SYLLABUS FOR CLASS –XII MATHEMATICS (2025-2026)

(MONTH WISE)

NAME OF THE BOOK:MATHEMATICS –PART-I & II (Textbook for class XII) PUBLISHER :N C E R T.

MONTHS &NO. OF WORKING DAYS	CHAP.NO.	NAME OF THE CHAPTER
APRIL (22)	3 4	MATRICES DETERMINANTS
MAY (04)	2 5	INVERSE TRIGONOMETRIC FUNCTIONS CONTINUITY& DIFFERENTIABILITY
JUNE (11)	5	CONTINUITY& DIFFERENTIABILITY(CONTINUED) REVISION FOR PRE-MID TERM.
JULY (25)	7 8 6	INTEGRALS (CONTINUED) APPLICATION OF INTEGRALS APPLICATION OF DERIVATIVES
AUG (24)	9 10	DIFFERTIAL EQUATIONS VECTORS
SEPT (22)	11	REVISION FOR MID TERM &MID TERM EXAM. THREE DIMENSIONAL GEOMETRY
OCT (16)	13 12	PROBABILITY LINEAR PROGRAMMING
NOV (23)	1	RELATIONS AND FUNCTIONS. REVISION FOR PREBOARD EXAM.

EXAM.WISE SYLLABUS FOR CLASS –XII (2025-2026)

PRE MID-TERM EXAM. DATE OF EXAM. FROM : 01.07.2025 TO 07-07-25.

CHAPTER NO.	NAME OF THE CHAPTER	MARKS
Chapter – 2 Chapter – 3 Chapter – 4 Chapter – 5	INVERSE TRIGONOMETRIC FUNCTIONS MATRICES DETERMINANTS CONTINUITY & DIFFERENTIABILITY	40

MID-TERM EXAM. DATE OF EXAM.FROM: 08.09.2025 TO 24-09-25

CHAPTER NO.	NAME OF THE CHAPTER	MARKS
Chapter – 2 Chapter – 3 Chapter – 4 Chapter – 5 Chapter – 6 Chapter – 7 Chapter – 8 Chapter – 9	INVERSE TRIGONOMETRIC FUNCTIONS MATRICES DETERMINANTS CONTINUITY & DIFFERENTIABILITY APPLICATION OF DERIVATIVES INTEGRALS APPLICATION OF INTEGRALS DIFFERENTIAL EQUATIONS	80

1ST PRE -BOARD EXAMINATION : (DATE OF EXAM.FROM: 18.11.2025 TO 3-12-25)

2ND PRE -BOARD EXAMINATION : (DATE OF EXAM.FROM: 16.12.2025 TO 19-01-26)

(FULL SYLLABUS)

CHAPTER NO.	NAME OF THE CHAPTER	MAX. MARKS.-80
1.	RELATIONS AND FUNCTIONS	8
2.	INVERSE TRIGONOMETRIC FUNCTIONS	
3.	MATRICES	10
4.	DETERMINANTS	
5.	CONTINUITY & DIFFERENTIABILITY	35
6.	APPLICATION OF DERIVATIVES	
7.	INTEGRALS	
8.	APPLICATION OF INTEGRALS	
9.	DIFFERENTIAL EQUATIONS	
10.	VECTORS	14
11.	THREE DIM. GEOMETRY	
12.	LINEAR PROGRAMMING	5
13.	PROBABILITY	8

