



# NOPANY HIGH

(I.C.S.E. & I.S.C Affiliated)

2-C, Nando Mullick Lane, Kolkata - 700006

## Syllabus

Academic Session: (2024-2025)

Class: XII (Sci) (Unit –I)

### SUBJECT : English Language (Sci and Hum)

**Textbook Name : Total English**

**Publisher : Morning Star**

| MONTH           | TOPIC                                 | NO. OF PERIODS | WORKSHEETS/ACTIVITY |
|-----------------|---------------------------------------|----------------|---------------------|
| <b>April'24</b> | <b>1.</b> Statement of Purpose        | 4              |                     |
|                 | <b>2.</b> Class Test                  | 1              |                     |
|                 | <b>3.</b> Test paper 2 (grammar)      | 1              | Worksheet           |
| <b>May'24</b>   | <b>1.</b> Film Review                 | 4              | Worksheet           |
| <b>June'24</b>  | <b>1.</b> Cultural review             | 3              | Worksheet           |
| <b>July'24</b>  | <b>1.</b> Test paper 3                | <b>1</b>       |                     |
|                 | <b>2. Test paper 4</b>                | <b>1</b>       |                     |
|                 | <b>3.</b> Test paper 5                | 1              |                     |
|                 | <b>4.</b> Test paper 6                | 1              |                     |
|                 | <b>5.</b> Class test                  | 1              | Worksheet           |
|                 | <b>6. Proposal writing (revision)</b> | <b>2</b>       |                     |
|                 | <b>7.</b> Article writing (revision)  | 2              |                     |
| <b>Aug'24</b>   | <b>1.</b> Report writing (revision)   | 2              | Worksheet           |
|                 | <b>2.</b> Speech Writing (revision)   | 2              |                     |
|                 | <b>3.</b> Test paper 7 and 8          | 2              |                     |
| <b>Oct'24</b>   | <b>1. Test paper 9</b>                | <b>1</b>       |                     |
|                 | <b>2.</b> Test paper 10               | 1              |                     |
|                 | <b>3.</b> Class test                  | 1              | Worksheet           |

|  |                                |   |   |
|--|--------------------------------|---|---|
|  | 4. Test paper 11               | 1 |   |
|  | 5. Test paper 12               | 1 |   |
| <b>Nov'24</b>  | 1. Test paper 13               | 1 |   |
|  | 2. Test paper 14               | 1 |   |
|  | 3. Test paper 15               | 1 |   |
|  | 4. Class test                  | 1 | <b>Worksheet will be provided</b>       |
|  | 5. Revision                    | 2 |   |
| <b>Project</b>   | An Autobiographical experience |   | <b>Submission date - 31st July 2024</b> |
| <b>Note: The above mentioned no. of periods may vary</b> |                                |   |   |

**SUBJECT : English Literature**

**Textbook Name :Macbeth  
Prism  
Rhapsody**

| <b>MONTH</b>    | <b>TOPIC</b>                     | <b>NO. OF PERIODS</b> | <b>WORKSHEETS/ACTIVITY</b> |
|-----------------|----------------------------------|-----------------------|----------------------------|
| <b>April'24</b> | 1.Macbeth Act 3 scenes 1,2 and 3 | <b>6</b>              |                            |
|                 | 2.Telephone Conversation         | 3                     | Worksheet will be provided |
|                 | Class Test                       | 1                     |                            |
| <b>May'24</b>   | 1.Macbeth Act 3 scenes 4,5 and 6 | <b>3</b>              |                            |
|                 | Class Test                       | 1                     |                            |
|                 | 2. Atithi                        | 5                     | Worksheet will be provided |
|                 | Class Test                       | 1                     |                            |
| <b>June'24</b>  | 1.Act 4 scene 1 and 2            | 2                     |                            |
|                 | 2. Tithonus                      | 3                     | Worksheet will be provided |
|                 | Class Test                       | 1                     |                            |
| <b>July'24</b>  | <b>1. Act 4 scene 3</b>          | <b>2</b>              | <b>Worksheet</b>           |
|                 | <b>2. The Cookie Lady</b>        | <b>3</b>              |                            |
|                 | <b>3.Beethoven</b>               | <b>3</b>              |                            |
|                 | <b>Class test</b>                | <b>1</b>              |                            |
| <b>August24</b> | 1. There will come soft rain     | 3                     | <b>Worksheet</b>           |
|                 | 2. Small towns and the river     | 3                     |                            |
|                 | Class test                       | 1                     |                            |

