BAGARIA BAL VIDYA NIKETAN
LAXMANGARH SIKAR
SYLLABUS & LESSON PLANNER - 2025-2026

Class	XII-SCI.
Subject	MATHEMATICS
Teacher Name:-	PRAVEEN

syllabus

Ch. No.	NAME OF BOOKS	Name of Chapter	Working Day	Period	Topic	Month	Week
Unit 1 Relations and Functions	NCERT	Relation & Function	23	34	Types of Relations,reflexive,symmetric,transitive and equivalenence relations one to one and onto function	April	1,2
		Inverse Trigonometric Functions			Definition, range,domain,principle value branch, graphs of inverse trigonometric functions		3,4
Unit 2 Algebra		Matrices	13	19	concepts,notation,order,equality,types of matrices,zero and identity matrices,transpose of a matrix, symmetric and skew symmetric matrices . Operations on matrices:addition and multiplication and muliplication with a scalar .Inveritible matrices and proof of the uniqueness of inverse.	may	1,2
		Determinantes	11	17	Determinant of a square matrix , minors, co-factors and applications of determinants in finding the area of a triangle, adjoint and inverse of a square matrix . Consistency, inconsistency and number of solutions of system of linear equtions by examples,solving system of linear equations in two or three variables using inverse of a matrix.	June	1,2

Unit 3 Calculus			Continuity and Differentiablility	27	40	Continuity and Differentiability, Chain rule, Derivative of inverse trigonometric functions, Concept of exponential and logarithmic functions, Logarithmic differentiation, derivative of functions, Expressed in paramatric forms. Second order derivatives.	July	1, 2, 3, 4
			Vectors			vectors and scalars, magnitude and direction of a vector.direction cosines and direction ratios of a vectors, types of vectors , position		
			Applications of Derivatives			Rate of change of quantities, increasing\ decreasing functions, maxima and minima and second derivative test given as a provable tools, simple problems.		
			Integrals	24	36	Integration as inverse process of differentiation, veriety of functions by substitution, by partial fractions and by parts, Fundamental theorem of Calculus, Basic properties of definite integrals and evaluation, of definite integrals.	August	1,2,3,4
			Application of the integrals			Finding the area under simple curves, espacially lines, circles/parabolas/ ellipses.		
			Differential Equations			Order and degree, general and particular solutions of a differential equation, Method of separation of variables, solutions of homogeneous differential equations of first order and second degree. Solutions of linear differential of the type.		
Unit 5 Li			3-D geometry			direction cosines and direction ratios of a line joining two points , Cartsian equation and vector equation of a line , skew lines , shortest distance between two lines. Angle between two		1

Linear Programming		Linear Programming	22	33	Introduction, Related terminology such as constraints, objective Function, Graphical method of solution for problems in two variables, feasible and infeasible regions.	September	2
Unit 6 Probability		Probability			Conditional Probability, Multiplication theorem on probability, Independent events, total probability, Bayes' theorem, Random variable and its probability distribution, mean of random variable.		3,4