



# NOPANY HIGH

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

## Syllabus

Academic Session: 2023 – 2024

Class: IX (Unit –I & II)

<b>ENGLISH LANGUAGE</b>	
<b>Text Book : Total English</b> <b>Publisher : Morning Star</b>	
<b>Unit-I</b>	
	Test paper 2,3,4,5,6,7,8
<b>PROJECT</b>	<b>Will be discussed in class</b>
<b>Unit-II</b>	
<b>Syllabus of Unit I is included in Unit II</b>	
<b>Text Book :</b> <b>Publisher :</b>	<b>Total English</b> <b>Morning Star</b>
	Test paper 9,10, 11, 12, 13
<b>PROJECT</b>	<b>Will be discussed in class</b>

<b>ENGLISH LITERATURE</b>	
<b>Text Book :Treasure Chest , JULIUS CAESAR.</b> <b>Publisher:</b> Evergreen Publishers ,Oxford.	
<b>Unit-I</b>	
<b>PROSE</b>	
Chapter : 1	BonkuBabu’s Friend
Chapter : 2	Oliver Asks for More
Chapter: 3	Model Millionaire
<b>POETRY</b>	
Chapter: 1	A Work of Artifice
Chapter: 2	The Night Mail
Chapter : 3	SkimbleShanks
<b>JULIUS CAESER</b>	Act 1
<b>PROJECT :</b>	To be discussed in the class.

## Unit-II

All chapters of Unit-I are included in the syllabus.

### PROSE

Chapter :4

Homecoming

Chapter :5

The Boy Who Broke the Bank

### POETRY

Chapter :4

I Remember, I Remember

Chapter : 5

A Doctor's Journal Entry

### JULIUS

Act 2

### CAESAR

### PROJECT :

To be discussed in the class.

## Hindi Language ( हिन्दी व्याकरण )

Text Book I - सरस हिन्दी व्याकरण

Publisher: एवरग्रीन पब्लिकेशन

निबंध -	i. पर्यावरण प्रदूषण ii. किसी आंखों देखी घटना का वर्णन iii. समाचार पत्रों की जीवन में उपयोगिता
पत्र लेखन -	औपचारिक तथा अनौपचारिक पत्र
अपठित गद्यांश -	कोई दो
व्याकरण --	i. भाववाचक संज्ञा ii. विशेषण ii. लिंग, iii. वचन iv. कारक v. विलोम शब्द vi. पर्यायवाची शब्द vi. मुहावरे vii. अनेक शब्दों के लिए एक शब्द

## Hindi Literature ( हिन्दी साहित्य )

Text Book I : साहित्य सागर ( गद्य तथा पद्य भाग )

Publisher: एवरग्रीन पब्लिकेशन

गद्य भाग	पद्य भाग
बात अठन्नी की	साखी
काकी	गिरिधर की कुंडलियां
महायज्ञ का पुरस्कार	स्वर्ग बना सकते हैं

**Project-**

काकी कहानी का सारांश लिखते हुए बताइए कि ' भ्रष्टाचार ' की समस्या से समाज को किस प्रकार मुक्त किया जा सकता है। अपने विचार देते हुए एक परियोजना कार्य बनाइए।

Class: IX (Unit –II)

**Hindi Language ( हिन्दी व्याकरण )**

निबंध --	i. आपकी प्रिय पुस्तक ii. आपके विद्यालय का वार्षिक उत्सव iii. जैसी करनी वैसी भरनी ( मौलिक कहानी )
पत्र लेखन --	औपचारिक तथा अनौपचारिक पत्र
अपठित गद्यांश --	कोई दो
व्याकरण --	i. भाववाचक संज्ञा ii. विशेषण iii. अशुद्ध शब्दों को शुद्ध करना iii. तत्सम - तद्भव iv. काल v. लिंग, वचन, कारक vi. विलोम शब्द, पर्यायवाची शब्द vi. मुहावरे

