equations. 2. To find multiple roots of algebraic equations.
22.09.2025-27.09.2025	To find Eigen values and Eigen vectors of square matrix of order up to four. To solve system of linear equations.
29.09.2025-04.10.2025	To discuss nature of roots of an equation and to learn the concept of divisibility in integers. To find the number of divisors of an integer.
06.10.2025-11.10.2025	1. To find GCD and LCM of two integers. 2. To find the remainder of an integer when divided by the integer.
13.10.2025-18.10.2025	To find the integers x, y such that $d = ax + by$ where d is the g.c.d. of a and b . To solve problem based on the concept of primes and to solve problems based of the concept of linear congruence
27.10.2025-01.11.2025	Tests and Assignments
03.11.2025-08.11.2025	Revision
10.11.2025-15.11.2025	Revision
17.11.2025-20.11.2025	Revision


Signature


Principal
Govt. College for Women
HISAR

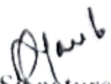
GOVERNMENT COLLEGE FOR WOMEN, HISAR

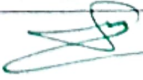
Lesson Plan

Mathematics

Session 2025-26 (Odd Semester)

Class: BA-I/B.Com-I	Semester : I
Internal Marks:20	Subject : <u>Vector Calculus and Solid Geometry</u>
External Marks:50	Paper Code : C24SEC129T(i)
Total marks:70	Teacher Name Dr Harsha
Date	Topics to be covered
14.07.2025-19.07.2025	1. Scalar and vector products of three and four vectors. 2.. 3. 4.
21.07.2025-26.07.2025	Reciprocal systems of vectors. Differential operators
28.07.2025-02.08.2025	Differentiation and partial differentiation of vector functions
04.08.2025-09.08.2025	Gradient of a scalar point function
11.08.2025-16.08.2025	Geometrical interpretation of gradient. Divergence
18.08.2025-23.08.2025	Curl of sums and product
25.08.2025-30.08.2025	Relative identities Laplacian operator
01.09.2025-06.09.2025	General equation of sphere
08.09.2025-13.09.2025	Diametric form of sphere, Center and radius of sphere, .
15.09.2025-20.09.2025	Sphere-Continued
22.09.2025-27.09.2025	Sphere-Continued
29.09.2025-04.10.2025	Plane section of a sphere
06.10.2025-11.10.2025	Sphere through a given circle.
13.10.2025-18.10.2025	Intersection of two spheres, Radical plane of two spheres
27.10.2025-01.11.2025	Cylinder, Right circular cylinder
03.11.2025-08.11.2025	Enveloping cylinder
10.11.2025-15.11.2025	Test and assignments
17.11.2025-20.11.2025	Doubts and revision


Signature


Principal
Govt. College for Women,
HISAR

GOVERNMENT COLLEGE FOR WOMEN, HISAR

Lesson Plan
Mathematics
Session 2025-26 (Odd Semester)

Class: BA-I/B.Com-I	Semester : I
Internal Marks:10	Subject : <u>Vector Calculus and Solid Geometry Lab</u>
External Marks:20	Paper Code : C24SEC129P(i)
Total marks:30	Teacher Name Dr Harsha
Date	Topics to be covered
14.07.2025-19.07.2025	1. Scalar and vector products of three and four vectors. 2., 3. 4.
21.07.2025-26.07.2025	Reciprocal systems of vectors. Differential operators
28.07.2025-02.08.2025	Differentiation and partial differentiation of vector functions.
04.08.2025-09.08.2025	Gradient of a scalar point function
11.08.2025-16.08.2025	Geometrical interpretation of gradient. Divergence
18.08.2025-23.08.2025	Curl of sums and product
25.08.2025-30.08.2025	Relative identities Laplacian operator
01.09.2025-06.09.2025	General equation of sphere
08.09.2025-13.09.2025	Diametric form of sphere. Center and radius of sphere. .
15.09.2025-20.09.2025	Sphere-Continued
22.09.2025-27.09.2025	Sphere-Continued
29.09.2025-04.10.2025	Plane section of a sphere
06.10.2025-11.10.2025	Sphere through a given circle,
13.10.2025-18.10.2025	Intersection of two spheres. Radical plane of two spheres
27.10.2025-01.11.2025	Cylinder, Right circular cylinder
03.11.2025-08.11.2025	Enveloping cylinder
10.11.2025-15.11.2025	Test and assignments
17.11.2025-20.11.2025	Doubts and revision


