



ST. LAWRENCE HIGH SCHOOL

27, BALLYGUNGE CIRCULAR ROAD, KOLKATA - 700019

Session Plan / Syllabus Coverage for the Academic Year 2025-2026



Subject : MATHEMATICS

Term: FIRST

Name of the Subject Co - ordinator : CHAITALI ROY

Name of the book: 1. Understanding ISC Mathematics (XII) by M.L.Agarwal (MLA)

No. of Working Days : 103

No. of Periods Available: 65

Class : XII

Section : A,B

MONTH	NO. OF PERIODS	LESSONS	TOPICS COVERED	CLASS WORK	TEACHING AIDS
APRIL	18	Section - A 1)Ch-1-Relations and Functions, Pg-1 2) Ch-2-Inverse Trigonometric Functions, Pg-92 3) Ch-3-Matrices, Pg-59	1)Types of Relations, Domain & Range of a function, Types of functions, Composite functions and Invertible functions 2)Definition, Domain, Range, Principal Value Branch, 3) Types of Matrices and operations, Order, Equality, Transpose , Symmetric and Skew Symmetric matrix.	1)Selected question from Ex - 1.1 to 1.5 – Pg - 18 to 70 2) Selected questions from Ex-2.1,2.2 – Pg- 102 to 147 3) Selected questions from Ex-3.1 to 3.5-Pg-165 to 218	Cardboard, strings of different colours, pins, adhesive.
MAY	10	1)Ch-2-Inverse Trigonometric Functions, Pg-92, Contd. 2) Ch-4-Determinants, Pg-230	1)Elementary properties and application of formulae. 2)Order, Minors, Co factors, Expansion, Properties of determinants. Adjoint and Inverse of matrix, Conditions for consistency of equations in two and three variables. Martin's rule. Application of determinant.	1) Ex 3.5 contd.. 2) Selected questions from Ex-4.1 to 4.4-Pg-238 to 304	Cardboard, strings of different colours, pins, adhesive
JUNE	12	1) Ch-5-Continuity and Differentiability, Pg-336, 2) Ch-7-Applications of Derivatives,Pg-519 3) Ch-4-Determinants contd.. <u>Unit Test 1 on 16th June, 2025)</u> <u>(Syllabus for Unit Test 1: Relations & Matrices)</u>	1)Continuity, Differentiability by First principle. First order derivatives and Second order derivatives. 2)Tangent and Normal, Rate Measure, Increasing and Decreasing function, Maxima and Minima 3)Determinants contd..	1)Selected questions from Ex-5.1 to 5.10-Pg-351 to 442 2)Selected questions from Ex-7.1 to Ex-7.8 - Pg- 530 to 632 3) Selected questions from Ex-4.5-Pg-319 to 321	Cardboard, strings of different colours, pins, adhesive.
JULY	25	1)Ch-8-Integral, Pg- 651 Section – B 2)Ch-1-Vector, Pg- 1161 3) Ch-5-Continuity and Differentiability, Pg-336	1)Integration as the inverse of differentiation, Antiderivatives of polynomials and functions \sin^2x , \cos^2x , \sin^3x , \cos^3x , \sin^4x , \cos^4x , $1/x$, e^x etc Integration by substitution, Two special forms, Four standard integrals, Seven more standard integrals, Integrals of the types: $\int \frac{px+q}{ax^2+bx+c} dx$, $\int \frac{px+q}{\sqrt{ax^2+bx+c}} dx$, $\int \frac{dx}{a\cos x+b\sin x+c}$, $\int \frac{p\cos x+q\sin x}{a\cos x+b\sin x} dx$, $\int \frac{dx}{a\cos^2x+b\sin^2x+c}$ etc Integration by partial fractions 2) Types of Vectors, operations, Dot product, Cross product, Scalar Triple product	1)Selected questions from Ex-8.1 to Ex-8.8 - Pg- 654 to 719. 2)Selected questions form Ex-1.1 to Ex-1.4-Pg- 1186 to 1254(Section – B) 3) Selected question from Ex- 5.11 to 5.13- Pg-461 to 480	White chart paper, coloured pens, pencil, eraser and thin wires or wool

Teachers are requested to prepare a LESSON PLAN for each Topic monthwise.
Kindly mention the chapters included for Terminal Examinations

