|  |  |  |
| --- | --- | --- |
|  | **Name of the Book** | **Topic/Sub topic** |
| **April** | **NCERT** | **Relation and Function:****Types of relation, Types of function, Composition of function , Inverse of function, Invertible function, Binary operation**  |
| **April** | **NCERT** | **Inverse Trigonometry:****Domain and range of inverse trigonometry, Properties of inverse trigonometry** |
| **April & may** | **NCERT** | **Matrices:****Order of matrix, Construction of matrix, Algebra of matrices, Multiplication of matrices, Transpose of matrix, Elementary transformation to find inverse of matrix**  |
| **May**  | **NCERT** | **Determinant:****Determinant by expansion, Properties of determinant, Area of triangle, Minors and cofactor, Adjoint and inverse of matrix, Application of determinant and matrices**  |
| **June** | **NCERT** | **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 function in parametric form, Second order derivatives, Mean value theorem** |
| **July** | **NCERT** | **Application of derivative:****Derivative as rate measure, Increasing and decreasing function, Tangent and normal, Approximation, Maxima and minima.** |
| **August**  | **NCERT** | **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, Limit of sum, Properties of definite integral.**  |
| **September** | **NCERT** | **Application of integral:****Area under simple curves, Area between two curves.** |
| **September** | **NCERT** | **Differential equation:****Order and degree of differential equation, General and particular solution of differential equation, Formation of differential equation, First order and first degree differential equation, Homogeneous differential equation, Linear differential equation.** |
| **October** | **NCERT** | **Vector Algebra:****Types of vector, Algebra of vectors, Scalar product. Vector product, Scalar triple product.** |
| **October** | **NCERT** | **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,“Plane” Equation of plane, Planarity of two lines angle between two planes, Distance of a point from a plane, Angle between line and plane.**  |
| **November** | **NCERT** | **Linear programming:****Linear programming problem and its mathematical formulation, Graphical method of solving L P P. Different types of linear programming problem as manufacturing, diet, transportation and allocation problem.** |
| **November** | **NCERT** | **Probability:****Conditional probability, Multiplication theorem on probability, Theorem of total probability, Bayes’ theorem, Random variable and probability distribution, Binomial distribution.** |
| **December and January** |  | **Revision, CBSE Sample Paper** |