

THE WISDOM GLOBAL SCHOOL

SYLLABUS BIFURCATION

GRADE - XII

SUBJECT- MATHEMATICS

NAME OF THE BOOK - MATHEMATICS(NCERT/R D SHARMA)

YEAR-2024-2025

NAME OF THE TEACHER- Mr. SUSHIL CHANDRA BHATT

S.No.	BOOK NAME	MONTH	CHAPTER NO.	CHAPTER NAME	SUB.TOPIC	NO.OF DAYS REQUIRED	ACTIVITY/PROPS	SMART BOARD(PPT/VIDEO)	CHART
1	NCERT/R D SHARMA	APRIL	1	RELATIONS AND FUNCTIONS	Introduction	2	To verify that the relation R in the set L of all lines in a plane, defined by $R = \{(l, m) : l \perp m\}$ is symmetric but neither reflexive nor transitive.	https://video.wixstatic.com/video/f29914_1909580056a145a4b07365ab2c95508e/720p/mp4/file.mp4	NO
2		APRIL			Types of Relations - Reflexive, Symmetric, Transitive and Equivalence relation	3	To verify that the relation R in the set L of all lines in a plane, defined by $R = \{(l, m) : l \parallel m\}$ is an equivalence relation	NO	YES
3		APRIL			Functions , Tyes of functions	3	NO	NO	NO
4		APRIL			One to one and onto functions	3	To demonstrate a function which is not one-one but is onto.	NO	YES
5		APRIL			practice - Extra problems	3	NO	NO	NO
6		APRIL	2	INVERSE TRIGONOMETRIC FUNCTIONS	Introduction	2	NO	https://video.wixstatic.com/video/f29914_96f6bfc0a33748e6a71812a30fe092a8/720p/mp4/file.mp4	NO
7		APRIL			Definition - Inverse trigonometric functions	2		NO	NO
8		APRIL			Domain, Range and Graph of inverse trigonometric functions	2	To draw the graph of $1 \sin x -$, using the graph of $\sin x$ and demonstrate the concept of mirror reflection (about the line $y = x$).	NO	YES
9		MAY			Domain, Range and Graph of inverse trigonometric functions	3	To explore the principal value of the function $\sin^{-1}x$ using a unit circle.	NO	NO
10		MAY			Principle value branch	3	NO	NO	NO
11		MAY			Practice-Extra problems	2	NO	NO	NO

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12	NCERT/R D SHARMA	MAY	3	MATRICES	Introduction, Matrix, Order of a Matrix	2	NO	https://video.wixstatic.com/video/f29914_c7e123016c314136bce833872b00ffde/720p/mp4/file.mp4	NO
13		MAY			Types of Matrices	2	NO	https://video.wixstatic.com/video/f29914_dc679084a42f46b392aa62e545506921/720p/mp4/file.mp4	NO
14		MAY			Operation on Matrices	2	NO	https://video.wixstatic.com/video/f29914_17610df4253b4bc1825bc4905ebb5bb1/720p/mp4/file.mp4	NO
15		MAY			Properties of addition/multiplication of Matrices	2		NO	NO
16		MAY			Transpose of Matrix, Properties of transpose of Matrices	2	NO	NO	NO
17		MAY			Symmetric and Skew symmetric Matrices	1	NO	NO	NO
18		MAY			Invertible Matrices	1	NO	NO	NO
19		MAY			Practice-Extra problems	2		NO	NO
20	NCERT/R D SHARMA	MAY	4	Determinants	Introduction, Determinant of a Square Matrix	2		https://video.wixstatic.com/video/f29914_134928290224415db6aac29344cb54ef/720p/mp4/file.mp4	NO
21		MAY			Area of a Triangle	2		NO	NO
22		MAY			Minors and Cofactors	2	NO	NO	NO
23		MAY			Adjoint and Inverse of a Matrix	2	NO	NO	NO
24		MAY			Applications of Determinants and Matrices	1	NO	NO	NO
25		JUNE			Solution of system of linear equations using inverse of a Matrix	2		NO	NO
26		JUNE			practice - Extra problems	2	NO	NO	NO
27	NCERT/R D SHARMA	JUNE	5	CONTINUITY AND DIFFERENTIABILITY	Introduction	2		https://video.wixstatic.com/video/f29914_f98364cc192040b49acb19ce6a37ac0/720p/mp4/file.mp4	NO

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28		JUNE			Continuity, Algebra of continuous functions	2	To find analytically the limit of a function $f(x)$ at $x = c$ and also to check the continuity of the function at that point.	NO	NO
SUMMER BREAK									
29		JULY			Differentiability	2		NO	NO
30		JULY			Derivatives of Composite functions(by Chain rule)	2	NO	NO	NO
31		JULY			Derivatives of Implicit/Inverse trigonometric functions,	2	NO	NO	NO
32		JULY			Exponential and Logarithmic functions	2	To establish a relationship between common logarithm (to the base 10) and natural logarithm (to the base e) of the number x	NO	YES
33		JULY			Logarithmic Differentiation	2		NO	NO
34		JULY			Derivatives of functions in parametric forms,	2	NO	NO	NO
35		JULY			Second order derivative	1		NO	NO
36		JULY			Practice- extra problems	2	NO	NO	NO
37	NCERT/R D SHARMA	JULY	6	APPLICATIONS OF DERIVATIVES	Introduction	1	NO	https://video.wixstatic.com/video/f29914_2cad1e7cf34e4bee90204e6eb87d9fe3/720p/mp4/file.mp4	NO
38		JULY			Rate of change of Quantities	2		NO	NO
39		JULY			Increasing and Decreasing functions	2	To understand the concepts of decreasing and increasing functions.	NO	NO
40		JULY			Maxima and Minima	3	To understand the concepts of local maxima, local minima and point of inflection.	NO	NO
41		AUGUST			Maximum and Minimum values of a function in a closed interval	2	To understand the concepts of absolute maximum and minimum values of a function in a given closed interval through its graph.	NO	NO