Submitted on : 13.5.25
21.04.2025

Signature of the Co Teachers : 1. Chaitali Roy 2. Indranil Ghosh

Academic Co-ordinator: Soumak Chatterjee

PRINCIPAL

VICE PRINCIPAL



ST. LAWRENCE HIGH SCHOOL

27, BALLYGUNGE CIRCULAR ROAD, KOLKATA- 700019

Session Plan / Syllabus Coverage for the Academic Year 2025-2026

Term: FIRST & REHEARSAL TEST



Subject : MATHEMATICS

Name of the books: 1. Understanding ISC Mathematics (XII) by M.L.Agarwal (MLA)

No. of Working Days : 103+50

No. of Periods Available: 32+42

Class : XII

Section : A,B

MONTH	NO. OF PERIODS	LESSONS	TOPICS COVERED	CLASS WORK	TEACHING AIDS
AUGUST	22	(Project 1 submission on 25.8.2025) OR Section – C 1) Ch-1- Application of Calculus in Commerce and Economics, Pg-1443 2)Ch-2-Linear Regression, Pg-1476	1)Cost function, Av. Cost, MC, MAC,MR and its interpretation, Demand function, Revenue and Profit functions and breakeven point and problem sums. 2)Properties of lines of regression, Scatter diagrams, Lines of best fit, Regression coefficients. Identification of regression equations, estimation of the value of one variable using the value of other variable form appropriate line of regression	1) Selected questions from Ex-1.1 to Ex-1.4-Pg -1446 to 1471 (Section - B) 2) Selected questions from Ex-2-Pg-1493 to 1496 (Section - C)	Cardboard, white paper, geometry box, paper arrow heads, video
SEPTEMBER	10	Section-A 1) Ch-8- Integrals contd.. (First Term Exam begins from 15.09.2025), Syllabus for First Term – (Section – A-Ch-1,2,3,4,5,7,8(Ex-8.1 to Ex-8.10), (Section - B - Ch-1), (Section- C- Ch-1,2)	Revision 1) Integral by parts and other types, Fundamental theorem of integral calculus, Evaluation of definite integrals by substitution, Properties of definite integrals.	1) Selected questions from Ex-8.9 to Ex-8.18-Pg-725 to 860	Geometrical instruments, thin wires, sketch pens, chart paper, and graph papers
OCTOBER	15	Second Term begins from 07 th Oct, 2025 1) Ch-9-Differential Equations, Pg-882 2) Ch-10- Probability-Pg-990 Section – B 3) Ch-2-Three Dimensional Geometry - Pg -1271	1) Order and degree, Solution and Formation, homogeneous and linear differential equation 2) Conditional probability, multiplication theorem, Independent events, Laws of total probability, Baye's theorem, Probability distribution and its mean. 3) Cartesian and vector equations and their intersections, Co planar and skew lines, Shortest distance, Different forms, Angle between two planes, line and a plane	1) Selected questions from Ex-9.1 to Ex-9.8-Pg-885 to 979 2) Selected questions from Ex-10.1 to Ex-10.9-Pg-1000 to 1140 3) Selected questions from Ex-2.1 to Ex-2.1 to Ex-2.8-Pg-1283 to 1388 (Section-B)	Cardboard, white paper, geometry box, paper arrow heads, video
NOVEMBER	21	(Project 2 submission on 04.11.2025) (Unit Test 2 begins from 17 th November, 2025) Syllabus: Integrals& Differential Equations Section – B 1) Ch-3-Application of Integrals-Pg-1405 OR Section – C 2) Ch-3-Linear Programming – Pg-1501	1)Area enclosed by simple curves and co ordinate axes and also between two curves 2)Related terminology: objective function, constraints, optimization, advantages of L.P.P, Mathematical formulation of L.P.P, Graphical method of solution for problems in two variables, feasible and infeasible regions, optimum feasible solutions	1) Selected questions from Ex - 3, Pg- 1435 to 1438 Section – B) 2) Selected questions from Ex- 3.1 to Ex-3.2 – Pg- 1506 to 1529	Two pieces of plywood, a thin wooden rod with nuts and bolts fixed on both sides, three pieces of wires, pen or pencil, geometry box and a pair of dice
DECEMBER	06	Rehearsal Examination begins from 08 th Dec, 2025 Syllabus for Rehearsal Examination-(Section- A- Ch-1,2,3,4,5,7,8, 9,10), (Section-B-Ch-1,2,3),(Section-C Ch-1,2,3)	Revision and examination continues till 19 th Dec, 2025	Revision for Rehearsal Test	

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Kindly mention the chapters included for Terminal Examinations

Signature of the Co Teachers : 1. *Chaitali Roy* 2. *Indranil Ghosh*

PRINCIPAL

Submitted on : ~~21.04.2025~~ *13.5.25*

Academic Co-ordinator: *Soumak Chatterjee*

VICE PRINCIPAL

Rftgj