

SYLLABUS BREAKUP (2025-26)**SUBJECT: MATHEMATICS****CLASS XI****FIRST CYCLE WRITTEN TEST: MAY 13, 2025****SECOND CYCLE WRITTEN TEST: AUGUST 04, 2025****HALF-YEARLY EXAM: SECOND WEEK OF SEPTEMBER, 2025 ONWARDS****SECOND WRITTEN TEST: DECEMBER 16, 2025****ANNUAL EXAM.: FEBRUARY 12, 2026 ONWARDS****APRIL & MAY****TOTAL NUMBER OF WORKING DAYS:****29 Days (app.)****TOTAL NUMBER OF PERIODS INVOLVED IN TEACHING:****37 periods (app.)****CHAPTER****NO. OF PERIODS****1. SETS****[9]**

[a] Sets and their Representations

1

[b] Empty Set, Finite and Infinite Sets, Equal Sets

1

[c] Subsets, Power Sets, Universal Set

2

[d] Venn Diagram, Operation on Sets Complements of a set

2

[e] Practical problems on Union and Intersection of Two Sets

3

2. RELATIONS AND FUNCTIONS**[11]**

[a] Cartesian product of Sets

1

[b] Relations

2

[c] Functions

2

[d] Domain & Range

2

[e] Types of functions

2

[f] Composition of Functions

2

3. TRIGONOMETRIC FUNCTIONS**[17]**

[a] Measuring Angles in Radians and Degrees

2

[b] Signs of Trigonometric Functions

2

[c] Addition and Subtraction Formulae

2

[d] Conversion of sum & difference into product

2

[e] Conversion of product into sum and difference

3

[f] Identities related to multiple and Sub-multiple angles.

3

[g] General solution of trigonometric equations of the type $\sin y = \sin a$, $\cos y = \cos a$ and $\tan y = \tan a$.

3

JULY**TOTAL NUMBER OF WORKING DAYS:****22Days (app.)****TOTAL NUMBER OF PERIODS INVOLVED IN TEACHING:****27 periods (app.)****4. COMPLEX NUMBERS AND QUADRATIC EQUATIONS****[9]**

[a] Definition of Complex Numbers

1

[b] Algebra of Complex Numbers and Problems

2

[c] Geometrical Representation of Complex Numbers

2

[d] Argand plane and Problems, Polar representation of complex numbers.

2

[e] Solution of quadratic equations (with real coefficients) in the complex number system.

2

5. LINEAR INEQUALITIES**[7]**

[a] Algebraic Solutions of Linear Inequalities in one variable and their representation on number line.

4

[b] Graphical solution of linear inequalities and system in two variables.

3

6. PERMUTATION AND COMBINATION	[11]
[a] Fundamental Principle of Counting and Factorial Notation	2
[b] Permutations and Restricted Permutations	3
[c] Combination	3
[d] Problems involving Permutation & Combination both	3

AUGUST&SEPTEMBER

TOTAL NUMBER OF WORKING DAYS:	29Days (app.)
TOTAL NUMBER OF PERIODS INVOLVED IN TEACHING:	35periods (app.)
7. BINOMIAL THEOREM	[7]
[a] Binomial Theorem for Positive Integral Indices	2
[b] General and Middle Term	2
[c] Problem Discussions	3
8. SEQUENCES AND SERIES	[10]
[a] Arithmetic Progression	1
[b] Geometric Progression	4
[c] Relationship between A.M. and G.M.	2
[d] Sum of infinite G.P.	1
[e] Formulae for the special sums $\sum n$, $\sum n^2$, $\sum n^3$	2
9. STRAIGHT LINE	[12]
[a] Introduction	1
[b] Slope of Line	2
[c] Various forms of equation of a line parallel to axis, point -slope form, Normal Slope-intercept form, two-point form, intercept form, Distance of a point from a line.	3
[d] General Equation of a line and angle between two lines	2
[e] Distance of a point from a line and Distance between parallel lines	2
[f] Problems	2
REVISION	[6]

OCTOBER

TOTAL NUMBER OF WORKING DAYS:	19 Days (app.)
TOTAL NUMBER OF PERIODS INVOLVED IN TEACHING:	23periods (app.)
10. CONIC SECTION	[10]
[a] Section of a Cone	1
[b] Circle	3
[c] Parabola	2
[d] Ellipse	2
[e] Hyperbola & Problems	2
11. LIMITS & DERIVATIVES	[13]
[a] Introduction	1
[b] Limits	2
[c] Limits of Trigonometric Functions	2
[d] Problems	3
[e] Derivatives, Chain Rule	3
[f] Problems	2

NOVEMBER AND DECEMBER

TOTAL NUMBER OF WORKING DAYS:

30Days (app.)

TOTAL NUMBER OF PERIODS INVOLVED IN TEACHING:

35 periods (app.)

12. STATISTICS

[12]

[a] Measures of Dispersion

2

[b] Range Mean Deviation

3

[c] Variance and Standard Deviation

7

13. PROBABILITY

[16]

[a] Random Experiments

2

[b] Events and Types of Events

3

[c] Axiomatic Approach to Probability

3

[d] Problem Discussion

8

14. INTRODUCTION TO THREE DIMENSIONAL GEOMETRY

[7]

[a] Co-ordinate Geometry and Planes in 3-D Space

1

[b] Co-ordinate of a point in Space

1

[c] Distance Formula

1

[d] Section Formula & Problems

4

JANUARY AND FEBRUARY

TOTAL NUMBER OF WORKING DAYS:

24Days (app.)

TOTAL NUMBER OF PERIODS INVOLVED IN TEACHING:

30 periods (app.)

15. PRINCIPLE OF MATHEMATICAL INDUCTION

[6]

REVISION

[24]