



# NOPANY HIGH

(I.C.S.E. & I.S.C Affiliated)  
2-C, Nando Mullick Lane, Kolkata - 700006

## Syllabus

Academic Session: (2024-2025)

Class: XI (Sci) (Unit –I)

### SUBJECT : English Language

**Textbook Name : Total English for class 11**

MONTH	TOPIC	NO. OF PERIODS	WORKSHEETS/ACTIVITY
<b>April'24</b>	1.Proposal writing	2	
	Class Test	1	
	2. Film Review	1	Worksheet will be provided
	Class Test	1	
	3. Test papers 2 and	3	
<b>May'24</b>	1.Report writing	2	
	Class Test	1	
	2. Test papers 4 and 5	3	Worksheet will be provided
	Class Test	1	
<b>June'24</b>	1.Book Review	2	
	Class Test	1	
	2. Test papers 6 and 7	3	Worksheet will be provided
	Class Test	1	
		3	
<b>July'24</b>	<b>1. Speech writing</b>	<b>2</b>	<b>Worksheet</b>
	<b>2. Test papers 8 and 9</b>	<b>2</b>	
<b>August24</b>	1. Article writing	2	<b>Worksheet</b>
	2. Test on Oral and Aural	4	

<b>SUBJECT : English Literature (Science and Humanities)/</b>			
<b>Textbook Name : Prism, Rhapsody and Macbeth</b>			
<b>Publisher : Evergreen Publication and Oxford</b>			
<b>MONTH</b>	<b>TOPIC</b>	<b>NO. OF PERIODS</b>	<b>WORKSHEETS/ACTIVITY</b>
<b>April'24</b>	<b>1. Abhisara</b>	<b>5</b>	
	<b>2. Class Test</b>	<b>1</b>	<b>Worksheet will be provided</b>
	<b>3. Sonnet 116</b>	<b>2</b>	
<b>May'24</b>	<b>1. Sonnet 116</b>	<b>3</b>	
	<b>2. Class Test</b>	<b>1</b>	
	<b>3. A Living God</b>	<b>3</b>	<b>Worksheet will be provided</b>
<b>June'24</b>	<b>1. A Living God</b>	<b>4</b>	
	<b>2. Class Test</b>	<b>1</b>	
	<b>3. A Paper Menagerie</b>	<b>2</b>	<b>Worksheet will be provided</b>
<b>July'24</b>	<b>1. A Paper Menagerie</b>	<b>5</b>	
	<b>2. Class test</b>	<b>1</b>	<b>Worksheet will be provided</b>
	<b>3. Thank you Ma'am</b>	<b>7</b>	
	<b>4. Class Test</b>	<b>1</b>	
<b>August24</b>	<b>1. Macbeth (Act 1)</b>	<b>10</b>	
	<b>2. Class test</b>	<b>1</b>	<b>Worksheet will be provided</b>
	<b>3. Revision</b>	<b>2</b>	
<b>Project</b>	<b>Write a short story based on a poem</b>		<b>Submission date: 2nd July 2024</b>
<b>Note: No of periods mentioned above may vary</b>			

<b>SUBJECT : Mathematics</b>			
<b>Textbook Name : ISC Mathematics (XII) (Volume I &amp; II)</b>			
<b>Author : M L AGGARWAL</b>			
<b>Publisher : Avichal Publishing Company</b>			
<b>MONTH</b>	<b>TOPIC</b>	<b>NO.OF PERIODS</b>	<b>WORKSHEET S /ACTIVITY</b>