**Hindi Literature ( हिन्दी साहित्य )**

गद्य भाग	पद्य भाग
नेताजी का चश्मा	वह जन्मभूमि मेरी
अपना - अपना भाग्य	मेघ आए
बड़े घर की बेटी	सूर के पद

**Project-**

सूरदास का जीवन परिचय लिखते हुए उनकी भक्ति - भावना पर प्रकाश डालते हुए एक परियोजना कार्य बनाइए।

**Bengali 2<sup>nd</sup> language**

Class: IX (Unit –I)

**Bengali Language ( বাংলা ভাষা)**Text Book - : **ভাষা মুকুল** Publisher: ধর বুক এজেন্সি

প্রবন্ধ রচনা (নমুনা)	i. আত্মকথা বিষয়ক
<b>অথবা</b>	ii. অভিজ্ঞতা বিবরণ
চিত্র পর্যবেক্ষণ	iii. পরিবেশ বিষয়ক
	iv. বিজ্ঞান বিষয়ক
	v. চিত্র পর্যবেক্ষণ
পত্র রচনা	ব্যক্তিগত ও বৈষয়িক পত্র
বোধ পরীক্ষণ	
ব্যাকরণ	সাধু ও চলিত ভাষা, বাক্যনির্মাণের শর্ত ও বাক্যের শ্রেণীবিভাগ, একই শব্দের ভিন্নার্থে প্রয়োগ, এক কথায় প্রকাশ, সমোচ্চারিত ভিন্নার্থক শব্দ, সমার্থক শব্দ, বাগধারা ও প্রবাদ প্রবচন

**Bengali Literature ( বাংলা সাহিত্য)**

Text Book : সংকলিত Publisher : Power Publisher

গদ্য		পদ্য	
পাঠ- ১	গিরি	পাঠ- ১	বঙ্গভূমির প্রতি
পাঠ- ২	লালু	পাঠ- ২	সভ্যতার প্রতি
পাঠ- ৩	বামা	পাঠ- ৩	কুলি - মজুর

## Class: IX (Unit –II)

**Bengali Language ( বাংলা ভাষা)**Text Book - : **ভাষা মুকুল** Publisher: ধর বুক এজেন্সি

প্রবন্ধ রচনা (নমুনা)	i. আত্মকথা বিষয়ক
<b>অথবা</b>	ii. অভিজ্ঞতা বিবরণ
চিত্র পর্যবেক্ষণ	iii. পরিবেশ বিষয়ক
	iv. বিজ্ঞান বিষয়ক
	v. চিত্র পর্যবেক্ষণ
পত্র রচনা	ব্যক্তিগত ও বৈষয়িক পত্র
বোধ পরীক্ষণ	
ব্যাকরণ	বাচ্য, বিরামচিহ্ন, একই শব্দের ভিন্নার্থে প্রয়োগ, এক কথায় প্রকাশ, সমোচ্চারিত ভিন্নার্থক শব্দ, সমার্থক শব্দ, বাগধারা ও প্রবাদ প্রবচন

**Bengali Literature ( বাংলা সাহিত্য)**

Text Book : সংকলিত Publisher : Power Publisher

গদ্য		পদ্য	
পাঠ- ৪	ক্যানভাসার	পাঠ- ৪	আবার আসিব ফিরে
পাঠ- ৫	নাম	পাঠ- ৫	সিঁড়ি
পাঠ- ৬	অসহযোগী	পাঠ- ৬	রবীন্দ্রনাথের প্রতি

