



CAMBRIAN PUBLIC SCHOOL KANKE ROAD RANCHI

Class – XI (Session 2026-27)

LEARNING PLAN OUTCOMES

Subject: Applied Mathematics (241)

S. No.	Month	Topic	Learning outcome
1	April/May -2026	Bridge course	
2	June -2026	Numbers, Indices and logarithms, Quantative aptitude	- Express decimal numbers in binary system and vice versa - Relate indices and logarithm and their properties - Evaluate the angular value of a minute and calculate the angle formed between two hands of a clock at a given time - Determine odd and even days in a month/year/century - Establish the relationship between work and time - Compare the work done by the individual/group w.r.t. time - Create suitable seating plan/ draft as per given conditions
3	July-2026	Sets and Relation, sequence and series	- Define sets, represent a set-in roster form and set builder form - Identify different types of sets - Enlist all subsets of a set - Apply the concept of venn diagram to understand the relationship between sets - Perform operations on sets - Explain the significance of specific arrangement of elements in a pair - Write cartesian product of two sets - Express relation as a subset of cartesian product - Find domain and range of relation - Differentiate between sequence and series - Identify Arithmetic progression - Establish the formulae of finding nth term and sum of n terms - Identify Geometric progression - Derive the nth term and sum to n terms and solve the problem
4	August - 2026	Permutation and combination, logical reasoning and function	- Define factorial of a number - Calculate factorial of a number - Appreciate how to count without counting

			- Define permutation and combination and apply the concept to solve the problems - Solve logical reasoning problem - Define a function and find its domain and range - Define various types of function and represents a function graphically
5	September -2026	Limits	Define limit of a function and solve problem based on the algebra of limits
6	October -2026	Differentiation	Define derivative and find derivative of the function
7	November -2026	Probability	- Define probability, random experiment and sample space - Define an event and their types - Define the concept of conditional probability and solve problem - State Bayes' theorem and solve problem
8	December -2026	Descriptive statistics, compound interest and annuity	- Understand meaning of dispersion in a data set - Differentiate between range, quartile deviation - Define percentile rank and quartile rank and calculate its value in a data - Define the concept of Interest Rates and interpret the concept of compound interest - Explain the concept of Immediate Annuity and calculate various types of Annuity
9	January-2027	Taxation and straight line	- Explain fundamentals of taxation - Differentiate between Direct and Indirect tax - Define and explain GST - Calculate GST - Find the slope and equation of line in various form - Find angle between two lines - Find distance between two parallel lines
10	Feb and March-27	Circle and parabola	- Define a circle and its equation - Find different form of equations of a circle - Define parabola and find its equation - Solve various problem