April'24	<p style="text-align: center;"><b>SECTION - A</b></p> <p><b>1. Sets</b></p> <ul style="list-style-type: none"> <li>➤ Sets and their representations.</li> <li>➤ Empty set. Finite and Infinite sets.</li> <li>➤ Equal sets. Subsets. Subsets of a set of real numbers especially intervals (with notations). Power set. Universal set.</li> <li>➤ Venn diagrams. Union and Intersection of sets. Practical problems on union and intersection of two and three sets.</li> <li>➤ Difference of sets. Complement of a set.</li> <li>➤ Properties of Complement of Sets.</li> </ul>	5	Worksheet will be provided
	Class Test	1	
	<p><b>2. Relations &amp; Functions</b></p> <ul style="list-style-type: none"> <li>• <b>Basic concepts of Relations and Functions</b></li> <li>➤ <i>Ordered pairs, sets of ordered pairs.</i></li> <li>➤ <i>Cartesian Product (Cross) of two sets, cardinal number of a cross product.</i></li> <li><i>Relations as:</i> <ul style="list-style-type: none"> <li>➤ <i>an association between two sets.</i></li> <li>➤ <i>a subset of a Cross Product.</i></li> <li>➤ <i>Domain, Range and Co-domain of a Relation.</i></li> </ul> </li> <li><i>Functions:</i> <ul style="list-style-type: none"> <li>➤ <i>As special relations, concept of writing “y is a function of x” as <math>y = f(x)</math>.</i></li> <li>➤ <i>Introduction of Types: one to one, many to one, into, onto.</i></li> <li>➤ <i>Domain and range of a function.</i></li> <li>➤ <i>Sketches of graphs of exponential function, logarithmic function, modulus function, step function and rational function.</i></li> </ul> </li> </ul>	5	Worksheet will be provided
	Class Test	1	
May'24	<p><b>3. Trigonometry</b></p> <ul style="list-style-type: none"> <li>• <b>Angles and Arc lengths</b> <ul style="list-style-type: none"> <li>➤ <i>Angles: Convention of sign of angles.</i></li> <li>➤ <i>Magnitude of an angle: Measures of Angles; Circular measure.</i></li> <li>➤ <i>The relation <math>S = r\theta</math> where <math>\theta</math> is in radians. Relation between radians and degree.</i></li> <li>➤ <i>Definition of trigonometric functions with the help of unit circle.</i></li> <li>➤ <i>Truth of the identity <math>\sin^2 x + \cos^2 x = 1</math></i></li> </ul> </li> <li><b>NOTE:</b> <i>Questions on the area of a sector of a circle are required to be covered.</i></li> <li>• <b>Trigonometric Functions</b> <ul style="list-style-type: none"> <li>➤ <i>Relationship between trigonometric functions.</i></li> <li>➤ <i>Proving simple identities.</i></li> <li>➤ <i>Signs of trigonometric functions.</i></li> <li>➤ <i>Domain and range of the trigonometric functions.</i></li> <li>➤ <i>Trigonometric functions of all angles.</i></li> <li>➤ <i>Periods of trigonometric functions.</i></li> </ul> </li> </ul>	17	Worksheet will be provided

	<ul style="list-style-type: none"> <li>➤ <i>Graphs of simple trigonometric functions (only sketches).</i></li> </ul> <p><b>NOTE:</b> <i>Graphs of <math>\sin x</math>, <math>\cos x</math>, <math>\tan x</math>, <math>\sec x</math>, <math>\operatorname{cosec} x</math> and <math>\cot x</math> are to be included.</i></p> <ul style="list-style-type: none"> <li>• <b>Compound and multiple angles</b> <ul style="list-style-type: none"> <li>➤ <i>Addition and subtraction formula: <math>\sin(A \pm B)</math>; <math>\cos(A \pm B)</math>; <math>\tan(A \pm B)</math>; <math>\tan(A + B + C)</math> etc., Double angle, triple angle, half angle and one third angle formula as special cases.</i></li> <li>➤ <i>Sum and differences as products .</i></li> <li>➤ <b>Trigonometric Equations</b></li> </ul> </li> </ul>		
	Class Test	1	
<b>June'24</b>	<b>Principle of Mathematical Induction</b>	4	Worksheet will be provided
	Class Test	1	
	<b>Complex Numbers</b>	10	Worksheet will be provided
	Class Test	1	
<b>July'24</b>	<b>Quadratic Equations</b>	4	Worksheet will be provided
	Class Test	1	
	<b>Inequalities</b>		Worksheet will be provided
	Class Test	1	
	<p><b>Straight Lines</b></p> <ul style="list-style-type: none"> <li>• <i>Basic concepts of Points and their coordinates.</i></li> <li>• <i>The straight line - Slope or gradient of a line.</i> <ul style="list-style-type: none"> <li>➤ <i>Angle between two lines.</i></li> <li>➤ <i>Condition of perpendicularity and parallelism.</i></li> <li>➤ <i>Various forms of equation of lines.</i></li> <li>➤ <i>Slope intercept form.</i></li> <li>➤ <i>Two-point slope form.</i></li> <li>➤ <i>Intercept form.</i></li> <li>➤ <i>Perpendicular /normal form.</i></li> <li>➤ <i>General equation of a line.</i></li> <li>➤ <i>Distance of a point from a line.</i></li> <li>➤ <i>Distance between parallel lines.</i></li> <li>➤ <i>Equation of lines bisecting the angle between two lines. -Equation of family of lines -Definition of a locus.</i></li> </ul> </li> <li>➤ <i>Equation of a locus.</i></li> </ul>	10	Worksheet will be provided
	Class Test	1	
<b>August'24</b>	<p><b>Statistics</b></p> <ul style="list-style-type: none"> <li>• <i>Mean deviation about mean and median.</i></li> </ul>	5	Worksheet will be provided