<b>MATHEMATICS</b>	
<b>Text Book: <i>Concise Mathematics : (class X)</i></b>	
<b>Author : R. K. Bansal</b>	
<b>Publisher: Selina publishers Pvt. Ltd.</b>	
<b>Unit-I</b>	
<b>Pure Mathematics</b>	
Chapter : 1	Rational and Irrational Numbers : Ex-1A,1B,1C and 1D
<b>Commercial Mathematics</b>	
Chapter : 2	Compound Interest ( without using Formula):Ex -2A, 2B, 2C and 2D
<b>Algebra</b>	
Chapter : 4	Expansions :Ex-4A,4B,4C,4D and 4E
Chapter : 5	Factorisation : Ex-5A,5B,5C,5D and 5E
Chapter : 6	Simultaneous (linear ) Equations(Including Problems) Ex-6A,6B,6C, 6D, 6E, 6F and 6G
<b>Geometry</b>	
Chapter : 9	Triangles ( Congruency in Triangles):Ex-9A and 9B
Chapter ; 10	Isosceles Triangles : Ex - 10A and 10B
Chapter : 11	Inequalities : Ex - 11
Chapter : 12	Mid-point Theorem and Its Converse (Including Intercept Theorem) Ex-12A and 12B
Chapter : 13	Pythagoras Theorem : Ex-13A and 13B
<b>Statistics and Graph Work</b>	
Chapter : 18	Statistics: Ex-18A and 18B
<b>Mensuration</b>	
Chapter : 20	Area and Perimeter of Plane Figures : :Ex-20A,20B,20C and 20D
<b>Trigonometry</b>	
Chapter: 22	Trigonometrical Ratios :Ex-22A and 22B
Chapter : 23	Trigonometrical Ratios of Standard Angles :Ex-23A, 23B and 23C
<b>Co- Ordinate</b>	
Chapter: 26	Co-ordinate Geometry.:Ex-26A, 26B and 26C
Chapter : 27	Graphical Solution: Ex-27A and 27B.
<b>PROJECT</b>	Home Budget
<b>Unit-II</b>	
<b>All chapters of Unit-I are included in the syllabus.</b>	
<b>Commercial Mathematics</b>	
Chapter : 3	Compound Interest( Using Formula): Ex- 3A, 3B,3C, 3D and3E
<b>Algebra</b>	
Chapter : 7	Indices ( Exponents) : Ex - 7A, 7B and 7C

Chapter : 8	Logarithms : Ex- 8A,8B, 8C and 8D
<b>Geometry</b>	
Chapter :15	Construction of Polygons ( Using Ruler and Compass Only) : Ex- 15
Chapter :16	Area Theorem : Ex- 16A,16B and 16C
Chapter : 17	Circle : Ex – 17A, 17B,17C and 17D
<b>Statistics and Graph Work</b>	
Chapter : 19	Mean and Median : Ex-19A,19B and 19C
<b>Mensuration</b>	
Chapter : 21	Solids : Ex-21A, 21B and 21C
<b>Trigonometry</b>	
Chapter : 24	Solution of Right Triangles ; Ex – 24
Chapter : 25	Complementary Angles : Ex- 25
<b>Co-Ordinate Geometry</b>	
Chapter : 28	Distance Formula : Ex- 28
<b>Project</b>	Will be discussed in the class.

<b>PHYSICS</b>	
<b>Text Book : Concise Physics ( Class IX )</b>	
<b>Publisher : Selina Publication</b>	
<b>Unit-I</b>	
	<b>THEORY</b>
Chapter : 1	Measurements and Experimentation
Chapter : 2	Motion in One Dimension
Chapter : 3	Laws of Motion
Chapter : 4	Pressure in Fluids and Atmospheric Pressure
Chapter : 5	Upthrust in Fluids, Archimedes' principle and Floatation
Chapter : 6	Heat and Energy
<b>PRACTICALS</b>	<b>As per ICSE guidelines</b>
<b>Unit-II</b>	
<b>All chapters of Unit-I are included in the syllabus.</b>	
	<b>THEORY</b>
Chapter : 7	Reflection of Light
Chapter : 8	Propagation of Sound waves
Chapter : 9	Current Electricity
Chapter : 10	Magnetism
<b>PRACTICALS</b>	<b>As per ICSE guidelines</b>