Signature


Principal
Govt. College for Women
HISAR

GOVERNMENT COLLEGE FOR WOMEN, HISAR

Lesson Plan

Mathematics

Session 2025-26 (Odd Semester)

Class: BA-I/B.Com-I	Semester : III
Internal Marks:20	Subject : Differential Equations
External Marks:50	Paper Code : C24MAT301T
Total marks:70	Teacher Name Dr Harsha
Date	Topics to be covered
14.07.2025-19.07.2025	1. Geometrical meaning of a differential equation. 2. 3. Homogeneous linear ordinary differential equations. Equations reducible to homogeneous.
21.07.2025-26.07.2025	1. Exact differential equations, - related problems and solutions
28.07.2025-02.08.2025	integrating factors-I
04.08.2025-09.08.2025	Integrating factors-II
11.08.2025-16.08.2025	Integrating factors-III
18.08.2025-23.08.2025	First order higher degree equations solvable for x,y,p -I
25.08.2025-30.08.2025	First order higher degree equations solvable for x,y,p -II
01.09.2025-06.09.2025	First order higher degree equations solvable for x,y,p -III
08.09.2025-13.09.2025	Lagrange's equations, Clairaut's equations. Equations reducible to Clairaut's form
15.09.2025-20.09.2025	Singular solutions. Linear differential equations with constant coefficients
22.09.2025-27.09.2025	Ordinary simultaneous differential equations. Solution of simultaneous differential equations
29.09.2025-04.10.2025	Partial differential equations: Formation, order and degree. Linear and Non-Linear Partial differential equations of the first order. Complete solution, singular solution, General solution.
06.10.2025-11.10.2025	Solution of Lagrange's linear equations, Charpit's general method of solution.
13.10.2025-18.10.2025	Linear partial differential equations of second and higher orders, Linear and non-linear homogeneous and non-homogeneous equations with constant coefficients
27.10.2025-01.11.2025	Partial differential equations with variable coefficients reducible to equations with constant coefficients. Complimentary functions and particular integrals, Tests and assignments
03.11.2025-08.11.2025	Classification of linear partial differential equations of second order, hyperbolic, parabolic and elliptic types.
10.11.2025-15.11.2025	Reduction of second order linear partial differential equations to Canonical (Normal) forms and their solutions. Cauchy's problem for second order partial differential equations.
17.11.2025-20.11.2025	Characteristic equations and characteristic curves of second order partial differential equations, doubts and Revision

Signature

Principal

Govt. College for Women,
HISAR

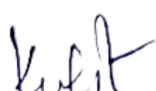
Government College for Women, Hisar

Lesson Plan

Session 2025-26 (Odd Semester)

Class : BA-II/B.Sc-II	Semester : III
Subject : Differential Equations Lab	Paper Code: C24MAT301P
External Marks: 20	Total Marks: 30
Internal Marks: 10	Teacher Name: Dr. Kuldeep Singh

Month & Week	Topics
(August) 1 st week	Basic Commands and symbols to write differential equations
(August) 2 nd week	Commands used to find the derivative and integration of a function
(August) 3 rd week	To find the Difference among general solution, singular solution and particular solution.
(August) 4 th week	To find the Difference among general solution, singular solution and particular solution.
(September) 1 st week	To find the solutions of first and second order differential equations.
(September) 2 nd week	To find the solutions of first and second order differential equations.
(September) 3 rd week	The plotting of family solutions of differential equations of first, second and third order
(September) 4 th week	The plotting of family solutions of differential equations of first, second and third order
(October) 1 st week	To find the solutions of linear differential equations of second order using built in functions of Python software
(October) 2 nd week	To find the solution of differential equations using method of variation of parameters.
(October) 3 rd week	To find numerical solutions of a first order ODE using built in functions of Python.
(November) 1 st week	To find numerical solutions of a first order PDE using built in functions of Python.
(November) 2 nd week	Revision
(November) 3 rd week	Revision
(November) 4 th week	Test


Dr. Kuldeep Singh


Principal
Govt. College for Women
HISAR

Government College for Women, Hisar

Lesson Plan

Session 2025-26 (Odd Semester)