	<ul style="list-style-type: none"> <li>Standard deviation - by direct method, short cut method and step deviation method.</li> </ul> <p><b>NOTE:</b> Mean, Median and Mode of grouped and ungrouped data are required to be covered.</p>		
	Class Test	1	
<b>August'24</b>	<p style="text-align: center;"><b>SECTION B</b></p> <p><b>Conic Section</b></p> <p>Sections of a cone, ellipse, parabola, hyperbola, a point, a straight line and a pair of intersecting lines as a degenerated case of a conic section.</p> <ul style="list-style-type: none"> <li><b>Standard equations and simple properties of parabola, ellipse and hyperbola.</b></li> </ul>	10	Worksheet will be provided
	Class Test	1	
<b>August'24</b>	<p style="text-align: center;"><b>SECTION C</b></p> <p><b>Statistics</b></p> <ul style="list-style-type: none"> <li>Combined mean and standard deviation.</li> <li>- If the period is even, then the centered</li> <li>The Median, Quartiles, Deciles, Percentiles moving average is to be found out and and Mode of grouped and ungrouped data.</li> </ul>	5	Worksheet will be provided
	Class Test	1	

### SUBJECT :Computer Science

**Textbook Name** : Understanding ISC Computer Science (Java with BlueJ) Class XI  
**Publisher** : Arya Publishing Company  
**Author Name** : Vijay Kumar Pandey and Dilip Kumar Dey

MONTH	TOPIC	NO.OF PERIODS	WORKSHEETS/ACTIVITY
<b>April'24</b>	<b>Chapter 4:</b> Introduction to Java Language	5	
	<b>Chapter 5:</b> Concept of Data types	4	<b>Lab Activity</b>
<b>May'24</b>	<b>Chapter 5:</b> Concept of Data types(Cont.)	2	
	<b>Class Test</b> (Based on Java Concepts)	1	
	<b>Chapter 6 :</b> Operators and Expressions	5	<b>Lab Activity</b>

	<b>Class Test(Practical)</b>	1	
<b>June'24</b>	<b>Chapter 7:</b> Conditional and Looping Statements	8	<b>Lab Activity</b>
	<b>Class Test(Practical)</b>	1	
<b>July'24</b>	<b>Chapter 1:</b> Numbers (Numbers in different bases and their arithmetical operations)	12	<b>Worksheet</b>
	<b>Chapter 2:</b> Encoding	10	<b>Lab Activity</b>
	Class Test (Theory)	1	
<b>Aug'24</b>	<b>Chapter 3:</b> Propositional Logic, Hardware Implementation, Arithmetical Operations	15	<b>Worksheet</b>
	Revision (Java)	7	<b>Lab Activity</b>
<b>Sept'24</b>	Revision (Propositional Logic)	5	
<b>Project</b>			<b>10 Programs on Conditional Statements, Switch Case, Loops and Nested Loops</b> <b>List of programs will be provided later.</b>
<b>* Note: No. of Periods mentioned may vary</b>			