## CHEMISTRY

**Text Book : Concise Chemistry**

**Publisher: Selina Publishers Pvt.Ltd.**

**Author: Dr.D.P.Singh**

**Practical Book : Nova ICSC Chemistry Lab Manual (Class - 9)**

**Publisher : Nova Publications**

### Unit - I

Chapter : 1	The Language of Chemistry
Chapter : 2	Chemical Changes and Reactions
Chapter : 3	Water
Chapter : 4	Atomic Structure and Chemical Bonding
Chapter : 5	The Periodic Table

**Practicals:**

- 1). Recognition and identification of gases by the effect of reagents and/or of heat on substances
- 2). Effect of heat on given substances.
- 3). Action of dilute sulphuric acid ( $H_2SO_4$ ) on given substances.
- 4). Application of flame test in the identification of metallic ion present in the unknown substance.

### Unit - II

**All chapters of Unit - I are included in Unit-II**

**Exam**

Chapter : 6	Study of The First Element - Hydrogen
Chapter : 7	Study of Gas Laws
Chapter : 8	Atmospheric Pollution

**Practicals :**

- 5). Experiments based on hard water and soft water
- 6). Experiments based on Water Pollution

## BIOLOGY

**Text Book : ICSE Concise Biology - for Class IX**

**Publisher : Selina Publishers Private Limited**

**Author : H.S Vishnoi**

### Unit-I

Chapter : 1	Introducing Biology
Chapter : 2	Cell- the unit of life
Chapter : 3	Tissues
Chapter : 4	The Flower
Chapter : 5	Pollination and Fertilization
Chapter : 6	Seeds - Structure and Germination
Chapter : 8	Five Kingdom Classification
Chapter : 10	Nutrition
Chapter : 11	Digestive system
Chapter : 12	Skeleton- Movement and Locomotion
Chapter : 15	Hygiene

Chapter : 16	Diseases- Cause and Control
Chapter : 18	Health Organisations
Chapter : 19	Waste generation and Managements
<b>PROJECT</b>	<b>As per ICSE guidelines</b>
<b>Unit-II</b>	
<b>All chapters of Unit-I are included in the syllabus.</b>	
Chapter : 7	Respiration in plants
Chapter : 9	Economic Importance of bacteria and fungi
Chapter : 13	Skin- Jack of all trades
Chapter : 14	Respiratory system
Chapter : 17	Aids to health
<b>PROJECT</b>	<b>As per ICSE guidelines</b>

<b>Economic Applications</b>	
<b>Text Book: I.C.S.E Economic Applications</b>	
<b>Publisher: Goyal Brothers Prakashan</b>	
<b>UNIT I</b>	
Chapter : 1	Meaning and definition of Economics
Chapter : 2	Basic Economic Entities in an Economy
Chapter : 3	Basic problems of an economy
Chapter : 4	Types of Economies
Chapter : 5	Characteristics of Indian Economy
Chapter : 6	Main Sectors of Indian Economy: Agriculture
Chapter : 7	Main Sectors of Indian Economy : Industry
Chapter : 8	Main Sectors of Indian Economy : Services
<b>Internal Assessment</b>	I) Make a presentation on the central problems an economy faces. Explain these with reference to the Indian economy. II) Take a developed country such as the USA and a developing country such as India, analyse the main characteristics of these economies.
<b>UNIT II</b>	
<b>(All the chapters of Unit I are included in Unit II)</b>	
Chapter : 9	Other sectors of Indian Economy
Chapter : 10	Economic Infrastructure
Chapter : 11	Social Infrastructure
Chapter : 12	Consumer Awareness
Chapter : 13	Globalisation
<b>Internal Assessment</b>	