Class : BA/B.Sc-II	Semester : III
Subject : Mathematical Statistics	Paper Code: <u>C24MIC315T</u>
External Marks: 70	Total Marks: 100
Internal Marks: 30	Teacher Name: Dr. Kuldeep Singh
Month & Week	Topics
(August) 2 nd week	Introduction to Statistics -Definition and Importance. Applications of Statistics in Real Life (e.g. business, health, sports, education).
(August) 3 rd week	Types of Data: Qualitative vs. Quantitative Data. Discrete vs. continuous
(August) 4 th week	Data, Primary and Secondary Data. Data Collection and Organization Methods of Data Collection.
(September) 1 st week	Surveys, Experiments, and Observations
(September) 2 nd week	Sampling Techniques (Random, Stratified, Systematic).
(September) 3 rd week	Organizing Data: Frequency Distribution Tables.
(September) 4 th week	Grouped and ungrouped Data. Tally Marks.
(October) 1 st week	Data Representation :-Graphical Representation of Data: Bar Graphs, Pie Charts.
(October) 2 nd week	Line Graphs, Histograms and Frequency Polygons. Interpretation of Graphs and Charts.
(October) 3 rd week	Measures of Central Tendency: Mean (Arithmetic Average): Calculation for Ungrouped and Grouped Data.
(November) 1 st week	Median: Finding the Middle Value for Ungrouped and Grouped Data.
(November) 2 nd week	Mode: Identifying the Most Frequent Value. Measures of Dispersion:- Range- Definition and its Calculations.
(November) 3 rd week	Variance and Standard Deviation: Concept and Basic Calculation for Ungrouped Data.
(November) 4 th week	Interquartile Range (IQR)-Understanding Quartiles and Spread of Data.

Dr. Kuldeep Singh

Principal
Govt. College for Women
HISAR

Government College for Women, Hisar

Lesson Plan

Session 2025-26 (Odd Semester)

Class : BA/B.Sc-III	Semester : V
Subject : Group and Rings	Paper Code, <u>CML-506(i) and BAMI-301(i)</u>
External Marks: 80	Total Marks: 100
Internal Marks: 20	Teacher Name: Dr. Kuldeep Singh
Month & Week	Topics
(August) 1 st week	Definition of a group. Example of abelian and nonabelian groups.
(August) 2 nd week	The group Z_n of integers under addition modulo n and the group of $U(n)$ of units under multiplication modulo n
(August) 3 rd week	Generator of a group. Cyclic groups
(August) 4 th week	Permutations groups, Alternating groups, Cayley's theorem
(September) 1 st week	Subgroups and Subgroup criteria, Cosets, Left and right cosets
(September) 2 nd week	properties of cosets
(September) 3 rd week	Index of a sub-group. Coset decomposition, Lagrange's theorem on groups and its consequence
(September) 4 th week	Normal subgroups, Quotient groups, Homomorphisms, isomorphisms, automorphisms on group
(October) 1 st week	Center of a group and class equation of a group and derived group of a group.
(October) 2 nd week	Introduction to Rings, Subrings, Integral domains and Fields, Characteristics of a ring. Ring homomorphisms
(October) 3 rd week	Theorems on Ring homomorphisms, Ideals (Principal, Prime and Maximal) and Quotient rings, Field of quotients of an integral domain
(November) 1 st week	Euclidean rings, Polynomial rings, Polynomials over the rational field.
(November) 2 nd week	The Eisenstein's criterion of irreducibility of polynomials over the field of rational numbers
(November) 3 rd week	Polynomial rings over commutative rings.
(November) 4 th week	Principal ideal domain, Unique factorization domain.


Dr. Kuldeep Singh


Principal
Govt. College for Women,
HISAR

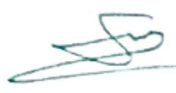
Government College for Women, Hisar

Lesson Plan

Session 2025-26 (Odd Semester)