TOPICWISE SYLLABUS DIVISION WITH LEARNING OUTCOMES

CHAPTER	TOPIC	SUB-TOPIC	LEARNING OUTCOMES
1 (RELATION & FUNCTIONS)	RELATION	Concept of relation and diff. types of relation.	Students will able to identify diff. types of relations i-e reflexive, symmetric , transitive or equivalence relation.
	FUNCTION	Concept of function and diff. types of function.	Students will able to identify diff. types of functions i-e one-one,onto or bijective .
2 (INVERSE TRIG. FUNCTIONS)	EXISTANCE OF INVERSE OF A FUNCTION	Restricted domain & range of trig. Functions for existence of inv. Trig. functions.	Students will able to (i)find domain and range of diff. types of inv. Trig.functions (ii)find principal branch solution
	GRAPH OF INV.TRIG.FUN.	Graph of inv. trig. functions	Students will able to interpret the graph of inv. Trig. function.
3 (MATRICES)	MATRIX	Concept ,different types of matrices &algebraic operations on matrices	Students will able to identify diff. types of matrices and able to perform the algebraic operations on matrices.
	APP. OF MATRIX.	Application of matrix to solve word problems	Students will able to convert word problems to matrix form and then solve it
4 (DETERMINANTS)	CONCEPT OF DETERMINAT	Method of finding Determinant of diff. square matrices.	Students will able to evaluate value of a square matrices.
	APPLICATION OF DETERMINAT	Application of determinant to find area of triangle,collinearity..etc	Students will able to find area of triangle ,collinearity using determinant.
		Application of determinant to solve word problems	Students will able to find solution of a system of linear equation using adjoint method.
5 CONTINUITY & DIFFERENTIABILIY	CONTINUITY	Concept of limits and continuity at a point and at any point.	Students will able to find continuity of a function at a point and at any point.
	DIFFERENTIATION	Concept of diff. at a point and at any point, diff. of inv. trig. fun., parametric fun., logarithmic diff.	Students will able to find (i)diff. of a function at a point & at any pt. (ii)diff. of inv. trig.fun. (iii)diff. of parametric fun.(iv)diff. of $(fun)^{fun.}$
6 APP.OF DERIVATIVES	Application of derivatives	(i)concept of Rate of change of a quantity. (ii) concept of increasing & decreasing fun using derivative .(iii)local max.& min, abs.max &min	Students will able to apply the derivative concept and find (i) rate of change of one w.r.t other. (ii) inc/dec,st.inc/st.dec fun^{n} using diff. (iii) solution of real life problems involving extreme cases.
7 INTREGRALS	Indefinite integrals	Concept of indefinite integration i-e anti-derivative and different method of finding integration.	Students will able to find integration of different functions.
	Definite integrals	Concept of definite integration and method of finding it using properties	Students will able to apply properties of definite integration tofind the value definite integration of different functions.
CHAPTER	**TOPIC**	**SUB-TOPIC**	**LEARNING OUTCOMES**
8 APPLICATION OF INTEGRALS	Area under the curve using definite	Area under the line ,one curve and line and curve .	Students will able to find area of the region bounded by line(s) and simple curve(s) and axes.

	integration.		
9 DIFFERENTIAL EQUATIONS	Differential equations	Concept of differential equation with its order and degree . Different method of solving differential equation. Application of differential equation to solve word problems	Students will able to find degree and order of diff. equations ,General and particular solution. Students will able to identify the type of differential equation and the method of solving it . Students will able to solve real life word problem using differential equation.
10 VECTORS	Vectors in3dim.	Concept of vectors in3dim Add^{n} & sub^{n} of vectors . Product of vectors. Application of vectors.	Students will able to understand vectors in 3dim.,able to do algebraic operations on vectors , able to find area of triangle , area of parallelogram &able to derive trig. Formulas using vectors.
11 THREE DIM. GEOMETRY	Straight line in 3dim.	Concept of drs and dcs of a line and their relations. Equation of a line in scalar and vector form. Angle between lines, shortest distance between two lines and image of a point w. r. to a line .	Students will able to understand and apply drs and dcs of a line and their relations, able to write equation of line in diff. cases, able to find S.D between two lines ,angle between two lines ,foot of perpendicular and image of a point w.r.to a line . Students will able to solve real life problem using st. line concept.
12 LINEAR PROG. PROBLEM.	L.P.P	Concept of different terms like objective fun, constraints , feasible region ,corner points of LPP , optimum of an objective function.	Students will able to understand different terms in LPP , able to find the feasible region graphically & able to find optimum solution of the LPP.
13 PROBABILITY	Probability	Concept of conditional probability, independent events, multiplication theorem, law of total probability ,Bayes theorem &probability distribution.	Students will able to understand different concept of probability and solve different probability questions , able to solve different types case based problems using Bayes theorem and probability distribution .

**********2025-26**********