

AIR FORCE SCHOOL, BAMRAULI
ANNUAL SPLIT UP OF SYLLABUS

ACADEMIC SESSION 2024-25

CLASS & SEC: XII -A

SUBJECT: - MATHS (041)

BOOK NAME: NCERT

Month	Chapter/Unit lesson	Topic/Sub topic	No. of Period	Activity
April	1	Relation and Function: Types of relation, Types of function, Composition of function.	10	
April	2	Inverse Trigonometry: Domain and range of inverse trigonometry. Properties of inverse trigonometric function	5	
April	3	Matrices: Order of matrix, Construction of matrix, Algebra of matrices, Multiplication of matrices, Transpose of matrix, Properties of transpose of matrix	8	
May	4	Determinant: Determinant by expansion, Area of triangle, Minors and cofactor, Adjoint and inverse of matrix, Application of determinant and matrices.	10	
June & July	5	Continuity and differentiability: Continuity, Differentiability, Derivative of composite function, Derivative of implicit function, Derivative of inverse trigonometric function, Exponential and logarithmic function, Logarithmic differentiation, Derivatives of	18	

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		function in parametric form, Second order derivatives.		
July	6	Application of derivative: Derivative as rate measure, Increasing and decreasing function, Maxima and minima.	15	
August	7	Integral: Integration as inverse process of differentiation, Substitution method, Trigonometric function, Integral of some Particular function, Integration by partial fraction, Integration by parts, Integral of some of more types, Definite integral, Properties of definite integral.	20	
August	8	Application of integral: Area under simple curves	5	
September	9	Differential equation: Order and degree of differential equation, General and particular solution of differential equation, First order and first-degree differential equation, Homogeneous differential equation, Linear differential equation.	12	
September	10	Vector Algebra: Types of vectors, Algebra of vectors, Scalar product. Vector product.	6	

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September & October	11	Three-dimensional geometry: Direction ratio and direction cosine of a line, "Straight line", Equation of line, Angle between two lines, shortest distance between two skew lines and b/w two parallel lines.	6	
October	12	Linear programming: Linear programming problem and its mathematical formulation, Graphical method of solving L P P. Up to three non-trivial constraints.	5	
October	13	Probability: Conditional probability, Multiplication theorem on probability, Theorem of total probability, Bayes' theorem, Random variable and probability distribution	10	
November, December and January		Revision, Pre- Board, CBSE Sample Papers and Practice papers		