SYLLABUS BREAKUP (2026-27)
SUBJECT: APPLIED MATHEMATICS
CLASS XI

FIRST CYCLE WRITTEN TEST: JULY 20, 2026
HALF-YEARLY EXAM: 15 SEPTEMBER, 2026 ONWARDS
SECOND WRITTEN TEST: DECEMBER 23, 2026
ANNUAL EXAM.: FEBRUARY 15, 2027 ONWARDS
APRIL & MAY

TOTAL NUMBER OF WORKING DAYS:	**36 Days (app.)**
TOTAL NUMBER OF PERIODS INVOLVED IN TEACHING:	**40 periods (app.)**
CHAPTER	**NO. OF PERIODS**
1. SETS	**[10]**
[a] Introduction to Sets and their Representations	1
[b] Empty Set, Finite and Infinite Sets, Equal Sets	1
[c] Subsets, Power Sets, Universal Set, Intervals	2
[d] Venn Diagram, Practical problems on based on Venn Diagram	3
[e] Operation on Sets, Practical Problems based on Operation on Sets	4
2. RELATIONS AND FUNCTIONS	**[12]**
[a] Cartesian product of Sets	1
[b] Relations	2
[c] Functions	3
[d] Domain & Range	4
[e] Types of functions & their graphical representation	3
3. SEQUENCE AND SERIES	**[15]**
[a] Differentiate between sequence and series	2
[b] Arithmetic Progression, Formula of nth term, sum of n terms, Arithmetic Mean of two positive numbers	3
[c] Application problems based on AP	3
[d] Geometric Progression, Formula of nth term of a GP, sum of n terms of a GP, Geometric Mean of two positive numbers	4
[e] Problems based on application of a GP and relation between AM and GM	4

JULY

TOTAL NUMBER OF WORKING DAYS:	**22 Days (app.)**
TOTAL NUMBER OF PERIODS INVOLVED IN TEACHING:	**27 periods (app.)**
4. PERMUTATIONS AND COMBINATIONS	**[12]**
[a] Factorial, Definition and usage of factorial in counting principles	3
[b] Fundamental principle of counting, Addition and Multiplication principles, Permutations, Definition and use to solve simple problems	3
[c] Theorems on permutations under different conditions	2
[d] Define combination, Differentiate between permutation and combination. To apply the formula of combination to solve the related problems	4
5. MATHEMATICAL REASONING	**[3]**
Solve logical problems involving odd man out, syllogism, blood relation and coding decoding	
6. NUMBERS, QUANTIFICATION AND NUMERICAL APPLICATIONS	**[12]**
[a] Binary Numbers, Definition of number system(decimal and binary), Conversion from decimal to binary system and vice versa	3
[b] Indices, Logarithm and Antilogarithm, Laws and properties of logarithms, Simple applications of logarithm and antilogarithm	3
[c] Numerical Applications: Clock, Calendar, Time, Work and Distance, and Seating arrangement	6

AUGUST &SEPTEMBER

TOTAL NUMBER OF WORKING DAYS: **29 Days (app.)**
TOTAL NUMBER OF PERIODS INVOLVED IN TEACHING: **35 periods (app.)**

7. CALCULUS (FUNCTION ALREADY COMPLETED) **[8]**

[a] Concept of limits and continuity of a function 2
[b] Instantaneous rate of change 2
[c] Differentiation as a process of finding derivative 2
[d] Derivatives of algebraic functions using Chain Rule 2

8. PROBABILITY **[5]**

[a] Introduction, Random Experiment, Sample Space and Event, Types of events and their probability 2
[b] Conditional Probability 3

9. DESCRIPTIVE STATISTICS **[13]**

[a] Data Interpretation: Measure of Dispersion 4
[b] Percentile rank 5
[c] Correlation 4

10. FINANCIAL MATHEMATICS **[9]**

[a] Interest and Interest Rates 2
[b] Accumulation with simple and compound interest 2
[c] Simple and compound interest rates with equivalency 3
[d] Effective rate of interest 2

OCTOBER

TOTAL NUMBER OF WORKING DAYS: **19 Days (app.)**
TOTAL NUMBER OF PERIODS INVOLVED IN TEACHING: **23 periods (app.)**

10. FINANCIAL MATHEMATICS (CONTINUED) **[14]**

[e] Present value, net present value and future value 2
[f] Annuities, Calculating value of Regular Annuity 3
[g] Simple applications of regular annuities (upto 3 period) 3
[h] Tax, calculation of tax, simple applications of tax calculation in Goods and service tax, Income Tax 3
[i] Bills, tariff rates, fixed charge, service charge 2
[j] Calculation and interpretation of electricity bill, water supply bill and other supply bills 2

11. COORDINATE GEOMETRY

Chapter: Straight Line **[9]**

[a] Slope and equation of a line in various form 2
[b] Angle between two lines 3
[c] The perpendicular from a given point on a given line 2
[d] The distance between two lines 1

NOVEMBER & DECEMBER

TOTAL NUMBER OF WORKING DAYS: **30 Days (app.)**
TOTAL NUMBER OF PERIODS INVOLVED IN TEACHING: **35 periods (app.)**

11. COORDINATE GEOMETRY (CONTINUED)

Chapter: Circle **[6]**

[a] Definition and different forms of equation of a circle 2
[b] Problems based on applications of circle 4

Chapter: Parabola **[8]**

[a] Definition and related terms 2
[b] Eccentricity of a parabola and derive the equation of parabola 3
[c] Problems based on application of parabola 3

REVISION 21

JANUARY AND FEBRUARY

TOTAL NUMBER OF WORKING DAYS: **24Days (app.)**
TOTAL NUMBER OF PERIODS INVOLVED IN TEACHING: **30 periods (app.)**

REVISION **[30]**