Class : BA/B.Sc-III	Semester : V
Subject : Sequence and Series	Paper Code: CML-507(i) and BAMH-302(i)
External Marks: 80	Total Marks: 100
Internal Marks: 20	Teacher Name: Dr. Kuldeep Singh
Month & Week	Topics
(August) 1 st week	Boundedness of the set of real numbers; least upper bound, greatest lower bound of a set, neighborhoods, interior points, isolated points; limit points.
(August) 2 nd week	open sets, closed set, interior of a set, closure of a set in real numbers and their properties
(August) 3 rd week	Sequence: Real Sequences and their convergence, Theorem on limits of sequence, Bounded and monotonic sequences, Cauchy's sequence.
(August) 4 th week	Cauchy general principle of convergence, sub sequence, subsequential limits.
(September) 1 st week	Infinite series: Convergence and divergence of Infinite Series, Comparison Tests of positive terms Infinite series, Cauchy's general principle of Convergence of series,
(September) 2 nd week	Convergence and divergence of geometric series, Hyper Harmonic series or p-series
(September) 3 rd week	Infinite series: D'Alembert's ratio test, Raabe's test, Logarithmic test,
(September) 4 th week	Cauchy's Nth root test, Gauss Test, Cauchy's Integral test, Cauchy's condensation test
(October) 1 st week	Alternating series: Leibnitz's test, absolute and conditional convergence. Arbitrary series: Abel's lemma, Abel's test, Dirichlet's test
(October) 2 nd week	Fourier's series: Fourier expansion of piecewise monotonic functions, Properties of Fourier Co-efficients, Dirichlet's conditions
(October) 3 rd week	Parseval's identity for Fourier series, Fourier series for even and odd functions, Half range series, Change of Intervals
(November) 1 st week	Riemann integral: Definition and examples. Darboux's Theorem and condition of existence of Riemann's integral
(November) 2 nd week	Integrability of continuous, monotonic functions and discontinuous functions. Properties integrable functions
(November) 3 rd week	Continuity and differentiability of integrable functions. Primitive, The Fundamental theorem of integral calculus
(November) 4 th week	Mean value theorems of integral calculus.


Dr. Kuldeep Singh


Principal
Govt. College for Women
HISAR

GOVERNMENT COLLEGE FOR WOMEN, HISAR

Lesson Plan

Mathematics

Session 2025-26 (Odd Semester)

Class: BA-II/B.Com-II	Semester : III
Internal Marks:25	Subject : Application of Mathematical Statistics in daily life
External Marks:50	Paper Code: C24MDC319T
Total marks:75	Teacher Name: Anil Kumar
Date	Topics to be covered
14.07.2025-19.07.2025	Internship Training
21.07.2025-26.07.2025	Internship Training
28.07.2025-02.08.2025	Unit-I Introduction to Statistics:-Definition and Importance
04.08.2025-09.08.2025	Applications of Statistics in Real Life (e.g., business, health, sports, education)
11.08.2025-16.08.2025	Types of Data: Qualitative vs. Quantitative Data, Discrete vs. continuous Data, Primary and Secondary Data
18.08.2025-23.08.2025	Organizing Data: Frequency Distribution Tables Ungrouped Data.
25.08.2025-30.08.2025	Organizing Data: Frequency Distribution Tables, Grouped Data.
01.09.2025-06.09.2025	Unit-II Measures of Central Tendency:-Mean (Arithmetic Average): Calculation for Ungrouped and Grouped Data.
08.09.2025-13.09.2025	Median: Finding the Middle Value for Ungrouped and Grouped Data
15.09.2025-20.09.2025	Mode: Identifying the Most Frequent Value
22.09.2025-27.09.2025	Relation between Mean, Median and Mode
29.09.2025-04.10.2025	Unit-III Measures of Dispersion:- Range -Definition and Calculation
06.10.2025-11.10.2025	Variance and Standard Deviation- Concept and Basic Calculation for Ungrouped Data
13.10.2025-18.10.2025	Variance and Standard Deviation- Concept and Basic Calculation for Ungrouped Data
27.10.2025-01.11.2025	Variance and Standard Deviation- Concept and Basic Calculation for Ungrouped Data
03.11.2025-08.11.2025	Interquartile Range (IQR)- Understanding Quartiles and Spread of Data
10.11.2025-15.11.2025	Interquartile Range (IQR)- Understanding Quartiles and Spread of Data
17.11.2025-20.11.2025	Interquartile Range (IQR)- Understanding Quartiles and Spread of Data


Signature


Principal

GOVERNMENT COLLEGE FOR WOMEN, HISAR

Lesson Plan

Mathematics

Session 2025-26 (Odd Semester)

