

Department of Mathematics, Govt. College, Baund Kalan (Ch. Dadri)
Lesson Plan for Odd Semester 2025-26

Name of Assistant Professor: Dr Ashish
 Class & Semester: B.com 1st semester
 Subject: Business Mathematics -I

Sr. No.	Month	Week	Topics
1	August, 2025	1st	Set Theory: Representation of sets, equivalent sets,
		2nd	power set, complement of a set
		3rd	venn Diagrams: Union and intersection of sets
		4th	De-Morgan's laws; Logical statements and truth tables
2	September, 2025	1st	Logarithms
		2nd	Laws of operation
		3rd	log tables
		4th	Arithmetic and geometric progression
3	October, 2025	1st	Matrices and Determinants: Definition of a matrix, order, equality, types of matrices
		2nd	Operations on matrices: Addition, multiplication and multiplication
		3rd	Determinant of a square matrix (upto 3x 3 order): Properties of determinants,
		4th	co-factors and applications of determinants in finding the area of triangle, adjoint and inverse of matrix
4	November, 2025	1st	Compound interest and annuities: Different types of interest rates,
		2nd	types of annuities, present value and amount of an annuity
		3rd	valuation of simple loans and debentures, problems related to sinking funds
		4th	Revision & Test



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Lesson Plan for Odd Semester 2025-26

Name of Assistant Professor: Dr Ashish

Class & Semester: B.A 1st semester

Subject: Calculus

Sr. No.	Month	Week	Topics
1	August, 2025	1st	ϵ - δ definition of limit and continuity of a real valued function, Basic properties of limits
		2nd	Types of discontinuities, Differentiability of functions, Application of L'Hospital rule
		3rd	Successive differentiation, Leibnitz theorem
		4th	Taylor's and Maclaurin's series expansion with different forms of remainder
2	September, 2025	1st	Asymptotes: Horizontal, vertical and oblique asymptotes for algebraic curve
		2nd	Asymptotes for polar curves, Intersection of a curve and its asymptotes
		3rd	Curvature and radius of curvature of curves
		4th	Newton's method, Centre of curvature and circle of curvature.
3	October, 2025	1st	Multiple points, Node, Cusp, Conjugate point
		2nd	concavity and convexity
		3rd	Points of inflexion, Tracing of curves,
		4th	Reduction formulae
4	November, 2025	1st	Rectification, intrinsic equation of a curve
		2nd	Quadratur, Area bounded by closed curves
		3rd	Volumes and surfaces of solids of revolution
		4th	Revision & Test



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Lesson Plan for Odd Semester 2025-26

Name of Assistant Professor: Dr Ashish

Class & Semester: B.A 3rd semester

Subject: Differential Equations-1

Sr. No.	Month	Week	Topics
1	August, 2025	1st	ϵ - δ definition of limit and continuity of a real valued function, Basic properties of limits
		2nd	Types of discontinuities, Differentiability of functions, Application of L'Hospital rule
		3rd	Successive differentiation, Leibnitz theorem
		4th	Taylor's and Maclaurin's series expansion with different forms of remainder
2	September, 2025	1st	Asymptotes: Horizontal, vertical and oblique asymptotes for algebraic curve
		2nd	Asymptotes for polar curves, Intersection of a curve and its asymptotes
		3rd	Curvature and radius of curvature of curves
		4th	Newton's method, Centre of curvature and circle of curvature.
3	October, 2025	1st	Multiple points, Node, Cusp, Conjugate point
		2nd	concavity and convexity
		3rd	Points of inflexion, Tracing of curves,
		4th	Reduction formulae
4	November, 2025	1st	Rectification, intrinsic equation of a curve
		2nd	Quadratur, Area bounded by closed curves
		3rd	Volumes and surfaces of solids of revolution
		4th	Revision & Test



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Lesson Plan for Odd Semester 2025-26

Name of Assistant Professor: Dr Ashish

Class & Semester: B.A. 5th semester

Subject: Statics & Dynamics

Sr. No.	Month	Week	Topics
1	August, 2025	1st	Friction
		2nd	Centre of Gravity
		3rd	Virtual Work
		4th	Test and Revision of Unit 1
2	September, 2025	1st	Forces in three dimensions
		2nd	Poinsot's central axis
		3rd	Wrenches
		4th	Null Lines and planes
3	October, 2025	1st	Defenations of conservative forces
		2nd	Impulsive forces
		3rd	Projectile motion of a particle in a plane
		4th	Vector Angular Velocity
4	November, 2025	1st	General motion of a rigid body
		2nd	central orbits
		3rd	Keplar law of motion
		4th	Motion of a particle in three dimensions



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Name of Assistant Professor: Dr Ashish

Class & Semester: B.A. 5th semester

Subject: Linear Algebra

Sr. No.	Month	Week	Topics
1	August, 2025	1st	Vector spaces and its subspaces
		2nd	Sum and direct sum of its subspaces
		3rd	Linear span, Linear independent and dependent
		4th	Basis and Dimension
2	September, 2025	1st	Quotient Spaces
		2nd	Homomorphism and isomorphism of vector spaces
		3rd	Linear transformation
		4th	Dual spaces, null spaces
3	October, 2025	1st	Rank and nullity theorem
		2nd	Algebra of linear transformation
		3rd	Singular and non singular transformation
		4th	Change of basis
4	November, 2025	1st	Eigen values and eigen vectors of Linear transformation
		2nd	Inner product space
		3rd	Orthogonal sets and basis
		4th	Test and Revision

