



ST. LAWRENCE HIGH SCHOOL

27, BALLYGUNGE CIRCULAR ROAD, KOLKATA - 700019

Session Plan / Syllabus Coverage for the Academic Year 2026-2027



Subject : APPLIED MATHEMATICS

Term: FIRST

Name of the Subject Co-ordinator : INDRANIL GHOSH

Name of the Textbook: Understanding ISC Applied Mathematics (XI) by M.L.Agarwal

No. of Working Days : 56

No. of Periods Available:63

Class : XI

Section : B

MONTH	NO. OF PERIODS	LESSONS	TOPICS COVERED	CLASS WORK	TEACHING AIDS
APRIL	13	1)Sets 3)Trigonometry 10)Straight lines	Set Theory-Pg1.Relation between radian and degrees-Pg45.Allied Angles.Locus-Pg481,shifting of origin.Slope, two-point form, intercept form of straight line,etc.	Solutions of problems from the exercises of Set Theory,Trigonometry, Straight lines.	Using Venn diagram, verify the distributive law for three given non-empty sets A, B and C. Establish the relationship between the measure of an angle in degrees and in radians.
MAY	12	1)Sets(continued) 2) Relations and Functions 3)Trigonometry(continued) 11)Straight lines(continued) 9)Sequences & Series	Cartesian product-Pg45.Domain & Range of Relation,Formulae of Compound Angles, Sums & Products. Angle between two straight lines,distance of a point from a straight line & equation of angle bisectors of straight line. General term-Pg406,Sum of n terms of an A.P. Inserting A.M.	Solutions of problems from the exercises of Sets. Compound Angles,Sums and Products,Relations.Straight lines.A.P.	Obtain the equation of the straight line in the normal form, for each of the following, on the same graph: (i) $\alpha < 90^\circ$ (ii) $90^\circ < \alpha < 180^\circ$. Distinguish between a relation and a function graphically. Drawing the graph of $\cos x$, $\sin x$.
JUNE	14	2)Relations & Functions 3)Trigonometry. 6)Quadratic Equations 10)Sequences & Series. First Semester Unit Test on 15.6.26.Syllabus-Ch-1(Ex-1.1-1.3),Ch-3(Ex-3.1-3.3)	Graphs of functions.Domain & Co-domain(Range) of Functions. Formulae of Multiple angles. Relation between roots and coefficients of quadratic equations-Pg247.General term-Sum of n terms of a G.P.Inserting G.M.Summation of series.	Solutions of problems from the exercises of Quadratic equations.Functions,Multiple Angles. G.P.	From the graph of quadratic equation $f(x)=ax^2+bx+c$, find maximum/minimum value of the function, sign of the expression. Obtain a formula for the sum of the squares,cubes of 'n' natural no.s.
JULY	24	4)Logarithm 5)Complex Numbers 7) Linear and Quadratic Inequalities 8)Permutations & Combinations. (Project 1 submission on 5.7.26)	Logarithm-Pg181.Algebra of Complex numbers-Pg204,etc.Inequalities-Pg289 Method of Intervals.Solution of linear inequations in one variables. ${}^n C_r$, ${}^n P_r$, n!-Pg313 . Circular Permutations,etc.	Solutions of problems from the exercises of Logarithm,Complex Numbers,Inequalities , Permutations.	Using Argand plane, interpret geometrically, the meaning of i and its Integral powers.

Teachers are requested to prepare a LESSON PLAN for each Topic monthwise.

Kindly mention the chapters included for Terminal Examinations

Signature of the Co Teachers : 1. *Indranil Ghosh* 2.
20.4.26

Submitted on : 20.4.26

Academic Co-ordinator: *Soumak Chatterji*

PRINCIPAL

[Signature]

VICE PRINCIPAL

[Signature]



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Session Plan / Syllabus Coverage for the Academic Year 2026-2027