Class: BA-I/B.Com-I	Semester : I
Internal Marks:25	Subject : Mathematics for Everyday Life
External Marks:50	Paper Code : C24MDC119T
Total marks:75	Teacher Name: Anil Kumar
Date	Topics to be covered
14.07.2025-19.07.2025	UNIT-I Number system
21.07.2025-26.07.2025	LCM and HCF of numbers
28.07.2025-02.08.2025	Decimal fractions
04.08.2025-09.08.2025	Square and cube roots
11.08.2025-16.08.2025	Average, Problems on Numbers, problems on Ages.
18.08.2025-23.08.2025	Surds and Indices, Arithmetic progression
25.08.2025-30.08.2025	Geometric progression with their simple and basic practical applications, Number series completion.
01.09.2025-06.09.2025	Unit - II Percentage, Profit and Loss
08.09.2025-13.09.2025	Ratio, Proportion and Variation, Partnership
15.09.2025-20.09.2025	Problems based on the topics of Calendar and Clocks
22.09.2025-27.09.2025	Average, Average speed problems
29.09.2025-04.10.2025	Unit - III Time and Work, Time and Distance
06.10.2025-11.10.2025	Area and perimeter of triangles and circle,
13.10.2025-18.10.2025	Area and perimeter of quadrilaterals (Square, Rectangle)
27.10.2025-01.11.2025	Area and perimeter of quadrilaterals (Parallelogram, Rhombus, Trapezium)
03.11.2025-08.11.2025	Volume and surface area of Cube, Cuboid.
10.11.2025-15.11.2025	Volume and surface area of Cylinder.
17.11.2025-20.11.2025	Volume and surface area of Sphere.



Signature



Principal

GOVERNMENT COLLEGE FOR WOMEN, HISAR

Lesson Plan

Mathematics

Session 2025-26 (Odd Semester)

Class: B.Com-I	Semester : I
Internal Marks:15	Subject : Business Mathematics
External Marks: 35	Paper Code: C24MIC103T(i)
Total marks:50	Teacher Name: Anil Kumar
Date	Topics to be covered
14.07.2025-19.07.2025	Unit-I Logarithms: Definition
21.07.2025-26.07.2025	Laws, Common Logarithms
28.07.2025-02.08.2025	Parts of common logarithms – Characteristics, Mantissa
04.08.2025-09.08.2025	Anti-logarithms:
11.08.2025-16.08.2025	Method of finding anti-logarithm
18.08.2025-23.08.2025	Annuity
25.08.2025-30.08.2025	Compound Interest
01.09.2025-06.09.2025	Unit-II Sequence and Series
08.09.2025-13.09.2025	Arithmetical Progression – General term
15.09.2025-20.09.2025	Sum of finite numbers, Arithmetic mean
22.09.2025-27.09.2025	Geometrical Progression - n th term of G.P
29.09.2025-04.10.2025	Sum of first n terms
06.10.2025-11.10.2025	Sum to infinity, Geometric mean
13.10.2025-18.10.2025	Matrices: Definition of matrices
27.10.2025-01.11.2025	Types of matrices
03.11.2025-08.11.2025	Algebra of matrices
10.11.2025-15.11.2025	Determinants
17.11.2025-20.11.2025	Properties of determinants


Signature


Principal

GOVERNMENT COLLEGE FOR WOMEN, HISAR

Lesson Plan

Mathematics

Session 2025-26 (Odd Semester)

Class : BA-I/B.Sc-I(LS)	Semester : I
Internal Marks:15	Subject : Sets and Sequences
External Marks: 35	Paper Code: C24MIC115T
Total marks:50	Teacher Name: Anil Kumar
Date	Topics to be covered
14.07.2025-19.07.2025	UNIT-I Sets and their representations
21.07.2025-26.07.2025	Empty set, Finite and infinite sets
28.07.2025-02.08.2025	Subsets, Equal sets
04.08.2025-09.08.2025	Power sets, Universal set
11.08.2025-16.08.2025	Union and intersection of sets
18.08.2025-23.08.2025	Difference of two sets
25.08.2025-30.08.2025	Complement of a set
01.09.2025-06.09.2025	Venn diagram
08.09.2025-13.09.2025	De-Morgan's laws
15.09.2025-20.09.2025	De-Morgan's laws and their applications
22.09.2025-27.09.2025	Unit-II Arithmetic progression
29.09.2025-04.10.2025	Geometric progression
06.10.2025-11.10.2025	Harmonic progression
13.10.2025-18.10.2025	Arithmetic mean
27.10.2025-01.11.2025	Geometric mean (G.M.),
03.11.2025-08.11.2025	Harmonic mean (H.M.)
10.11.2025-15.11.2025	Relation between A.M., G.M. and H.M.
17.11.2025-20.11.2025	Revision


