

N. C. JINDAL PUBLIC SCHOOL, PUNJABI BAGH, NEW DELHI-110026, ANNUAL CURRICULUM, 2024-25

Class-XI	Subject-(041) Mathematics	Subject Teacher(Prepared by): SKS				
Preferred Text Book /Material	Chapter's Name	Chapter Topic/Sub Topic	Term	StartDate	End Date	No of Pds
Mathematics	Sets	Sets and their representations, Empty set, Finite and infinite sets ,Equal sets,	I	7/1/2024	7/8/2024	9
Textbook for		Subsets, Subsets of a set of real numbers especially intervals (with notations)				
Class XI		Universal set. Venn diagrams. Union and Intersection of sets. Difference of sets				
Published by		Complement of a set. Properties of Complement.				
NCERT						
Mathematics	<i>Relation and Functions</i>	Ordered pairs. Cartesian product of sets. Number of elements in the Cartesian product of two finite sets. Cartesian product of the set of reals with itself (upto $R \times R \times R$).	I	7/9/2024	7/16/2024	8
Exemplar		Definition of relation, pictorial diagrams, domain, co-domain and range of a relation.				
Problem		Function as a special type of relation. Pictorial representation of a function, domain,				
for Class XI		co-domain and range of a function. Real valued functions, domain and range of these				
Published by		functions, constant, identity, polynomial, rational, modulus, signum, exponential,				
NCERT		logarithmic and greatest integer functions, with their graphs. Sum, difference,				
		product and quotients of functions.				
Mathematics						
<i>Lab Mannual</i>	<i>Trigonometric Functions</i>	Positive and negative angles. Measuring angles in radians and in degrees and conversion from one measure to another. Definition of trigonometric functions	I	7/18/2024	7/25/2024	7
for Class XI		with the help of unit circle .Truth of the identity $\sin^2x + \cos^2x = 1$, for all x.				
Published by		Signs of trigonometric functions				
NCERT						
		Domain and range of trigonometric functions and their graphs. Expressing	I	7/26/2024	8/5/2024	7
		$\sin(x \pm y)$ and $\cos(x \pm y)$ in terms of $\sin x$, $\sin y$, $\cos x$ & $\cos y$ and their simple applications.				
		Deducing identities Identities related to \sin^2x , \cos^2x , $\tan^2 x$, \sin^3x , \cos^3x and \tan^3x				
	<i>Complex Nos & Quadratic Equations</i>	Inroduction, Need for complex numbers, especially $\sqrt{-1}$, to be motivated by inability to solvesome of the quadratic equations. Algebraic properties of	I	8/6/2024	8/9/2024	8
		complex numbers. Argand plane				

	<i>Linear Inequality</i>	Linear inequalities. Algebraic solutions of linear inequalities in one variable and their representation on the number line, Revision for First Periodic Test	I	8/12/2024	8/17/2024	7
	<i>Revision</i>					
	<i>Sequence & Series</i>	Arithmetic Mean (A.M.) Geometric Progression (G.P.), general term of a G.P	I	8/20/2024	8/27/2024	7
		sum of n terms of a G.P., infinite G.P. and its sum, geometric mean (G.M.), relation between A.M. and G.M	I	8/28/2024	9/2/2024	7
	<i>Statistics</i>	Measures of Dispersion: Range, Mean deviation, variance and standard deviation of ungrouped/grouped data.	I	9/3/2024	9/7/2024	5
	<i>Practicals & Revision</i>	Practical Examination & Revision for Half yearly Examination 2024-25	I	9/9/2024	9/11/2024	5
	<i>Half yearly Exam</i>	Half yearly Examination 2024-2025	I	9/13/2024	9/30/2024	HY
	<i>Permutations & Combinations</i>	Fundamental principle of counting. Factorial n. (n!) Permutations and combinations, derivation of Formulae for nPr and nCr and their connections, simple applications.	II	10/3/2024	10/5/2024	5
	<i>Binomial Expansion</i>	Historical perspective, statement and proof of the binomial theorem for positive integral indices. Pascal's triangle, simple applications.	II	10/16/2024	10/19/2024	5
	<i>Straight lines</i>	Brief recall of two dimensional geometry from earlier classes. Slope of a line and angle between two lines.	II	10/21/2024	10/24/2024	8
		Various forms of equations of a line: parallel to axis, point -slope form, slope-intercept form, two-point form, intercept form, Distance of a point from a line	II	10/25/2024	11/5/2024	7
	<i>Revision</i>	Revision for Second Periodic Test & Miscellaneous Questions	II	11/6/2024	11/23/2024	10
	<i>Conic Section</i>	Sections of a cone: circles, ellipse, parabola, hyperbola, a point, a straight line and a pair of intersecting lines as a degenerated case of a conic section.	II	11/25/2024	11/30/2024	9

