

Baba fateh Singh ji Govt. College, Assandh, Karnal

Department of Mathematics (Dynamics)

Class B.A. III, Semester -IV

Lesson Plan

Sr.No		
1	01/01/2025 Week 1	Velocity and Acceleration along radial, transverse, tangential and normal directions.
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7	06/01/2025 Week 2	Relative Velocity and acceleration. simple harmonic Motion
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13	10/02/2025 Week 3	Elastic String. Problem Solving.
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19	15/02/2025	
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25	17/02/2025 Week-4	Mass, Momentum and Force. Newton Law of force. Motion.
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31	24/02/2025 Week-5	Work Power and Energy. Definition of Conservative
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37	03/03/2025 Week-6	forces and Impulsive forces. Problem Solving.
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43	17/03/2025	Motion on Smooth and rough plane curves.
44	Week 7	
45	22/03/2025	Projectile motion of a particle in a plane.
46	Week-8	
47	24/03/2025	Vector angular Velocity. Problem Solving.
48	Week-9	
49	29/03/2025	General Motion of a rigid body. Central Orbits. Kepler Law of Motion.
50	Week-10	
51	01/04/2025	Motion of a particle in three dimensions.
52	Week-11	
53	05/04/2025	Acceleration in terms of different co-ordinate systems.
54	Week-12	
55	07/04/2025	Test and Problem Solving.
56	Week-13	
57	12/04/2025	
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59	14/04/2025	
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61	19/04/2025	
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63	21/04/2025	
64	Week-13	
65	26/04/2025	
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67	28/04/2025	
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69	30/04/2025	
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Baba fateh Singh ji Govt. College, Assandh, Karnal

Department of Mathematics (Linear Algebra)

Class B.A. III Semester - VI

Lesson Plan

Sr.No		
1	01/01/2025 Week 1	Vector Spaces, Subspaces. Sum and direct sum of subspaces. Linear Span. Linearly independent
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7	06/01/2025 Week 2	and Linearly dependent subset of vector space. Existence theorem.
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13	10/02/2025 Week 3	Extension of basis. Quotient space and its dimension. Problem Solving.
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19	15/02/2025	Homomorphism and isomorphism of vector space. Linear transformation of vector space.
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25	22/02/2025	Dual spaces. Annihilator of subspaces. Null space. Range space. Rank and Nullity.
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31	03/03/2025 Week-6	Problem Solving of Linear transformation and Rank and Nullity.
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37	09/03/2025	
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43	17/03/2025	Algebra of Linear Transformation.
44	Week 7	
45	22/03/2025	Minimal polynomial. Singular and
46		Non singular and non-singular
47	24/03/2025	Linear transformation. Matrix of L.T.
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49	Week-8	change of basis. Eigen Values and
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51	29/03/2025	Eigen Vectors of L.T.
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54	01/04/2025	Problem Solving Algebra and
55		Matrix of Linear Transformation,
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57	Week-9	Dual space, Eigen Values and
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59	05/04/2025	Eigen Vectors.
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63	07/04/2025	Inner Product Space. Cauchy-
64		Schwarz inequality, Orthogonal Vectors.
65	Week-10	
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67	12/04/2025	Bessel's inequality.
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70	14/04/2025	Gram Schmidt orthogonalization process.
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72	Week-11	Adjoint of L.T.
73		
74	19/04/2025	Unitary of L.T.
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77	21/04/2025	Problem Solving of Inner Product
78		Space and Linear operator
79	Week-12	on Inner Product Space.
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81	26/04/2025	
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84	28/04/2025	Test and Problem Solving.
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86	Week-13	
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88	30/04/2025	
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Baba fateh Singh ji Govt. College, Assandh, Karnal

Department of Mathematics / Business Mathematics

Class B.Com - I, Semester II

Lesson Plan

Sr.No		
1	10/02/2025	Derivative of simple functions. Use of Product rule.
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6	15/02/2025	
7	17/02/2025	Use of Quotient Rule. Use of Chain Rule and problems.
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13	24/02/2025	Logarithmic functions. Exponential functions. Implicit functions.
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19	01/03/2025	
20	03/03/2025	Logarithmic differentiation. Maxima and Minima.
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26	08/03/2025	
27	17/03/2025	Practical problem on Maxima and Minima. Indefinite integral.
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33	24/03/2025	Integration by substitution. Integration by parts.
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39	29/03/2025	
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43	01/04/2025	Partial fraction.
44	Week 7	
45	05/04/2025	Some special integrals.
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47	07/04/2025	Definite integral.
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49	Week-8	Application of integration.
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51	12/04/2025	Problem solving.
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54	14/04/2025	Factorial.
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56	Week-9	Difference between permutation and combination.
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58	19/04/2025	Restricted permutation.
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63	21/04/2025	Formula of nCr and its use.
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65	Week-10	Practical problem on combination.
66		
67	26/04/2025	Binomial Expansion.
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70	28/04/2025	General Term in Binomial Expansion.
71		
72	Week-11	Binomial theorem for any index.
73		
74	03/05/2025	Application of Binomial theorem.
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77	05/05/2025	Mathematical Formulation of Linear programming problem.
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79	Week-12	
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81	10/05/2025	Corner point method.
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84	12/05/2025	Application of Linear programming problem.
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86	Week-13	
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88	17/05/2025	Solution of Linear programming problem.
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91	19/05/2025 Week-14	Problem Solving of Linear programming problems.
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96	24/05/2025	Tests and Problem Solving.
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98	26/05/2025 Week-15	Test and problem Solving.
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103	31/05/2025	
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105	Week-16	
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112	Week-17	
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Baba fateh Singh ji Govt. College, Assandh, Karnal