Signature


Principal

GOVERNMENT COLLEGE FOR WOMEN, HISAR

Lesson Plan

Mathematics

Session 2025-26 (Odd Semester)

Class : BA-II/B.Sc-II(PS)	Semester : III
Internal Marks:15	Subject : Special Functions and Transform Techniques
External Marks: 35	Paper Code: C24SEC329T(i)
Total marks:50	Teacher Name: Anil Kumar
Date	Topics to be covered
14.07.2025-19.07.2025	Internship Training
21.07.2025-26.07.2025	Internship Training
28.07.2025-02.08.2025	Unit -I Series solution of differential equations – Power Series Method
04.08.2025-09.08.2025	Series solution of differential equations – Power Series Method
11.08.2025-16.08.2025	Series solution of differential equations – Power Series Method
18.08.2025-23.08.2025	Series solution of differential equations – Power Series Method
25.08.2025-30.08.2025	Bessel equations and their solutions
01.09.2025-06.09.2025	Bessel equations and their solutions
08.09.2025-13.09.2025	Legendre equations and their solutions
15.09.2025-20.09.2025	Legendre equations and their solutions
22.09.2025-27.09.2025	Hermite equations and their solutions
29.09.2025-04.10.2025	Unit-II Laplace Transforms
06.10.2025-11.10.2025	Existence theorem for Laplace transforms
13.10.2025-18.10.2025	Linearity of the Laplace transforms, Shifting theorems
27.10.2025-01.11.2025	Laplace transforms of derivatives and integrals
03.11.2025-08.11.2025	Differentiation and integration of Laplace transforms
10.11.2025-15.11.2025	Differentiation and integration of Laplace transforms
17.11.2025-20.11.2025	Revision


Signature


Principal

GOVERNMENT COLLEGE FOR WOMEN, HISAR

Lesson Plan

Mathematics

Session 2025-26 (Odd Semester)

Class : BA-II/B.Sc-II(PS)	Semester : III
Internal Marks:10	Subject : Special Functions and Transform Techniques Lab
External Marks: 15	Paper Code: C24SEC329P
Total marks: 25	Teacher Name: Anil Kumar
Date	Topics to be covered
14.07.2025-19.07.2025	Internship Training
21.07.2025-26.07.2025	Internship Training
28.07.2025-02.08.2025	Internship Training
04.08.2025-09.08.2025	Practical problems for plotting of the Bessel's functions of first kind of order 0
11.08.2025-16.08.2025	Practical problems for plotting of the Bessel's functions of first kind of order 0 to 3
18.08.2025-23.08.2025	Practical problems to find zeros of Bessel's function of first and second kind.
25.08.2025-30.08.2025	Practical problems to find zeros of first derivative of Bessel function of first kind.
01.09.2025-06.09.2025	Practical problems to find zeros of first derivative Legendre's polynomial.
08.09.2025-13.09.2025	Practical problems for plotting of Legendre polynomial for $n=1$ to 5 in the interval $[0,1]$
15.09.2025-20.09.2025	Practical problems for plotting of Legendre polynomial for $n=1$ to 5 in the interval $[0,1]$ and verifying graphically that all roots of Legendre polynomial lies in the interval $[0,1]$.
22.09.2025-27.09.2025	Practical problems related to coefficients of Legendre polynomial.
29.09.2025-04.10.2025	Practical problems related to coefficients of Legendre polynomial
06.10.2025-11.10.2025	Practical problems based on plotting of Hermite's polynomial.
13.10.2025-18.10.2025	Practical problems based on plotting of Hermite's polynomial.
27.10.2025-01.11.2025	Practical problems related to Laplace Transforms
03.11.2025-08.11.2025	Practical problems related to Laplace Transforms
10.11.2025-15.11.2025	Practical problems related to Laplace Transforms
17.11.2025-20.11.2025	Practical problems related to Laplace Transforms


Signature


Principal

GOVERNMENT COLLEGE FOR WOMEN, HISAR

Lesson Plan

Mathematics

Session 2025-26 (Odd Semester)