Subject :APPLIED MATHEMATICS

Term: FIRST & SECOND

Name of the Subject Co-ordinator : INDRANIL GHOSH

Name of the Textbook:Understanding ISC Applied Mathematics (XI) by M.L.Aggarwal

No. of Working Days :56, 36 + 42

No. of Periods Available: 27+39

Class : XI

Section : B

MONTH	NO. OF PERIODS	LESSONS	TOPICS COVERED	CLASS WORK	TEACHING AIDS
AUGUST	24	5.Complex Numbers.(continued). 8.Permutations & Combinations(continued).	Square root of a complex number.Cube roots of unity.Arrangements and selections and their applications,etc.Mixed problems on permutation and combinations.	Solution of problems from the exercises of Complex Numbers, Combinations.	Application of Pigeon Hole Principle using deck of cards.
SEPTEMBER	10	12.Circles & Parabola. <u>First Semester Block Test begins from 7.9.26.</u> <u>Syllabus : Ch-1,2,3,4,5,6,7,8,10,11.</u> <u>Second Semester begins from 21.9.26</u>	Centre and radius of circle-Pg562.Various standard equations of circle,diameter form,parametric form,etc.	Solutions of problems from the exercises of Circles.	Let S and S' be two(non-concentric) circles with centres A , B and radii r, r' and d be the distance between their centres. Finding relation between r, r' and d with respect to relative position of two circle.
OCTOBER	15	9.Binomial Theorem. 13.Limits & Derivatives. <u>(Project 2 submission on 27.10.26)</u>	General term & middle term of a binomial expansion-Pg378. Some standard limits-Pg600,etc.	Solutions of problems from the exercises of Binomial Theorem ,Limits.	Construct a Pascal's triangle to write a binomial expansion for a given positive integral exponent.
NOVEMBER	17	12.Parabola. 13.Limits & Derivatives.(continued).	Differentiation using first Principles.Fundamental theorems on differentiation. Derivatives of polynomial and trigonometric functions.SP/PL=e.Parabola.Ellipse.Hyperbola. Definition of Foci, Directrix, Latus Rectum,etc. Various forms and properties of Parabola.	Solutions of problems from the exercises of Derivatives.	A pegboard with nails to create a parabolic shape using rubber bands or threads,demonstrating the parabola's shape using the tangent method.

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20.4.26

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



Subject : APPLIED MATHEMATICS

Term: SECOND

Name of the Subject Co-ordinator : INDRANIL GHOSH

Name of the Textbook: Understanding ISC Applied Mathematics (XI) by M.L.Agarwal

No. of Working Days : 42, 58

No. of Periods Available: 48

Class : XI

Section : B

MONTH	NO. OF PERIODS	LESSONS	TOPICS COVERED	CLASS WORK	TEACHING AIDS
DECEMBER	17	14.Statistics 15.Probability	Dispersion-Pg674,Skewness & Kurtosis,Correlation Analysis.Linear Regression.Events-Pg776, sure events, impossible events, mutually exclusive and exhaustive events. Definition of probability of an event,etc.	Solutions of problems from the exercises of Probability and Statistics.Revision from textbook .	Correlation between the height of the student and the proficiency in long jump. Construct the tree structure of the outcomes of a random experiment, when elementary events are not equally likely.
JANUARY	22	16.Mathematical Reasoning. 17.Compound Interest and Annuity. 18.Taxation 19.Utility Bills	Pg815-Understanding of "if and only if (necessary and sufficient) condition", "implies", "and/or", "implied by", "and", "or", "there exists".Difference between contradiction,converse and contrapositive.Logical problems involving odd man out, syllogism, blood relation,coding decoding.Interest Rates-Pg884, net present value, future value:Annuities, Calculating value of Regular Annuity.Tax-Pg920,GST,Bills-Pg944, tariff rates, fixed charge, surcharge, service charge.	Solutions of problems from the exercises of Mathematical Reasoning and Financial Mathematics .Revision from textbook .	Obtain truth values of compound statements of the type $p \vee q$ by using switch connection in parallel. Prepare the best option plan to buy a product by comparing cost, shipping charges, tax (under GST), and hidden cost, overhead cost etc.
FEBRUARY	09	<u>Second Semester Block Test begins from 15.2.2027.</u> <u>Syllabus for Second Semester Block Test : Ch 1 to Ch 19.</u>	Revision of full syllabus from textbook and reference books.	Solutions of problems from model sample papers.	
MARCH	00	Correction work continues.			

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20.4.26

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