**SUBJECT : Mathematics**

**Textbook Name : ISC Mathematics (XII) (Volume I & II)**

**Author : M L AGGARWAL**

**Publisher : Avichal Publishing Company**

| MONTH    | TOPIC  | NO.OF PERIODS | WORKSHEETS /ACTIVITY       |
|----------|--|---------------|----------------------------|
| April'24 | <b>SECTION - A</b>   |               |                            |
|          | <p><b>1. Relations and Functions</b></p> <ul style="list-style-type: none"> <li>• <i>Relations as:</i> <ul style="list-style-type: none"> <li>➤ <i>Relation on a set A</i></li> <li>➤ <i>Identity relation, empty relation, universal relation.</i></li> <li>➤ <i>Types of Relations: reflexive, symmetric, transitive and equivalence 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>Types: one to one, many to one, into, onto.</i></li> <li>➤ <i>Real Valued function.</i></li> <li>➤ <i>Domain and range of a function.</i></li> <li>➤ <i>Conditions of invertibility.</i></li> <li>➤ <i>Invertible functions (algebraic functions only).</i></li> </ul> </li> </ul> | 5             | Worksheet will be provided |
|          | Class Test   | 1             |                            |
|          | <p><b>2. Inverse Trigonometric Functions</b></p> <p>Definition, domain, range, principal value branch.<br/>Graphs of inverse trigonometric functions.<br/>Elementary properties of inverse trigonometric functions.</p> <ul style="list-style-type: none"> <li>➤ <i>Principal values.</i></li> <li>➤ <i><math>\sin^{-1}x, \cos^{-1}x, \tan^{-1}x</math> etc. and their graphs.</i></li> <li>➤ <i>-Formulae for <math>2\sin^{-1}x, 2\cos^{-1}x, 2\tan^{-1}x, 3\tan^{-1}x</math> etc. and application of these formulae.</i></li> </ul>  | 5             | Worksheet will be provided |
|          | Class Test   | 1             |                            |
|          | <p><b>3. Matrices</b></p> <p>Concept, notation, order, equality, types of matrices,</p>  | 5             | Worksheet will be provided |

|        |  |   |                            |
|--------|--|---|----------------------------|
|        | <ul style="list-style-type: none"> <li>• zero and identity matrix, transpose of a matrix, symmetric and skew symmetric matrices.</li> <li>• Operation on matrices: Addition and multiplication and multiplication with a scalar. Simple properties of addition, multiplication and scalar multiplication.</li> </ul> <p>Non-commutativity of multiplication of matrices and existence of non-zero matrices whose product is the zero matrix (restrict to square matrices of order upto 3).</p> <ul style="list-style-type: none"> <li>• Concept of elementary row and column operations.</li> <li>• Invertible matrices and proof of the uniqueness of inverse, if it exists (here all matrices will have real entries).</li> </ul>  |   |                            |
| May'24 | <ul style="list-style-type: none"> <li>• <b>Determinants</b> <ul style="list-style-type: none"> <li>• Determinant of a square matrix (up to 3 x 3 matrices),</li> <li>• Properties of determinants, minors, co-factors and applications of determinants in finding the area of a triangle.</li> <li>• Adjoint and inverse of a square matrix. Consistency, inconsistency and number of solutions of system of linear equations by examples, solving system of linear equations in two or three variables (having unique solution) using inverse of a matrix.</li> <li>• <i>Types of matrices (<math>m \times n</math>; <math>m, n \leq 3</math>), order; Identity matrix, Diagonal matrix.</i></li> <li>• <i>Symmetric, Skew symmetric.</i></li> <li>• <i>Operation – addition, subtraction, 3. multiplication of a matrix with scalar, multiplication of two matrices (the compatibility).</i> <ul style="list-style-type: none"> <li>• <i>Singular and non-singular matrices.</i></li> <li>• <i>Existence of two non-zero matrices whose product is a zero matrix.</i></li> <li>• <i>Inverse (<math>2 \times 2</math>, <math>3 \times 3</math>)</i></li> <li>• <i>Martin's Rule (i.e. using matrices)</i></li> <li>• <i>Problems based on above.</i></li> </ul> </li> </ul> </li> </ul> <p><b>NOTE 1:</b> The conditions for consistency of equations in two and three variables, using matrices, are to be covered.</p> | 8 | Worksheet will be provided |