		Standard equations and simple properties of parabola, ellipse and hyperbola.	II	12/2/2024	12/11/2024	7
		Standard equation of a circle.Miscellaneous Examples				
	Introduction to 3-D Geometry	Coordinate axes and coordinate planes in three dimensions. Coordinates of a point. Distance between two points.	II	12/12/2024	12/17/2024	7
	Limit & Derivative	Derivative introduced as rate of change both as that of distance function and geometrically.Intuitive idea of limit. Limits of polynomials and rational functions trigonometric, exponential and logarithmic functions.	II	12/18/2024	12/28/2024	7
		Definition of derivative relate it to slope of tangent of the curve, derivative of sum, difference, product and quotient of functions.	II	12/30/2024	1/11/2025	8
		Derivatives of polynomial and trigonometric functions.Miscellaneous Questions	II	1/14/2025	1/20/2025	4
	Probability	Events; occurrence of events, 'not', 'and' and 'or' events, exhaustive events, mutually exclusive events,, Axiomatic (set theoretic) probability, connections with other theories of earlier classes. Probability of an event, probability of 'not', 'and' and 'or' events	II	1/21/2025	1/31/2025	5
	Practicals & Revision	Practical Examination & Revision for Annual Examination 2024-25	II	2/3/2025	2/10/2025	7
	Revision	Chapterwise Revision for Annual Examination 2024-25	II	2/11/2025	2/17/2025	7
	Annual Exam	Annual Examination 2024-25	II	2/19/2025	2/28/2025	AE
	Prepared by:	SKS:Sig				
	Sub. Co-ordinator:	KKJ:Sign.				

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Marking Scheme for First Periodic Examination 2024-25

Class-XI Sub:-Mathematics (041) Time:-45 minutes

Sl.No.	Chapter/ Topic	Max.Marks
1	Sets	11
2	Relation & Functions	9
Total		20

Marking Scheme for Half Yearly Examination 2024-25

Class-XI Sub:-Mathematics (041) Time:-45 minutes

Sl.No.	Chapter/ Topic	Max.Marks
1	Sets	12
2	Relation & Functions	9
3	Trigonometric Functions	16
4	Complex Nos & Quadratic Equatons	8
5	Linear Inequality	10
6	Sequence&Series	15
7	Statically	10
Total		80

Marking Scheme for Second Periodic Examination 2024-25

Class-XI Sub:-Mathematics (041) Time:-45 minutes

Sl.No.	Chapter/ Topic	Max.Marks
1	Permutation & Combination	13
2	Binomial Theorem	07
Total		20

Marking Scheme for Third Periodic Examination 2024-25

Class-XI Sub:-Mathematics (041) Time:-45 minutes

Sl.No.	Chapter/ Topic	Max.Marks
1	Straight lines	20

Marking Scheme for Annual Examination 2024-25

Class-XI Sub:-Mathematics (041) Time:-45 minutes

S.No.	Chapter/ Topic	Max.Marks
1	Set	4
2	Relation and functions	4
3	Trigonometric functions	9
4	Complex Nos & Quadratic Equatons	4
5	Linear Inequality	6
6	Permutation & Combination	5
7	Binomial Theorem	4
8	Sequence&Series	4
9	Straight lines	8
10	Conic Section	9
11	Introduction of 3D	4
12	Limit & Derivative	9
13	Statically	4
14	Probability	6
Total		80

Co-ordinator Name-KKJ
Subject Teacher Name: SKS
Subject Teacher Name: KKJ

Sign.
Sign.
Sign.

N. C. JINDAL PUBLIC SCHOOL, PUNJABI BAGH, NEW DELHI-110026
CLASS: -XI (2024-2025)
MATHEMATICS (041)
Internal Assessment Max. Marks: 20
Evaluation Criteria

The weightage is as under

Periodic Test(Best 2 out of 3 test conducted)	10 Marks
The activity performed by the student throughout the year and record keeping:	5 Marks
Assessment of the activity performed during the year end test:	3 Marks
Viva-Voce:	2 Marks

Note: For activities NCERT Lab Manual may be referred.