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42		AUGUST			Practice- extra problems	2	To construct an open box of maximum volume from a given rectangular sheet by cutting equal squares from each corner.	NO	NO
43	NCERT/R D SHARMA	AUGUST	7	INTEGRALS	Introduction, Geometric interpretation of Indefinite integrals	2		https://video.wixstatic.com/video/f29914_28e4d15bd95f462cb4471b4108b051f8/720p/mp4/file.mp4	NO
44		AUGUST			Method of Intgration-by substitution, by trigonometric identities	3	NO	NO	NO
45		AUGUST			Integration by partial fractions, by parts	3	NO	NO	NO
46		AUGUST			Definite integrals	2	NO	NO	NO
47		AUGUST			Fundamental theorem of Calculus	2	NO	NO	NO
48		AUGUST			Properties of Definite integrals	2		NO	YES
49		AUGUST			Practice- extra problems	3	NO	NO	NO
50	NCERT/R D SHARMA	AUGUST	8	APPLICATIONS OF INTEGRALS	Introduction, Area under simple curves	2	NO	https://video.wixstatic.com/video/f29914_600e1e6073cd4e13971dbb18e855bf4f/720p/mp4/file.mp4	NO
51		AUGUST			Applications in finding the area under simple curves, especially lines , Parabolas	2		NO	NO
52		SEPTEMBER			Area of Circles/Ellipse	2	NO	NO	NO
53		SEPTEMBER			Practice- extra problems	2		NO	NO
54	NCERT/R D SHARMA	SEPTEMBER	9	DIFFERENTIAL EQUATIONS	Introduction	2	NO	https://video.wixstatic.com/video/f29914_2838077416df403281ee2b14e83f8713/720p/mp4/file.mp4	NO
MID TERM EXAMINATION									
55	NCERT/R D SHARMA	SEPTEMBER			Definition,order and degree	1	NO	NO	NO
56		SEPTEMBER			General and Particular solutions of a Differential Equation	2		NO	NO

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57		SEPTEMBER			Methods of solving First order, First degree Differential Equations- by variable separables	2	NO	NO	NO
58		SEPTEMBER			Homogeneous differential equations and their solution	2	NO	NO	NO
59		SEPTEMBER			Linear differential equations and their solution	2	NO	NO	NO
60		SEPTEMBER			practice- extra problems	2	NO	NO	NO
61	NCERT/R D SHARMA	SEPTEMBER	10	VECTORS	Introduction	1		https://video.wixstatic.com/video/f29914_d522700643f3428ab224db6c1c1daadd/720p/mp4/file.mp4	NO
62		SEPTEMBER			Directions Ratios and Direction Cosines of a vector	2	NO	NO	NO
63		SEPTEMBER			Types of Vectors	2	NO	NO	NO
64		OCTOBER			Positions vector of a point dividing a line segment in a given ratio	2	NO	NO	NO
65		OCTOBER			Properties and applications of Scalar and cross product of vectors	2	To verify geometrically that $\vec{c} \cdot \vec{a} = \vec{b} \cdot \vec{c} \cdot \vec{a} \cdot \vec{b}$	NO	NO
66		OCTOBER			Practice- extra problems	2	NO	NO	NO
67	NCERT/R D SHARMA	OCTOBER	11	THREE DIMENSIONAL GEOMETRY	Introduction	2	NO	https://video.wixstatic.com/video/f29914_c85ce234ff904863ae44f11b85d47078/720p/mp4/file.mp4	NO
68		OCTOBER			Directions Cosines and Direction Ratios of a line	2		NO	NO
69		OCTOBER			Equation of a line in Vector and cartesian form	2	NO	NO	NO
70		OCTOBER			Angle between two lines	2	NO	NO	NO

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71		OCTOBER			Shortest distance between two lines - Skew/parallel	2	To locate the points to given coordinates in space, measure the distance between two points in space and then to verify the distance using distance formula. 2. To measure the shortest distance between two skew lines and verify it analytically.	NO	NO
72		OCTOBER			Practice- extra problems	2	NO	NO	NO
73	NCERT/R D SHARMA	NOVEMBER	12	LINEAR PROGRAMMING	Introduction	1	NO	https://video.wixstatic.com/video/f29914_a5a785941c0044859088cdbe4d4e30dc/720p/mp4/file.mp4	NO
74		NOVEMBER			Related terminology such as Constraints, Objective function, Optimization	1	NO	NO	NO
		NOVEMBER			Graphical method of solution for problems in two variables	2	NO	NO	NO
		NOVEMBER			Feasible and infeasible regions(bounded)	1	NO	NO	YES
		NOVEMBER			Optimal feasible solutions (upto 3 non-trivial constraints)	2		NO	NO
		NOVEMBER			Practice- extra problems	2	NO	NO	NO
	NCERT/R D SHARMA	NOVEMBER	13	PROBABILITY	Introduction	1	NO	https://video.wixstatic.com/video/f29914_98b0ac0958454acfb315937b57f64cad/720p/mp4/file.mp4	NO
		NOVEMBER			Conditional Probability, Properties of conditional probability	2	To explain the computation of conditional probability of a given event A, when event B has already occurred, through an example of throwing a pair of dice.	NO	NO
		NOVEMBER			Multiplication theorem of Probability	1	NO	NO	NO
		NOVEMBER			Independent events	1	NO	NO	NO