|         |  |    |                            |
|---------|--|----|----------------------------|
|         | <p><b>Determinants -</b></p> <p>Order.</p> <ul style="list-style-type: none"> <li>➤ Minors.</li> <li>➤ Cofactors.</li> <li>➤ Expansion.</li> <li>➤ Applications of determinants in finding the area of triangle and collinearity. <ul style="list-style-type: none"> <li>• Properties of determinants. Problems based on properties of determinants.</li> </ul> </li> </ul>  |    |                            |
|         | Class Test   | 1  |                            |
| June'24 | <p><b>5. Continuity &amp; Differentiability</b></p> <p>Derivatives of logarithmic and exponential functions. Logarithmic differentiation, derivative of functions expressed in parametric forms. Second order derivatives. Rolle's and Lagrange's Mean Value Theorems (without proof) and their geometric interpretation.</p> <ul style="list-style-type: none"> <li>• <b>Continuity</b> <ul style="list-style-type: none"> <li>➤ Continuity of a function at a point <math>x = a</math>.</li> <li>➤ Continuity of a function in an interval.</li> <li>➤ Algebra of continuous function.</li> <li>➤ Removable discontinuity.</li> </ul> </li> <li>• <b>Differentiation</b> <ul style="list-style-type: none"> <li>➤ Concept of continuity and differentiability of <math> x </math>, <math>[x]</math>, etc.</li> <li>➤ Derivatives of trigonometric functions.</li> <li>➤ Derivatives of exponential functions.</li> <li>➤ Derivatives of logarithmic functions.</li> <li>➤ Derivatives of inverse trigonometric functions - differentiation by means of substitution.</li> <li>➤ Derivatives of implicit functions and chain rule.</li> <li>➤ <math>e</math> for composite functions.</li> <li>➤ Derivatives of Parametric functions.</li> <li>➤ Differentiation of a function with respect to another function e.g. differentiation of <math>\sin x^3</math> with respect to <math>x^3</math>.</li> <li>➤ Logarithmic Differentiation - Finding <math>dy/dx</math> when <math>y = x^{x^x}</math>.</li> <li>➤ Successive differentiation up to 2<sup>nd</sup> order.</li> </ul> </li> </ul> | 15 | Worksheet will be provided |

|                  |   |    |                            |
|------------------|---|----|----------------------------|
|                  | <i><b>NOTE :</b> Derivatives of composite functions using chain rule.</i>   |    |                            |
|                  | Class Test  | 1  |                            |
| <b>July'24</b>   | <p><b>6. Integrals</b></p> <p><i>Indefinite integral</i></p> <ul style="list-style-type: none"> <li>➤ <i>Integration as the inverse of differentiation.</i></li> <li>➤ <i>Anti-derivatives of polynomials and functions <math>(ax + b)^n</math>, <math>\sin x</math>, <math>\cos x</math>, <math>\sec^2 x</math>, <math>\operatorname{cosec}^2 x</math> etc .</i></li> <li>➤ <i>Integrals of the type <math>\sin^2 x</math>, <math>\sin^3 x</math>, <math>\sin^4 x</math>, <math>\cos^2 x</math>, <math>\cos^3 x</math>, <math>\cos^4 x</math>.</i></li> <li>➤ <i>Integration of <math>1/x</math>, <math>e^x</math>.</i></li> <li>➤ <i>Integration by substitution.</i></li> <li>➤ <i>Integrals of the type <math>f'(x)[f(x)]^n</math></i></li> <li>➤ <i>Integration of <math>\tan x</math>, <math>\cot x</math>, <math>\sec x</math>, <math>\operatorname{cosec} x</math>.</i></li> <li>➤ <i>Integration by parts.</i></li> <li>➤ <i>Integration using partial fractions.</i></li> </ul>   | 15 | Worksheet will be provided |
|                  | Class Test  | 1  |                            |
| <b>August'24</b> | <p style="text-align: center;"><b>SECTION B</b></p> <p><b>Vectors</b></p> <ul style="list-style-type: none"> <li>➤ <i>As directed line segments.</i></li> <li>➤ <i>Magnitude and direction of a vector.</i></li> <li>➤ <i>Types: equal vectors, unit vectors, zero vector.</i></li> <li>➤ <i>Position vector.</i></li> <li>➤ <i>Components of a vector.</i></li> <li>➤ <i>Vectors in two and three dimensions.</i></li> <li>➤ <i><math>\hat{i}</math>, <math>\hat{j}</math>, <math>\hat{k}</math> as unit vectors along the x, y and the z axes; expressing a vector in terms of the unit vectors.</i></li> <li>➤ <i>Operations: Sum and Difference of vectors; scalar multiplication of a vector.</i></li> <li>➤ <i>Section formula.</i></li> <li>➤ <i>Triangle inequalities.</i></li> <li>➤ <i>Scalar (dot) product of vectors and its geometrical significance.</i></li> <li>➤ <i>Cross product - its properties - area of a triangle, area of parallelogram, collinear vectors.</i></li> <li>➤ <i>Scalar triple product - volume of a parallelepiped, co-planarity.</i></li> </ul> <p><b>NOTE: Proofs of geometrical theorems by using Vector algebra are excluded.</b></p> | 10 | Worksheet will be provided |
|                  | Class Test  | 1  |                            |