Department of Mathematics [Analytical Geometry & Vector Calculus]

Class B.A II, Semester IV

Lesson Plan

Sr.No	From :-	To :-	Topic
1	10/02/2025	Week 1	Classification of Conic section. Centre, asymptotes, axes, eccentricity, foci and directrices of conics. Tangent at any point to a conic.
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7	17/02/2025	Week 2	Chord of contact, Pole of line to a conic, director circle of a conic. Polar equation of a conic, Tangents and normal to a conic, confocal Conic.
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13	21/02/2025	Week 3	Solving of problems related to General Equations of second degree. Solving of problems related to Confocal conics and polar equations of a conic.
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19	01/03/2025	Week-4	General forms of spheres. Plane section of a spheres. Sphere through a given circle. Intersection of two spheres. Tangent plane and line. Polar plane and line. Orthogonal spheres. radical plane of two spheres. Co-axial system of spheres. Solving of problems related to spheres.
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25	08/03/2025	Week-5	Equation of a cone. Right circular cone. Quadric Cone. Enveloping cone. Tangent plane and Condition of tangency. Problem Solving related to cone.
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31	22/03/2025	Week-6	Equation of a cone. Right circular cone. Quadric Cone. Enveloping cone. Tangent plane and Condition of tangency. Problem Solving related to cone.
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37	29/03/2025	Week-6	Equation of a cone. Right circular cone. Quadric Cone. Enveloping cone. Tangent plane and Condition of tangency. Problem Solving related to cone.
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43	Week 7	01/04/2025	Right circular cylinder and enveloping cylinder. Central Conicoids.
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45		05/04/2025	Equation of tangent plane. Director
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47	Week-8	07/04/2025	Sphere Normal to the conicoids.
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49			Plane of a point. Enveloping
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52		12/04/2025	Cone of a conicoid. Enveloping
53			cylinder of a conicoid.
54	Week-9	14/04/2025	Confocal Conicoid, Reduction of second
55			degree equation.
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58			Problem solving of cylinder,
59			
60		19/04/2025	The conicoid and Confocal conicoid and
61			Reduction of second degree equation -
62			
63	Week-10	21/04/2025	Scalar and vector product of three
64			vectors, four vectors, reciprocal vector.
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67			Vector differentiation and derivative
68		26/04/2025	along a curve.
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70	Week-11	28/04/2025	Directional derivatives. Gradient of
71			a scalar point function,
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74		03/05/2025	Divergence and curl of a
75			vector point function.
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77	Week-12	05/05/2025	Vector identities. Vector integration.
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79			Line integral, surface integral,
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82		10/05/2025	Volume integral. Gauss theorem
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84	Week-13	12/05/2025	Green theorem, Stokes theorem
85			and their problems.
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89		17/05/2025	
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91	19/05/2025 Week-14 24/05/2025	Problem Solving of unit wise syllabus
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98	26/05/2025 Week-15 31/05/2025	Unit wise Test and Problem Solving.
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Baba fateh Singh ji Govt. College, Assandh, Karnal (VAC)		
Department of <u>Mathematics</u> (Mathematics in every day life)		
Class <u>B.A./B.Com II</u> Semester - II		
Lesson Plan		
Sr.No		
1	10/02/2025	Simple interest.
2	Week 1	Problem of simple interest.
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6	15/02/2025	
7	Week 2	Compound interest. Problem of Compound interest.
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12	22/02/2025	
13	Week 3	Equated monthly installment. Problem of EMI
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19	01/03/2025	
20	Week-4	Direct tax calculation. Problem of direct tax calculation.
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27	03/03/2025	
28	Week-5	Profit and loss. Work, Time and distance.
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32	22/03/2025	
33	Week-6	Coding and decoding. Ratio and Proportion.
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39	29/03/2025	
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43	01/04/2025 Week 7	Trigonometry and its Applications.
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45	05/04/2025	Measurement for practical purposes.
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47	07/04/2025	Sequences and Series.
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49	Week-8	Arithmetic progression. Geometric
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51	12/04/2025	progression.
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53	14/04/2025	Problem of Sequences and Series.
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55	Week-9	Permutation and Combination.
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57	19/04/2025	
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59	Week-10	Problem Solving.
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61	21/04/2025	Mean.
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63	Week-11	Mode.
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65	26/04/2025	Median
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67	Week-12	standard Deviation.
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69	28/04/2025	Variance.
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71	Week-13	Bar graphs.
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73	03/05/2025	Pie charts.
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75	05/05/2025	Ogives.
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77	12/05/2025	Linear equation in two variables.
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79	Week-13	Linear programming problem.
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81	17/05/2025	Graphical solution.
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83	Week-13	
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85	17/05/2025	
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87	Week-13	
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89	17/05/2025	
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91	19/05/2025 Week-14	Problem Solving of Mean, Median Mode, S.D., Variance., Bar graphs. L.P.P.
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98	26/05/2025 Week-15	Tests and Problem Solving.
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