<b>Commercial Applications</b>	
<b>Text Book : ISC Commerce Vol. I</b>	
<b>Publisher: Goyal Bros. Prakashan</b>	
<b>Author : C.B. Gupta</b>	
<b>Unit-I</b>	
<b>Commercial Applications</b>	
Chapter 1	Introduction to Commercial organisation
Chapter 7	Functioning of a Commercial organisation
Chapter 8	Communication in a commercial organisation
Chapter 9	Ways of communicating
Chapter 10	Tools of Communication
Chapter 11	Nature and Terminology of Accounting
Chapter 12	Accounting Records
<b>PROJECT</b>	<b>Will be discussed in class</b>
<b>Unit-II</b>	
<b>All chapters of Unit-I are included in the syllabus.</b>	
Chapter 13	Natural resources
Chapter 14	Depletion of resources
Chapter 15	Practices for Conservation of resources
Chapter 16	Industrial pollution and degradation of environment
<b>PROJECT</b>	<b>Will be discussed in class</b>

<b>HISTORY AND CIVICS</b>	
<b>Text Book : Indian History World Developments and Civics (ICSE Class IX)</b>	
<b>Publisher: Avichal Publishing Company</b>	
Chapter : 1	Harappan Civilization
Chapter : 2	Early Vedic Civilization
Chapter : 3	The Later Vedic Age
Chapter : 4	India in the 6 <sup>th</sup> Century BC : Rise of Jainism and Buddhism
Chapter : 5	The Mauryan Empire
Chapter : 6	The Sangam Age
Chapter : 7	The Age of the Guptas
Chapter : 8	South India and the Cholas
Chapter : 14	Industrial Revolution and Capitalism and Socialism

<b>Civics</b>	
Chapter : 1	Our Constitution and its Salient Features
Chapter : 3	Elections and the Election Commission
<b>PROJECT</b>	The Industrial Revolution
<b>Unit-II</b> (All the Chapters of Unit I are included in Unit II)	
<b>History</b>	
Chapter : 9	The Delhi Sultanate
Chapter : 10	The Mughal Empire
Chapter : 11	The Composite Culture
Chapter : 12	The Renaissance
Chapter : 13	The Reformation
<b>Civics :</b>	
Chapter : 5	Local Self-Government : Rural Local Institutions
Chapter : 6	Local Self-Government : Urban Local Institutions
<b>PROJECT</b>	Same as Unit I

<b>GEOGRAPHY</b>	
<b>Text Book : Total Geography ( ICSE -9)</b>	
<b>Publisher : Morning Star</b>	
<b><u>UNIT - I</u></b>	
Chapter : 1	Earth As a Planet
Chapter : 3	Rotation & Revolution
Chapter 4	Earth's Structure
Chapter :5	Landforms of the Earth
Chapter : 7	Volcanoes
Chapter : 9	Weathering
Chapter : 11	Hydrosphere
Chapter : 13	Insolation
Chapter : 16	Pollution
Chapter : 17	Sources of Pollution
<b>MAP WORK:</b>	World Map ( Water Bodies , Mountains & Plateaus )
<b>Internal Assignment:</b>	<p>a) Uses of important types of maps.</p> <p>b) Reading &amp; Using statement of scale &amp; Scale shown by representative fraction method . ( No drawing work, only explaining their meaning )</p> <p>c) Drawing &amp; recognising forms of important contours viz. valleys , ridges , types of slopes , conical hills , Plateau , sea cliff ) .</p>

<b>UNIT - II</b>	
Chapter : 2	Geographical grid
Chapter : 6	Rocks
Chapter : 8	Earthquakes
Chapter : 10	Denudation
Chapter :12	Composition & Structure of the Atmosphere
Chapter : 14	Atmospheric Pressure & Winds
Chapter : 15	Humidity
Chapter : 18	Effect of Pollution
Chapter : 19	Preventive Measures
Chapter : 20	Natural Region
<b>Map Work</b>	World Map ( Natural Region )
<b>Internal Assignment:</b>	<b>Meteorological Instruments and their uses : Six's maximum and minimum thermometer , mercury barometer, aneroid barometer, wind vane, anemometer, rain gauge and hygrometer.</b>
<b>NOTE - ALL TOPICS &amp; MAP WORKS ARE INCLUDED IN UNIT II EXAM.</b>	