|                  |   |   |                            |
|------------------|---|---|----------------------------|
| <b>August'24</b> | <b>SECTION C</b>  | 8 | Worksheet will be provided |
|                  | <b>Application of Calculus</b><br>Application of Calculus in Commerce and Economics in the following: <ul style="list-style-type: none"> <li>➤ Cost function,</li> <li>➤ average cost,</li> <li>➤ marginal cost and its interpretation</li> <li>➤ demand function,</li> <li>➤ revenue function,</li> <li>➤ marginal revenue function and its interpretation,</li> <li>➤ Profit function and breakeven point.</li> <li>➤ Rough sketching of the following curves: AR, MR, R, C, AC, MC and their mathematical interpretation using the concept of maxima &amp; minima and increase- decreasing functions .</li> </ul> <b>NOTE: Application involving differentiation, integration, increasing and decreasing function and maxima and minima to be covered.</b> |   |                            |
|                  | Class Test  | 1 |                            |

### SUBJECT :Computer Science

**Textbook Name : Understanding ISC Computer Science (Java with BlueJ) Class XII**

**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 1:</b><br>Boolean Algebra                                | 10            | <b>Worksheet</b>    |
| <b>May'24</b>   | <b>Chapter 1:</b><br>Boolean Algebra(Cont.)                         | 12            | <b>Worksheet</b>    |
|                 | <b>Class Test</b> (Theory)  | 1             |                     |
| <b>June'24</b>  | <b>Chapter 2:</b><br>Computer Hardware                              | 9             | <b>Worksheet</b>    |
| <b>July'24</b>  | <b>Chapter 2:</b><br>Computer Hardware(Cont.)                       | 15            |                     |
|                 | <b>Class Test</b> (Theory)  | 1             |                     |
|                 | <b>Chapter 3:</b><br>Implementation of Algorithms to Solve Problems | 3             |                     |
|                 | <b>Chapter 4:</b><br>Objects and classes                            | 1             | <b>Worksheet</b>    |

|                |  |   |   |
|----------------|--|---|---|
|                | <b>Chapter 5:</b><br>Data Types and<br>Variables | 1 | <b>Lab Activity</b>   |
|                | <b>Chapter 6:</b><br>Statements and Scope        | 2 |   |
| <b>Aug'24</b>  | <b>Chapter 7:</b><br>String Manipuations         | 7 | <b>Lab Activity</b>   |
|                | <b>Chapter 7:</b><br>Arrays                      | 7 | <b>Lab Activity</b>   |
|                | <b>Chapter 8:</b><br>Methods                     | 7 | <b>Lab Activity</b>   |
| <b>Sept'24</b> | Revision   | 5 |   |
| <b>Project</b> |  |   | <b>Total 15 programs to be done as a part of Unit I project.<br/>List of programs will be provided later.</b> |