### SUBJECT : PHYSICS

**Text Book : Nootan ISC Physics for Class-XI**

**Publisher : Nageen Prakashan**

**Text Book for Physics Practical: ISC Practical Physics (Vol-I) for Class XI**

MONTH	TOPIC	NO.OF PERIODS	WORKSHEETS/ACTIVITY
April'24	❖ <u>PHYSICAL WORLD AND MEASUREMENT</u> 1. Units and Measurements : Error analysis and Significant Figures 2. Dimensional Analysis	3 2	Worksheet will be provided
	❖ <u>KINEMATICS</u> 3. Motion in a straight line	5	
	Class Test	1	
May'24	4. Motion in a plane ❖ <u>LAWS OF MOTION</u> 5. Newton's Laws of Motion	6	Worksheet will be provided

		4	
	Class Test	1	
June'24	6. Friction 7. Uniform Circular Motion 8. Work, Energy and Power	3 2 6	Worksheet will be provided
	Class Test	1	
July'24	❖ <u>MOTION OF SYSTEM OF PARTICLES AND RIGID BODY</u>  9. Centre Of Mass. 10. Rotational Motion of a rigid body: Moment of Inertia. 11. Gravitation: Planets and Satellites	  3 8 8	Worksheet will be provided
	Class Test	1	
August'24	❖ <u>PROPERTIES OF MATTER</u> 12. Elasticity 13. Fluid Pressure 14. Flow of Liquid 15. Surface Tension Revision	 4 2 3 3 8	Worksheet will be provided
	Class Test	1	
❖ Practicals	As per ISC guidelines (Will be discussed in class)		
❖ Project	Friction/ Gravitation (Will be discussed in class)		
( The above mentioned periods are approximate)			

### SUBJECT : Chemistry

**Textbook Name : ISC Chemistry**  
**Author : K.L Chugh**  
**Publisher : Kalyan Kalyani**  
**Practical Book : Nova ISC Chemistry Lab Manual ( class XI)**  
**Publisher : Nova Publications**

MONTH	TOPIC	NO. OF PERIODS	WORKSHEETS/ACTIVITY
April'24	Ch-2: Structure of Atom	8	
May'24	Ch-3: Classification of elements and periodicity in properties	4	
	Class Test	1	Worksheet will be provided
June'24	Ch-4: Chemical Bonding	10	
	Class Test	1	
July'24	Ch-12: Organic chemistry - some basic principles and techniques	8	

	Class Test	1	Worksheet will be provided
	Ch-13: Hydrocarbons		
	A. Alkanes	5	
	B. Alkenes	5	
<b>August 24</b>	Ch-13,C: Alkynes	5	
	Revision & pending Work		Worksheet will be provided
<ul style="list-style-type: none"> <li>• <b>Project will be discussed in class.</b></li> </ul>			

### SUBJECT :BIOLOGY

**Text Book : ISC Srijan Biology XI**  
**Publisher : Srijan Publishers Private Limited**  
**Author : Veer Bala Rastogi**

MONTH	TOPIC	NO.OF PERIODS	WORKSHEETS/ACTIVITY
<b>April'24</b>	<b>UNIT 1: Diversity in Living Organisms</b> Chapter 1: The Living World Chapter 2: Biological Classification	2 6	Worksheets will be provided
	Class Test	1	
	<b>UNIT 3: Cell Structure And Function</b> Chapter 8: Cell:The Unit of Life Chapter 10: Cell cycle and cell division.	3 3	Worksheets will be provided
	Class Test	1	
<b>May'24</b>	<b>UNIT 1: Diversity in Living Organisms</b> Chapter 3: Plant Kingdom	5	Worksheets will be provided
	Class Test	1	
<b>Project</b>	Topics will be given from ISC class XI syllabus and will be discussed in class.	1	
<b>June'24</b>	<b>UNIT 3: Plant Physiology</b> Chapter 14: Respiration in plants <b>UNIT 4: Human Physiology</b> Chapter 17: Breathing and exchange of gases	5 3	Worksheets will be provided
	Class Test	1	