<b>COMPUTER</b>	
<i><b>Text Book</b> : Understanding Computer Applications with BlueJ Class IX</i>	
<i><b>Publisher</b> : Arya Publishing company</i>	
<i><b>Author Name</b> : Vijay Kumar Pandey and Dilip Kumar Dey</i>	
<b>Unit-I</b>	
Chapter : 1	Introduction to Object Oriented Programming concepts.
Chapter : 2	Elementary Concepts of Objects and Classes.
Chapter : 3	Value and Data Types.
Chapter : 4	Operators in Java and General Programs.
Chapter : 5	Input in Java
Chapter : 6	Mathematical Library Methods
Chapter : 7	Conditional Statements in Java

**PROJECT****General Programs and Programs on Conditional Constructs using BlueJ.****List of the Programs are given below.**

1. Accept the basic salary of an employee from command line and calculate the following incentives as given below and also the gross and net salary.

da = 40% of basic

hra = 20% of basic

medical = 5% of basic

bonus = 10% of basic

pf= 8.33% of basic.

Gross = basic+ hra + da + medical + bonus

Net = gross – pf.

2. The Time Period of a Simple Pendulum is given by the formula:

$$T = 2\pi \sqrt{l/g}$$

Write a program to calculate and display the time period of a Simple Pendulum by taking length(l) and acceleration due to gravity(g) as input.

3. A business man wishes to accumulate 3000 shares of a company. However , he already has some shares of that company valuing Rs. 10 (nominal value) which yields 10% dividend per annum and receives Rs. 2000 as dividend at the end of the year. Write a program in Java to calculate and display the number of shares he has and to calculate how many more shares have to be purchased to meet his target.  
(Hint : No. of Share = (Annual dividend \*100)/ Nominal Value \* div%)
4. Using Scanner class accept a number and check whether it's an "alphabet", a "digit", "space" or "special symbol".

5. A special two-digit number is such that when the sum of its digits is added to the product of its digits, the result is equal to the original two-digit number. Example: Consider the number 59.

Sum of digits = 5 + 9=14

Product of its digits = 5 x 9 = 45

Sum of the sum of digits and product of digits = 14 + 45 = 59

Write a program to accept a two-digit number. Add the sum of its digits to the product of its digits. If the value is equal to the number input, output the message "Special 2-digit number" otherwise, output the message "Not a special 2-digit number".

6. Using the switch statement, write a menu driven program to calculate the maturity amount of a Bank Deposit.

The user is given the following options :

(i) Term Deposit

(ii) Recurring Deposit

For option (i) accept principal (P), rate of interest(r) and time period m years(n). Calculate and output the maturity amount (A) receivable using the formula

$$A = P \left[ 1 + \frac{r}{100} \right]^n$$

For option (ii) accept Monthly Installment (P), rate of interest (r) and time period in months (n). Calculate and output the maturity amount (A) receivable using the formula

$$A = P \times n + P \times \frac{n(n+1)}{2} \times \frac{r}{100} \times \frac{1}{12}$$

For an incorrect option, an appropriate error message should be displayed.

7. Shasha Travels Pvt. Ltd. gives the following discount to its customers:

Ticket amount	Discount
Above Rs. 70000	18%
Rs. 55001 to Rs. 70000	16%
Rs. 35001 to Rs. 55000	12%
Rs. 25001 to Rs. 35000	10%
less than Rs. 25001	2%

Write a program to input the name and ticket amount for the customer and calculate the discount amount and net amount to be paid. Display the output in the following format for each customer:

8. A shopkeeper offers 10% discount on the printed price of a Digital Camera. However, a customer has to pay 6% GST on the remaining amount. Write a program in Java to calculate the amount to be paid by the customer taking printed price as an input.