**SUBJECT : ENVIRONMENTAL SCIENCE**

**Textbook Name : ISC ENVIRONMENTAL SCIENCE**

**Author : AMITA GANGULY**

**Publisher : MARINA**

| <b>MONTH</b>    | <b>TOPIC</b>                                    | <b>NO.OF PERIODS</b> | <b>WORKSHEETS/ACTIVITY</b> |
|-----------------|---|----------------------|----------------------------|
| <b>April'24</b> | 1.HUMAN BEINGS                                  | 4                    | Worksheet will be provided |
|                 | Class Test                                      | 1                    |                            |
|                 | 2. POPULATION ECOLOGY                           | 6                    | Worksheet will be provided |
|                 | Class Test                                      | 1                    |                            |
| <b>May'24</b>   | 3. CONSERVATION ECOLOGY                         | 6                    | Worksheet will be provided |
|                 | Class Test                                      | 1                    |                            |
| <b>June'24</b>  | 4. CONSERVATION ECOLOGY                         | 8                    | Worksheet will be provided |
|                 | Class Test                                      | 1                    |                            |
|                 |   |                      | Worksheet will be provided |
| <b>July'24</b>  | 5.POLLUTION MONITORING                          | 6                    | Worksheet will be provided |
|                 | Class test                                      | 1                    |                            |
| <b>August24</b> | 6. THE THIRD WORLD DEVELOPMENT                  | 6                    | Worksheet will be provided |
|                 | Class test                                      | 1                    |                            |
| <b>Sept'24</b>  | REVISION  |                      | Worksheet will be provided |
| <b>Oct'24</b>   | 7. ENVIRONMENTAL AND NATURAL RESOURCE ECONOMICS | 8                    | Worksheet will be provided |
|                 | Class test                                      | 1                    |                            |



|               |  |   |                            |
|---------------|--|---|----------------------------|
| <b>Nov'24</b> | 8. INTERNATIONAL RELATIONS AND THE ENVIRONMENT | 8 | Worksheet will be provided |
|               | Class test                                     | 1 |                            |
|               | REVISION                                       |   |                            |
| <b>Dec'24</b> | PRE-BOARD                                      |   |                            |

| <b>SUBJECT: PHYSICAL AND HEALTH EDUCATION</b> |                                 |                       |  |
|---|---------------------------------|-----------------------|--|
| <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 2nd language**

**Textbook Name** : 1. गद्य संकलन 2. काव्य मंजरी  
3. सारा आकाश ( उपन्यास ) 4. व्याकरण मंजूषा

**Author** : ISC

**Publisher** : evergreen publications 4. Inter university press

| MONTH     | TOPIC                                    | NO. OF PERIODS | WORKSHEETS/ACTIVITY  |
|-----------|--|----------------|----------------------|
| April'24  | 1. दासी                                  | 5              | LPQ will be Provided |
|           | Class Test                               | 1              |                      |
|           | 2. नदी के द्वीप                          | 5              | LPQ will be provided |
|           | Class Test                               | 1              |                      |
|           | 3. सारा आकाश पूर्वार्द्ध<br>भाग - 1 to 3 | 4              | LPQ will be Provided |
|           | Class Test                               | 1              |                      |
|           | 4. मुहावरे                               | 2              |                      |
|           | Class Test                               | 1              |                      |
| May'24    | 1. क्या निराश हुआ जाए ?                  | 5              | LPQ will be Provided |
|           | Class Test                               | 1              |                      |
|           | 2. सारा आकाश भाग - 4 to 6                | 4              | LPQ will be provided |
|           | Class Test                               | 1              |                      |
|           | 3. अशुद्ध वाक्यों को शुद्ध करें          | 2              | LPQ will be Provided |
|           | Class Test                               | 1              |                      |
| June'24   | 1. जाग तुझको दूर जाना है                 | 5              | LPQ will be Provided |
|           | Class Test                               | 1              |                      |
|           | 2. सारा आकाश भाग - 7 to 10               | 4              | LPQ will be provided |
|           | Class Test                               | 1              |                      |
|           | 3. अपठित गद्यांश                         | 1              | LPQ will be Provided |
|           | Class Test                               | 1              |                      |
| July'24   | 1. भक्तिन                                | 5              | LPQ will be Provided |
|           | Class Test                               | 1              |                      |
|           | 2. उद्यमी नर                             | 5              | LPQ will be Provided |
|           | Class Test                               | 1              |                      |
|           | 3. सारा आकाश उत्तरार्द्ध<br>भाग - 1 to 3 | 4              | LPQ will be Provided |
|           | Class Test                               | 1              |                      |
|           | 4. निबंध                                 | 2              |                      |
|           | Class Test                               | 1              |                      |
| August'24 | 1. संस्कृति क्या है                      | 5              | LPQ will be Provided |
|           | Class Test                               | 1              |                      |
|           | 2. बादल को घिरते देखा है                 | 5              | LPQ will be Provided |
|           | Class Test                               | 1              |                      |
|           | 3. सारा आकाश भाग - 4 to 6                | 4              | LPQ will be Provided |
|           | Class Test                               | 1              |                      |
|           | 4. अपठित गद्यांश                         | 1              |                      |
|           | 5. अशुद्ध शब्दों को शुद्ध करें           | 2              | LPQ will be Provided |
|           | Class Test                               | 1              |                      |
|           | 6. मुहावरे                               | 2              | LPQ will be Provided |
|           | Class Test                               | 1              |                      |
|           | Revision                                 |                |                      |