Class : RA-I	Semester : I
Internal Marks:15	Subject : Contributions of Indian Mathematicians
External Marks: 35	Paper Code: C24VAC114T
Total marks: 50	Teacher Name: Anil Kumar
Date	Topics to be covered
14.07.2025-19.07.2025	Unit-I Contribution in Ancient and Medieval Period
21.07.2025-26.07.2025	Development of Indian mathematics during Vedic period.
28.07.2025-02.08.2025	Development of Indian mathematics during Ancient period
04.08.2025-09.08.2025	Overview of the Vedic period, Mathematical ideas in the Vedas and manuscripts in Indian mathematics
11.08.2025-16.08.2025	Life, background, notable works, mathematical contribution of Baudhayana
18.08.2025-23.08.2025	Pingala, Aryabhata, Brahmagupta
25.08.2025-30.08.2025	Bhaskaracharya, Mahaviracharya and Lilavati
01.09.2025-06.09.2025	Kerala School of Mathematics, Madhava of Sangamagrama
08.09.2025-13.09.2025	Nilakantha Somayaji, Jyesthadeva
15.09.2025-20.09.2025	Overview of historical backgrounds and their contribution
22.09.2025-27.09.2025	Unit-II Contribution in Modern Period
29.09.2025-04.10.2025	Srinivasa Ramanujan, Satyendra Nath Bose
06.10.2025-11.10.2025	Radhanath Sikdar, P.C. Mahalanobis, D.R. Kaprekar: Early life, Education, Challenges.
13.10.2025-18.10.2025	Achievements and their contribution. Introduction to the prestigious Ramanujan Award, Fields Medal, Abel Prize and their significance.
27.10.2025-01.11.2025	Achievements and their contribution. Introduction to the prestigious Ramanujan Award, Fields Medal, Abel Prize and their significance.
03.11.2025-08.11.2025	Biography and contributions of illustrious mathematicians from India: Subrahmanyam Chandrasekhar
10.11.2025-15.11.2025	C.R. Rao, S.R. Srinivasa Varadhan, Akshay Venkatesh, Harish Chandra
17.11.2025-20.11.2025	Revisionj


Signature


Principal

GOVERNMENT COLLEGE FOR WOMEN, HISAR

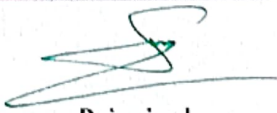
Lesson Plan

Mathematics

Session 2025-26 (Odd Semester)

Class : BA-III/B.Sc-III	Semester : V
Internal Marks:20	Subject : Number Theory & Trigonometry
External Marks: 80	Paper Code: CML-508(i)
Total marks: 100	Teacher Name: Anil Kumar
Date	Topics to be covered
14.07.2025-19.07.2025	Section-I Linear Diophantine equation
21.07.2025-26.07.2025	Prime counting function, statement of prime number theorem
28.07.2025-02.08.2025	Goldbach conjecture, linear congruences
04.08.2025-09.08.2025	Complete set of residues
11.08.2025-16.08.2025	Chinese remainder theorem, Fermat's little theorem, Wilson's theorem
18.08.2025-23.08.2025	Section-II Number theoretic functions, sum and number of divisors, totally multiplicative functions
25.08.2025-30.08.2025	Möbius inversion formula, the greatest integer function
01.09.2025-06.09.2025	Euler's phi-function, Euler's theorem, reduced set of residues, some properties of Euler's phi-function
08.09.2025-13.09.2025	Section-III Order of an integer modulo n, primitive roots for primes, composite numbers having primitive roots, Euler's criterion
15.09.2025-20.09.2025	The Legendre symbol and its properties, quadratic reciprocity
22.09.2025-27.09.2025	Quadratic congruences with composite moduli
29.09.2025-04.10.2025	Section-IV Exponential, Logarithmic
06.10.2025-11.10.2025	Circular functions; $\sin(nx)$, $\cos(nx)$, $\tan(nx)$, $\sin x$, $\cos x$, $\tan x$
13.10.2025-18.10.2025	Hyperbolic and inverse hyperbolic functions - simple problems
27.10.2025-01.11.2025	Gregory's series.
03.11.2025-08.11.2025	Summation of Trigonometric series
10.11.2025-15.11.2025	Trigonometric expansions of sine and cosine as infinite products (without proof).
17.11.2025-20.11.2025	Revision


Signature


Principal