9. Mr. Agarwal invests certain sum at 5% per annum compound interest for three years. Write a program in Java to calculate:

- (a) the interest for the first year
- (b) the interest for the second year
- (c) the amount after three years.

	<p>Take sum as an input from the user.  Sample Input: Principal = Rs.5000, Rate =10%, Time = 3 yrs  Sample Output: Interest for the first year: Rs.500 Interest for the second year: Rs.550 Interest for the third year: Rs.605</p> <p>10. Using switch case design calculator which will perform the following operations on choosing the following options:</p> <ol style="list-style-type: none"> <li>Addition</li> <li>Subtraction</li> <li>Multiplication</li> <li>Division</li> <li>Remainder.</li> <li>Power</li> <li>Round off</li> <li>Ceiling</li> <li>Floor</li> <li>Exit</li> </ol>
<b>Unit II</b>	
Chapter 8:	Iterative Constructs in Java
Chapter 9:	Nested for Loops
Chapter 10:	Computing and Ethics.
<b>PROJECT</b>	<p><b>Programs on Iterative Constructs and Nested Loops using BlueJ.</b>  <b>Programs are Listed below:</b></p> <ol style="list-style-type: none"> <li>Accept o number and check whether it is a “AutomorphicNumbr or not”.  (Automorphic number: An automorphic number is the number which is contained in the last digit(s) of its square.  Example 25 is an automorphic number as its square is 625 and 25 is present as the last two digits.)</li> <li>The International Standard Book Number (ISBN) is a unique numeric book identifier which is printed on every book. The ISBN is based upon a 10-digit code. The ISBN is legal if:  <math>1 \times \text{digit}_1 + 2 \times \text{digit}_2 + 3 \times \text{digit}_3 + 4 \times \text{digit}_4 + 5 \times \text{digit}_5 + 6 \times \text{digit}_6 + 7 \times \text{digit}_7 + 8 \times \text{digit}_8 + 9 \times \text{digit}_9 + 10 \times \text{digit}_{10}</math> is divisible by 11.  Example : For an ISBN 1401601499  Sum = <math>1 \times 1 + 2 \times 4 + 3 \times 0 + 4 \times 1 + 5 \times 6 + 6 \times 0 + 7 \times 1 + 8 \times 4 + 9 \times 9 + 10 \times 9 = 253</math> which is divisible by 11.  Write a program to :  (i) Input the ISBN code as a 10-digit integer.  (ii) If the ISBN is not a 10-digit integer, output the message, “Illegal ISBN” and terminate the program.  (iii) If the number is 10-digit, extract the digits of the number and compute the sum as explained above.  If the sum is divisible by 11, output the message, “Legal ISBN”. If the sum is not divisible by 11, output the message, “Illegal ISBN”.</li> </ol>

3. Write a program to input a number and check and print whether it is a Pronic number or not. (Pronic number is the number which is the product of two consecutive integers)

Examples :  $12 = 3 \times 4$  .

$20 = 4 \times 5$

$42 = 6 \times 7$ .

4. Using the switch-case statement, write a menu driven program to do the following :

- a) Display the following pattern using iteration (looping) statement:

```
1
3 1
5 3 1
7 5 3 1
9 7 5 3 1
```

- b) Display the following pattern using iteration (looping) statement:

```
A B C D E
B B C D E
C C C D E
D D D D E
E E E E E.
```

5. Write a program to accept a number and check and display whether it is a Niven number or not.  
(Niven number is that number which is divisible by its sum of digits).

**Example:**

Consider the number 126.

Sum of its digits is  $1+2+6 = 9$  and 126 is divisible by 9.