	<b>UNIT 4: Human Physiology</b> Chapter 19: Excretory products and elimination	5	Worksheets will be provided.
	Class Test	1	
<b>July'24</b>	<b>UNIT 4: Human Physiology</b> Chapter 18: Body fluids and Circulation. Chapter 20: Locomotion and movement	6 6	Worksheets will be provided
	Class Test	1	
	<b>UNIT 2: Structural Organisation of Animals and Plants.</b> Chapter 6: Anatomy of flowering plants.	5	Worksheets will be provided
	Class test	1	
<b>August'24</b>	<b>Revisions</b>	15	Worksheets will be provided
<b>Practical</b>	Will be conducted as per ISC guidelines		
<b>*The no of periods mentioned here are approximate.</b>			

### SUBJECT : ENVIRONMENTAL SCIENCE

**Textbook Name : ISC ENVIRONMENTAL SCIENCE**  
**Author : AMITA GANGULY**  
**Publisher : MARINA**

MONTH	TOPIC	NO.OF PERIODS	WORKSHEETS/ACTIVITY
<b>April'24</b>	1.MODES OF EXISTENCE AND RESOURCE USE	2	Worksheet will be provided
	Class Test	1	
	2. ECOLOGY	4	Worksheet will be provided
	Class Test	1	
<b>May'24</b>	3. POLLUTION	6	
	Class Test	1	
	REVISION		Worksheet will be provided
<b>June'24</b>	4. POLLUTION	8	Worksheet will be provided
	Class Test	1	
	REVISION		Worksheet will be provided

<b>July'24</b>	<b>5.LEGAL REGIMES OF SUSTAINABLE DEVELOPMENT</b>	<b>6</b>	Worksheet will be provided
	Class test	1	
	REVISION		Worksheet will be provided
<b>August24</b>	<b>6. LEGAL REGIMES OF SUSTAINABLE DEVELOPMENT</b>	<b>8</b>	Worksheet will be provided
	REVISION		Worksheet will be provided

**SUBJECT: PHYSICAL AND HEALTH EDUCATION**

<b>MONTH</b>	<b>TOPIC</b>	<b>NO. OF PERIODS</b>	<b>ACTIVITY</b>
<b>April'24</b>	1. FITNESSGRAM	3	<ul style="list-style-type: none"> <li>• FREE HAND EXERCISES</li> </ul>
	Class Test	1	
	2. CRICKET	3	<ul style="list-style-type: none"> <li>• RULES RAGULATIONS</li> <li>• TECHNIQUES AND SKILLS</li> </ul>
	Class Test	1	
<b>May'24</b>	1. FITNESSGRAM	3	<ul style="list-style-type: none"> <li>• FREE HAND EXERCISES</li> </ul>
	Class Test	1	
	2. BADNINTON	3	<ul style="list-style-type: none"> <li>• RULES RAGULATIONS</li> <li>• TECHNIQUES AND SKILLS</li> </ul>
	Class Test	1	
<b>June'24</b>	1. MASS DRILL & FITNESSGRAM	3	<ul style="list-style-type: none"> <li>• CALLISTHENICS, AEROBICS &amp; YOGA.</li> </ul>
	Class Test	1	
	2. BASKET BALL	3	<ul style="list-style-type: none"> <li>• RULES RAGULATIONS</li> <li>• TECHNIQUES AND SKILLS</li> </ul>
	Class Test	1	
<b>July'24</b>	1. MASS DRILL & FITNESSGRAM	3	<ul style="list-style-type: none"> <li>• CALLISTHENICS, AEROBICS &amp; YOGA.</li> </ul>
	Class Test	1	
	2. FOOTBALL	3	<ul style="list-style-type: none"> <li>• RULES RAGULATIONS</li> <li>• TECHNIQUES AND SKILLS</li> </ul>
	Class Test	1	
<b>August'24</b>	1. MASS DRILL & FITNESSGRAM	3	<ul style="list-style-type: none"> <li>• CALLISTHENICS, AEROBICS &amp; YOGA.</li> </ul>
	Class Test	1	
	2. TABLE TENNIS, CHESS & CARROM	3	<ul style="list-style-type: none"> <li>• RULES RAGULATIONS</li> <li>• TECHNIQUES AND SKILLS</li> </ul>
	Class Test	1	