**SUBJECT : Bengali**

Textbook Name : i) I.S.C প্রবন্ধ ও গদ্য সংকলন, ii) I.S.C কবিতা সংকলন

Author : \_\_\_\_\_

Publisher : i) Power Publishers, ii) Cambridge India Educational Publishers

| MONTH     | TOPIC                                | NO. OF PERIODS | WORKSHEETS/ACTIVITY   |
|-----------|--------------------------------------|----------------|-----------------------|
| April'24  | 1. রাস্তা কারো একার নয়              | 4              | কবিতা পাঠ, notes      |
|           | 2. Class Test                        | 1              | Copy                  |
|           | 3. বাক্য পরিবর্তন                    | 2              | Worksheet             |
|           | 4. কোনি (9th & 10 th chapter)        | 2              | Explanation           |
|           | 5. Class test                        | 1              | Copy                  |
|           | 6. শব্দদ্বৈত                         | 2              | Board work            |
| May'24    | 1. একটি তুলসীগাছের কাহিনী            | 4-5            | LPQ                   |
|           | 2. Class Test                        | 1              | Worksheet             |
|           | 3. Project explanation               | 1              | Board work            |
| June'24   | 1. যদি নির্বাসন দাও                  | 4              | কবিতা পাঠ, notes      |
|           | 2. বাগ ধারা                          | 2              | worksheet             |
|           | 3. Class Test                        | 1              | worksheet             |
| July'24   | 1. লছমনের মা                         | 4-5            | LPQ, আলোচনা           |
|           | 2. Class Test                        | 1              | Worksheet             |
|           | 3. বাচ্য পরিবর্তন & উক্তি পরিবর্তন   | 2              | Board work, worksheet |
|           | 4. বোধ পরীক্ষণ                       | 1              | Worksheet             |
|           | 5. রচনা                              | 2              | group discussion      |
|           | 6. কোনি(11th chapter & 12th chapter) | 2              | LPQ                   |
|           | 7. Class test                        | 1              | Worksheet             |
| August'24 | 1. কোনি (13th & 14th chapter)        | 2              | Written work          |
|           | 2. না পাহারার পরীক্ষা                | 2              | Reading, LPQ          |
|           | 3. স্বাধীনতা তুমি                    | 4              | কবিতা পাঠ, worksheet  |
|           | 4. Class test                        | 1              | Worksheet             |
|           | 5. আদাব                              | 5              | Reading, LPQ          |
|           | 6. Class test                        | 1              | Worksheet             |