6. Using the switch-case statement, write a menu driven Program to do the following :

(i) void SumSeries(int n, double x) – with one integer argument and one double argument to find and display the sum of the series given below:

$$s = \frac{x}{1} - \frac{x}{2} + \frac{x}{3} - \frac{x}{4} + \frac{x}{5} \dots \dots \dots \text{to } n \text{ terms}$$

(ii) void SumSeries() – To find and display the sum of the following series:

$$s = 1 + (1 \times 2) + (1 \times 2 \times 3) + \dots + (1 \times 2 \times 3 \times 4 \times 20)$$

7. Accept a multidigit number. First check whether the number is a four digit number or not then check whether the number is a Strontio Number or not.  
( Strontio numbers are those four digits numbers when multiplied by 2 give the same digit at the hundreds and tens place. Remember that the input number must be a **four-digit** number.)

	<p style="text-align: center;"><b>Strontio Number Example</b></p> <p>1386*2=2772, we observe that at tens and hundreds place digits are the same. Hence, <b>1386</b> is a strontio number. 1221*2=2442, digits at tens and hundreds place are the same. Hence, <b>1221</b> is a strontio number.</p> <p>Some other strontio numbers are 1111, 2222, 3333, 4444, 5555, 6666, 7777, 8888, 9999, 1001, 2002, 3003, etc.</p> <p>8. Write a Program to Find the G.C.D of two numbers.</p> <p>9. In Java, we can create an ATM program for representing ATM transaction. In the ATM program, the user has to select an option from the options displayed on the screen. The options are related to withdraw the money, deposit the money, check the balance, and exit.</p> <p>To withdraw the money, we simply get the withdrawal amount from the user and remove that amount from the total balance and print the successful message.</p> <p>To deposit the money, we simply get the deposit amount from the user, add it to the total balance and print the successful message.</p> <p>To check balance, we simply print the total balance of the user.</p> <p>10. Write a program in Java to accept a number and find its prime factors.</p>
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<b>Art</b>
<b>(Unit –I)</b>
<b>Text Book :Learn Pencil Shading (Landscape and Object -1)</b> <i>Publisher : Navneet Publications (India) Ltd.</i>
<b>To be done in the art book as well as in the drawing copy :</b>
Page : 19
Page : 21
Page : 23
Page : 27
Page : 29
<b>S.U.P.W (Main Craft/Service)</b>
To be discuss in the class



<b>(Unit –II)</b>	
<b>Text Book :Learn Pencil Shading (Landscape and Object -1)</b> <b>Publisher : Navneet Publications (India) Ltd.</b>	
<b>To be done in the art book as well as in the drawing copy :</b>	
Page : 31	
Page : 33	
Page : 35	
Page : 39	
<b>S.U.P.W (Main Craft/Service)</b>	
To be discuss in the class	

### Unit-I

<b>Environmental Science</b>	
<b>Text Book- ISC Environmental Science</b> <b>Publisher- Marina Publication PVT Ltd</b>	
<b>Theory (80 Marks)</b>	
Chapter- 1	UNDERSTANDING OUR ENVIRONMENT
Chapter- 2	LIVING THINGS IN ECOSYSTEM
Chapter -3	HOW ECOSYSTEMS WORK
Chapter- 4	KINDS OF ECOSYSTEM
Chapter- 5	WATER
Chapter- 6	AIR
<b>Internal Assessment: I (20Marks)</b>	
Project: Topic will be informed in due time	

### Unit-II

<b>Text Book- ISC Environmental Science</b> <b>Publisher- Marina Publication PVT Ltd</b>	
<b>Theory (80 Marks)</b>	
Chapter- 7	ATMOSPHERE AND CLIMATE
Chapter- 8	SOIL AND LAND
Chapter -9	PEOPLE
Chapter- 10	URBANIZATION
Chapter- 11	AGRICULTURE
<b>Internal Assessment: I (20Marks)</b>	
Project: Topic will be informed in due time	