**SUBJECT : HINDI**

Textbook Name 1 : व्याकरण मंजूषा  
 Publisher : एवरग्रीन पब्लिकेशन  
 Text book Name 2 : गद्य संकलन  
 Publisher : एवरग्रीन पब्लिकेशन  
 Text book Name 3 : काव्य मंजूरी  
 Publisher : एवरग्रीन पब्लिकेशन  
 Text book Name 4 : सारा आकाश ( उपन्यास )  
 Author : राजेंद्र यादव

MONTH	TOPIC	NO. OF PERIODS	WORKSHEETS/ACTIVITY
April'24	1. पुत्र प्रेम (कहानी)	3	LPQ Worksheet will be provided
	-		
	-		
	-		
	-		
May'24	1. साखी (कविता)	5	LPQ Worksheet will be provided
	Class Test	1	
	2. अशुद्ध वाक्यों को शुद्ध करना	3	Worksheet will be provided
	3. मुहावरे और लोकोक्तियां	3	
	4. हिंदी परियोजना कार्य (Hindi Project)	2	प्रेमचंद्रजी का जीवन परिचय और रचनाओं का उल्लेख करते हुए, पुत्रप्रेम कहानी का सारांश और उद्देश्य लिखिए।
June'24	1. गौरी (कहानी)	5	LPQ worksheet will be provided
	Class Test	1	
	2. अपठित गद्यांश	2	Worksheet will be provided
	3. निबंध लेखन	2	
	4. सारा आकाश	3	Worksheet will be provided
July'24	1. शरणागत (कहानी)	5	LPQ worksheet will be provided
	. Class test	1	
	2. बाललीला (कविता)	5	LPQ worksheet will be provided
	Class test	1	
	सारा आकाश	4	
August'24	एक फूल की चाह (कविता)	5	LPQ worksheet will be provided
	Class test	1	
	2. निबंध लेखन	2	
	3. अपठित गद्यांश	2	Worksheet will be provided
	4. सारा आकाश	4	
	Revision		

**SUBJECT : BENGALI****Textbook Name** : ISC প্রবন্ধ ও গদ্য সংকলন, ISC কবিতা সংকলন, কোনি (মতি নন্দী)**Publisher** : power publishers

MONTH	TOPIC	NO. OF PERIODS	WORKSHEETS/ACTIVITY
April'24	1. ঠাকুরদা	4	Lpq will be provided
May'24	2. ওরা কাজ করে	2	Worksheet will be provided
	3. জোড়াসাঁকোর ধারে	2	Lpq will be provided
	4. পূব-পশ্চিম	3	LPQ will be provided
	Project explanation	1	
June'24	5. তাসের ঘর	4	Worksheet will be provided
	Class test	1	
	6. বনলতা সেন	2	LPQ will be provided
	Class test	1	
July'24	7. কোনি	7	LPQ will be provided
	Class test	1	
	8. বোধ পরীক্ষণ	2	Worksheet will be provided
	9. প্রবন্ধ	2	Activity
	10. বাগধারা	2	Activity
	11. শুদ্ধ বানান	2	Worksheet will be provided
August'24	Class test	1	
	12. বাক্য পরিবর্তন	2	Activity
	13. বিভিন্ন প্রকার শব্দ	2	Worksheet will be provided
	Class test	1	
	14. উক্তি পরিবর্তন	2	Worksheet will be provided
	15. বাচ্য পরিবর্তন	2	Worksheet will be provided
	Class test	1	
	• Revision	4	

**SUBJECT : SUPW****Textbook Name : No Book**

<b>MONTH</b>	<b>SUPW</b>	<b>NO.OF PERIODS</b>	<b>WORKSHEETS/ACTIVITY</b>
<b>April' 24 to</b>	<b>Project 1</b>	<b>6</b>	Making Flower vase ( with discarded materials)
<b>July ' 24</b>			