

ACADEMIC PLANNER (APPLIED MATHEMATICS-XI, 2026-27)

Month (WD)	Content	Learning outcomes	Assignment/ H.W	Practical/ Project work/ Mode of Assessment
May	UNIT – 2 ALGEBRA			
1-15 (11)	Sets	<ul style="list-style-type: none"> • Defines set as well-defined collection of objects • Understands different types of sets and their notations • Applies set operations in real-world problems 	Exercises of Chapter from CBSE Book/M.L Bhargava	Project on any one topic from the List of Projects suggested by CBSE - venn Diagrams
	Introduction to sets – definition, Representation of sets, Types of sets and their notations, Subsets, Intervals, Venn diagrams, Operations on sets			
	Relations	<ul style="list-style-type: none"> • Explains the significance of specific arrangement of elements in a pair • Expresses relation as a subset of Cartesian product • Finds domain and range of a relation 	Exercises of Chapter from CBSE Book/M.L Bhargava	Class Test/HW
	Ordered pairs, Cartesian product of two sets, Relations			
July	UNIT- 6 DESCRIPTIVE STATISTICS			
1-15 (12)	Data Interpretation: Measure of Dispersion, Range, Quartile deviation, mean deviation, standard deviation, Percentile rank	<ul style="list-style-type: none"> • Differentiates between measures of dispersion • Calculates measures of dispersion • Calculates and interpret Percentile rank of scores in a given ungrouped data set • Calculates Spearman’s rank correlation for ungrouped data • Concept of Regression analysis • Dependent and Independent variables • Regression Coefficients • Regression Equations • Properties of Regression Equations 	Exercises of Chapter from CBSE Book/M.L Bhargava	creating pictographs, drawing pie chart, bar graphs using MS Excel
16-31 (14)	Correlation, Regression			
August	UNIT – 2 ALGEBRA			
1-15 (11)	Sequence and Series	<ul style="list-style-type: none"> • Analyzes arithmetic/geometric progressions • Applies AP & GP in financial and real-life contexts 	Exercises of Chapter from CBSE Book/M.L Bhargava	Assignment /HW
	Sequence and Series, Arithmetic Progression, Geometric Progression, Applications of AP and GP			

16-31 (12)	UNIT – 1 NUMBERS, QUANTIFICATION AND NUMERICAL APPLICATIONS			
	Numbers & Quantification			
	Binary Numbers, Indices, Logarithm and Antilogarithm, Laws and properties of logarithms, Simple applications of logarithm and antilogarithm	<ul style="list-style-type: none"> • Understands binary numbers, indices, logarithms, and their applications • Applies concepts of time, work, distance, seating arrangements 	Exercises of Chapter from CBSE Book/M.L Bhargava	Collect the data on weather, price, inflation, and pollution. Sketch different types of graphs and analyze the results
September	UNIT – 1 NUMBERS, QUANTIFICATION AND NUMERICAL APPLICATIONS			Calculating average Using Excel
1-15(11)	Numerical Applications			
	Clock, Calendar, Time, Work and Distance, Seating arrangement			
16-30 (12)	HALF YEARLY EXAMINATIONS			
October	UNIT -3 MATHEMATICAL REASONING			
1-15 (8)	Logical reasoning - <ul style="list-style-type: none"> •Odd man out •Syllogism •Blood relations •Coding Decoding 	<ul style="list-style-type: none"> • Solves logical problems involving odd man out, syllogism, blood relation and coding decoding 	Exercises of Chapter from CBSE Book/M.L Bhargava	Case Studies, Quiz
16-31 (10)	UNIT – 2 ALGEBRA			
	Permutations and Combinations	<ul style="list-style-type: none"> • Differentiates between permutation and combination • Apply the concepts of permutations and combinations to solve the related problems 	Exercises of Chapter from CBSE Book/M.L Bhargava	Assignment /HW
	Factorial, Fundamental Principle of Counting, Permutations, Combinations			
November	UNIT – 4 CALCULUS			
1-15 (11)	Graphical representation of functions, Concepts of limits and continuity of a function	<ul style="list-style-type: none"> • Defines domain, range and co-domain of a given function • Represents the functions graphically • Solves problems based on the algebra of limits 	Exercises of Chapter from CBSE Book/M.L Bhargava	Plot the graph of functions on excel. Study the nature of function at various points, drawing lines of tangents
16-30 (12)	UNIT – 4 CALCULUS			
	Instantaneous rate of change, Differentiation as a process of finding derivative, Derivatives of algebraic functions using Chain Rule	<ul style="list-style-type: none"> • Defines continuity of a function • Finds the derivative of the functions 		
December	UNIT – 5 PROBABILITY			
1-15 (12)	Introduction, Random experiment and sample space, Event, Conditional Probability	<ul style="list-style-type: none"> • Recognizes and differentiate different types of events and find their probabilities • Applies reasoning skills to solve problems based on conditional probability 	Exercises of Chapter from CBSE Book/M.L Bhargava	Calculating central tendency using Excel

16-31 (13)	UNIT – 8 COORDINATE GEOMETRY	<ul style="list-style-type: none"> • Understands the equations and properties of curves 	Exercises of Chapter from CBSE Book/M.L Bhargava	Assignment /HW
	Straight line, Circle, Parabola			
January 1-15 (0)	Winter Break			
16-31 (13)	UNIT – 7 FINANCIAL MATHEMATICS	<ul style="list-style-type: none"> • Defines interest • Calculates simple and compound interest • Understands annuities • Applies financial concepts in real-life scenarios • Compares investment schemes • Applies tax calculation in real-world scenarios • Interprets and compute various utility bills 	Exercises of Chapter from CBSE Book/M.L Bhargava	Calculating interest (simple and compound) using Excel
	Interest and Interest Rates, Accumulation with simple and compound interest, Simple and compound interest rates with equivalency, Effective rate of interest, Annuities, Calculating value of Regular Annuity, Simple applications of regular annuities (upto 3 period)			
	Tax, calculation of tax, simple applications of tax calculation in Goods and service tax, Income Tax, Bills, tariff rates, fixed charge, surcharge, service charge, Calculation and interpretation of electricity bill, water supply bill and other supply bills			
February 1-15 (12)	Revision for Final Exams			

TERMWISE SYLLABUS	
UT 1 (July)	UNIT - 1 (NUMBERS, QUANTIFICATION AND NUMERICAL APPLICATIONS), UNIT - 2 (ALGEBRA-SETS, RELATIONS)
Half Yearly/Term 1 (Sep.)	UNIT- 1, 2 (ALGEBRA; NUMBERS, QUANTIFICATION AND NUMERICAL APPLICATIONS)
UT 2 (November)	UNIT - 3, 4 (MATHEMATICAL REASONING; ALGEBRA- PERMUTATIONS & COMBINATIONS)
Annual (Feb-March)	COMPLETE SYLLABUS