**SUBJECT : PHYSICS****Text Book : Nootan ISC Physics for Class-XII****Publisher : Nageen Prakashan****Text Book for Physics Practical: ISC Practical Physics (Vol-I) for Class XII**

| MONTH     | TOPIC  | NO.OF PERIODS              | WORKSHEETS/ACTIVITY        |
|-----------|--|----------------------------|----------------------------|
| April'24  | ❖ <u>ELECTROSTATICS</u><br>1.Electric charges and field<br>2.Gauss' Theorem<br>3.Electric potential<br>4.Capacitors and Dielectrics  | 5<br>4<br>5<br>6           | Worksheet will be provided |
|           | Class Test   | 1                          |                            |
| May'24    | ❖ <u>CURRENT ELECTRICITY</u><br>5. Electric Resistance and Ohm's Law<br>6.DC Circuits and Measurements<br><br>❖ <u>MAGNETIC EFFECTS OF CURRENT AND MAGNETISM</u><br>7.Moving Charges and Magnetic Field  | 5<br>4<br><br>5            | Worksheet will be provided |
|           | Class Test   | 1                          |                            |
| June'24   | 8.Torque on a Current-Loop : Moving-Coil Galvanoment.<br>9.Magnetic field and Earth's Magnetism<br>10.Magnetic Classification of Substances  | 4<br>5<br>5                | Worksheet will be provided |
|           | Class Test   | 1                          |                            |
| July'24   | ❖ <u>ELECTROMAGNETIC INDUCTION AND ALTERNATING CURRENTS</u><br>11.Electromagnetic Induction<br>12.Alternating Current<br>13.Electromagnetic Waves  | 7<br>8<br>5                | Worksheet will be provided |
|           | Class Test   | 1                          |                            |
| August'24 | ❖ <u>OPTICS</u><br>14.Reflection of Light : Spherical Mirrors<br>15.Refraction of Light at a Plane Interface : Total Internal Reflection : Optical Fibre<br>16.Refraction of Light at Spherical Surfaces : Lenses<br>17.Refraction and Dispersion of Light through a Prism<br>18.Optical Instruments<br>19.Wave nature of Light : Huygens' Principle | 3<br>3<br>3<br>3<br>3<br>2 | Worksheet will be provided |

|  |   |   |                            |
|--|---|---|----------------------------|
|  | 20.Interference of Light<br>21.Diffraction of Light   | 3<br>3                                      |                            |
|  | Class Test  | 1   |                            |
| Sept'24  | Revision  | 6   |                            |
| Oct'24   | ❖ Dual Nature Of Radiation<br>Photoelectric Effect<br><br>23.Photoelectric Effect<br>24.Matter Waves<br><br>❖ Atoms And Nuclei<br>26.Atom,origin of Spectra: Bohr's Theory<br>27.Nuclear Structure<br>28.Radioactivity<br>29.Mass Energy Equivalence<br>30.Nuclear Fission and Nuclear Fusion | <br><br>2<br>2<br><br>2<br>2<br>2<br>2<br>2 | Worksheet will be provided |
| Nov'24   | ❖ Electronics Device<br>31.Semiconductor Electronics<br>32.Junction Diode<br><br>Revision   | <br>4<br>4<br><br>8                         | Worksheet will be provided |
| Practical  | As per ISC guidelines.  |   |                            |
| Project  | Will be discussed in class.   |   |                            |
| **( The above mentioned periods are approximate) |   |   |                            |

### SUBJECT : Chemistry

**Textbook Name : ISC CHEMISTRY**

**Author : K.L.CHUGH**

**Publisher : KALYANI PUBLISHERS**

| MONTH    | TOPIC                          | NO.OF PERIODS | WORKSHEETS/ACTIVITY        |
|----------|--------------------------------|---------------|----------------------------|
| April'24 | 1. Haloalkane and Haloarenes   | 10            | Worksheet will be provided |
|          | Class Test                     | 1             |                            |
|          | 2. Alcohol ,Phenols and Ethers | 10            | Worksheet will be provided |
|          | Class Test                     | 1             |                            |

|                 |  |          |                                  |
|-----------------|--|----------|----------------------------------|
| <b>May'24</b>   | 3. Aldehydes, Ketones and Carboxylic Acids | 10       | Worksheet will be provided       |
|                 | Class Test                                 | 1        | Worksheet will be provided       |
|                 | <b>Project</b>                             |          | Topic Will be discussed in Class |
| <b>June'24</b>  | 4. Solutions                               | 10       | Worksheet will be provided       |
|                 | Class Test                                 | 1        |                                  |
| <b>July'24</b>  | 5. Coordination Compounds                  | <b>6</b> | Worksheet will be provided       |
|                 | Class Test                                 | 1        |                                  |
|                 | 6. Electrochemistry                        | 10       | Worksheet will be provided       |
|                 | Class Test                                 | 1        |                                  |
| <b>August24</b> | 7. d and f block Elements                  | 6        | Worksheet will be provided       |
|                 | Class Test                                 | 1        |                                  |

