ACADEMIC PLANNER (APPLIED MATHEMATICS-XI, 2022 - 23)

Month (WD)	Content	Homework & Assignment	Practical/Project Work
July	**UNIT – 2 ALGEBRA**		
1-15 (12)	**Sets**		
	Introduction to sets – definition, Representation of sets, Types of sets and their notations, Subsets, Intervals	Exercises of Chapter from CBSE Book	
16-31 (13)	**Sets**		
	Venn diagrams, Operations on sets	Exercises of Chapter from CBSE Book	**Project on any one topic from the List of Projects suggested by CBSE**
	Relations		
	Ordered pairs, Cartesian product of two sets, Relations	Exercises of Chapter from CBSE Book	

Month (WD)	Content	Homework & Assignment	Practical/Project Work
August	**UNIT – 2 ALGEBRA**		
1-15 (9)	**Sequence and Series**		
	Sequence and Series, Arithmetic Progression, Geometric Progression, Applications of AP and GP	Exercises of Chapter from CBSE Book	
16-31 (13)	**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	Exercises of Chapter from CBSE Book	**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**		
1-15(12)	**Numerical Applications**		
	Averages, Clock, Calendar, Time, Work and Distance, Mensuration, Seating arrangement	Exercises of Chapter from CBSE Book	**Calculating average Using Excel**
16-30 (13)	**HALF YEARLY EXAMINATIONS**		

Month (WD)	Content	Homework & Assignment	Practical/Project Work
October	**UNIT -3 MATHEMATICAL REASONING**		

1-15 (8)	Logical reasoning	Exercises of Chapter from CBSE Book	**Prepare a report card using scores of the last four exams and compare the performance using Excel**
16-31 (11)	**UNIT – 2 ALGEBRA**		
	Permutations and Combinations		
	Factorial, Fundamental Principle of Counting, Permutations, Combinations	Exercises of Chapter from CBSE Book	
November	**UNIT – 4 CALCULUS**		
1-15 (11)	Graphical representation of functions, Concepts of limits and continuity of a function, Instantaneous rate of change, Differentiation as a process of finding derivative, Derivatives of algebraic functions using Chain Rule	Exercises of Chapter from CBSE Book	**Plot the graph of functions on excel. Study the nature of function at various points, drawing lines of tangents**
16-30 (13)	**UNIT- 6 DESCRIPTIVE STATISTICS**		
	Data Interpretation: Measure of Dispersion, Skewness and Kurtosis	Exercises of Chapter from CBSE Book	**creating pictographs, drawing pie chart, bar graphs uaing Excel**
	Percentile rank and Quartile rank, Correlation		
December	**UNIT – 5 PROBABILITY**		
1-15 (12)	Introduction, Random experiment and sample space, Event, Conditional Probability, Total Probability, Bayes' Theorem	Exercises of Chapter from CBSE Book	**calculating central tendency using Excel**
16-31 (14)	**UNIT – 8 COORDINATE GEOMETRY**		
	Straight line, Circle, Parabola	Exercises of Chapter from CBSE Book	
January			
1-15 (0)	**Winter Break**		
16-31 (13)	**UNIT – 7 FINANCIAL MATHEMATICS**		

	Interest and Interest Rates, Accumulation with simple and compound interest, Simple and compound interest rates with equivalency, Effective rate of interest, Present value, net present value and future value, Annuities, Calculating value of Regular Annuity, Simple applications of regular annuities (upto 3 period)	Exercises of Chapter from CBSE Book	**Calculating interest (simple and compound) using Excel**
February	**UNIT – 7 FINANCIAL MATHEMATICS**		
1-15 (12)	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	Exercises of Chapter from CBSE Book	

TERMWISE SYLLABUS	
C. T 1 (July)	**UNIT - 2 (ALGEBRA-SETS, RELATIONS)**
Half Yearly/Term 1(Sep.)	**UNIT- 1, 2 (ALGEBRA, NUMBERS, QUANTIFICATION AND NUMERICAL APPLICATIONS)**
C. T 2 (November)	**UNIT - 3, 4 (MATHEMATICAL REASONING, ALGEBRA- PERMUTATIONS & COMBINATIONS)**
C. T 3 (December)	**UNIT - 5 (PROBABILITY)**
Annual (Feb-March)	**COMPLETE SYLLABUS**