**Note**

- **The above mentioned periods are approximate.**
- **The last week before exam will be a revision week.**

**Unit II**

|                   |  |          |                            |
|-------------------|--|----------|----------------------------|
| <b>October24</b>  | 8. Organic Compounds Containing Nitrogen | <b>9</b> | Worksheet will be provided |
|                   | Class Test                               | <b>1</b> |                            |
|                   | 9. Chemical Kinetics                     | <b>5</b> | Worksheet will be provided |
|                   | Class Test                               | <b>1</b> |                            |
| <b>November24</b> | 10. Chemical Kinetics                    | <b>5</b> |                            |
|                   | <b>Class Test</b>                        | <b>1</b> |                            |
|                   | 4. Biomolecules                          | <b>5</b> | Worksheet will be provided |
|                   | Class Test                               | <b>1</b> |                            |

**SUBJECT : BIOLOGY**

**Text Book : ISC Srijan Biology XII**

**Publisher : Srijan Publishers Private Limited**

**Author : Veer Bala Rastogi**

| <b>MONTH</b> | <b>TOPIC</b> | <b>NO.OF PERIODS</b> | <b>WORKSHEETS/ACTIVITY</b> |
|--------------|--------------|----------------------|----------------------------|
|--------------|--------------|----------------------|----------------------------|

|                 |  |             |                             |
|-----------------|--|-------------|-----------------------------|
| <b>April'24</b> | <b>UNIT 1: Reproduction</b><br>Chapter 2: Sexual<br>Reproduction in Flowering<br>plants<br>Chapter 3: Human<br>Reproduction<br>Chapter 4: Reproductive<br>Health     | 3<br>4<br>3 | Worksheets will be provided |
|                 | Class Test   | 1           |                             |
|                 | <b>UNIT 3: Biology and Human<br/>Welfare</b><br>Chapter 8 Human Health and<br>Diseases   | 2           | Worksheets will be provided |
| <b>May'24</b>   | <b>UNIT 3: Biology and Human<br/>Welfare</b><br>Chapter 8: Human Health and<br>Diseases<br>Chapter 10: Microbes in<br>Human Welfare                                  | 3<br>3      | Worksheets will be provided |
|                 | Class Test   | 1           |                             |
| <b>Project</b>  | Topics will be given from ISC<br>class XI syllabus and will be<br>discussed in class.  | 1           |                             |
| <b>June'24</b>  | <b>UNIT 2: Genetics And<br/>Evolution</b><br>Chapter 5: Principles of<br>Inheritance.<br>Chapter 6: Molecular Basis of<br>Inheritance.                               | 5<br>6      | Worksheets will be provided |
|                 | Class Test   | 1           |                             |
|                 | <b>UNIT 4: Biotechnology and its<br/>Applications</b><br>Chapter 11: Biotechnology-<br>Principles and Processes  | 2           |                             |
| <b>July'24</b>  | <b>UNIT 4: Biotechnology and its<br/>Applications</b><br>Chapter 11: Biotechnology-<br>Principles and Processes<br>Chapter 12: Biotechnology<br>and its Applications | 3<br>4      | Worksheets will be provided |
|                 | Class Test   | 1           |                             |

|   |  |             |                             |
|---|--|-------------|-----------------------------|
|   | <b>UNIT 5: Ecology and Environment</b><br>Chapter 13: Organisms and Population<br>Chapter 14: Ecosystems.<br>Chapter 15: Biodiversity and Conservation | 4<br>3<br>3 | 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>UNIT II</b>   |             |                             |
|   |  |             |                             |
| <b>October 24</b>   | Chapter 7: Evolution.  | 5           | Worksheet will be provided  |
|   | Class test   | 1           |                             |
| <b>November24</b>   | <b>Revision</b>  | 10          | Worksheet will be provided  |
| <b>*THE NO OF PERIODS MENTIONED HERE ARE APPROXIMATE.</b> |  |             |                             |

**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>             | <b>Making Jute Mat</b>     |
| <b>July ' 24</b>    |                  |                      |                            |