ACADEMIC CURRICULUM

XII-INNOVATORS

SUBJECT: ENGLISH CORE Books Recommended – Course Book: Flamingo, Vistas Grammar and Writing: Integrated Grammar Practice & CBSE Formats				
Module	**Months**	**No. of Days**	**Chapters and Topics to be Taught**	**Learning Objectives**
I	April	18	Tenses (Revision) Notice Writing Article Writing Letter to Editor Reading Comprehension Flamingo: Ch 1 – The Last Lesson, Poem – My Mother at Sixty-Six Vistas: Ch 1 – The Third Level Ch 2 – Lost Spring Invitation (Formal & Informal) Job Application Comprehension Practice	Enhance writing and reading skills through structured formats and comprehension strategies Understand and appreciate themes of language identity, aging, social injustice, and escapism. Develop empathy and express ideas using formal written formats.
II	May	25	Vistas: Ch 2 – The Tiger King Flamingo: Ch 3 – Deep Water Invitation Reply (Formal & Informal) Listening Worksheet 1	Analyze irony, fate, courage, and fear in narratives. Build reflective writing and interpretation skills.

			Comprehension Practice Discussion of Project File Periodic Test 1	
	June	-	**Summer Break**	
III	July	26	Vistas: Ch 3 – Journey to the End of the Earth Flamingo: Ch 4 – The Rattrap, Poem – Keeping Quiet Comprehension Practice	Develop environmental awareness and human values. Encourage introspection and understanding of human dignity.
IV	August	23	Flamingo: Ch 5 – Indigo, Ch 6 – Poets and Pancakes Poem – A Thing of Beauty, Poem – Roadside Stand Vistas: Ch 4 – The Enemy Report Writing	Learn about social leadership, aesthetics, media industry, and war-time ethics. Refine report writing skills.
V	September	25	Flamingo: Ch 7 – The Interview, Poem – Aunt Jennifer's Tigers, Ch 8 – Going Places Vistas: Ch 6 – On the Face of It, Ch 8 – Memories of Childhood Comprehension Practice	Explore ethics of media, gender roles, and social discrimination. Understand struggles of marginalized individuals and personal aspirations.
	October	21	Preboard I Exams	-
	November	20	Revision through worksheets, oral/written tests, quiz, dialogue construction	Reinforce entire year's learning through practice and revision.
	December	**21**	**Preboard II Exams**	
	January	**24**	**Preboard III Exams**	
	February	**-**	**Final Examinations**	

SUBJECT: PHYSICS					
Module	**Month**	**No. of Days**	**Chapters and Topics to be Taught**	**Learning Objectives**	**Activity Planned / Integration of Art/SDGs**
I.	**April**	18	Chapter 1 (Electric charges and fields) Chapter-2: Electrostatic Potential and Capacitance	**Electric Charges and Fields** Understand the concept of electric charge and its properties. Apply Coulomb's law to calculate forces between charges. Describe the electric field and calculate it for simple charge distributions. Understand the concept of electric flux and Gauss's law and apply it to symmetric charge distributions. **Electrostatic Potential and Capacitance** Define electrostatic potential and potential difference. Understand the relation between electric field and potential. Calculate potential due to point charges and systems of charges. Understand the concept of capacitance and derive expressions for capacitors. Learn about energy stored in capacitors and combination of capacitors.	Charging of a conductor through friction by using pieces of paper and scale To assemble a household circuit comprising three bulbs, three (on/off) switches, a fuse and a power source.
II.	**May**	25	Chapter-3: Current Electricity Chapter-4: Moving Charges and Magnetism	**Current Electricity** Understand the concept of electric current and drift velocity. Apply Ohm's law and understand resistivity and conductivity. Analyze circuits using Kirchhoff's laws and Wheatstone bridge.	To determine resistivity of two / three wires by plotting a graph for potential difference versus current. To find resistance of a given

				Study the working and principle of potentiometer. **Moving Charges and Magnetism** Understand magnetic effects of current and Biot-Savart law. Analyze magnetic field due to current-carrying wires and loops. Understand Ampere's circuital law and its applications. Learn about Lorentz force and motion of charged particles in magnetic fields. Study the concept of cyclotron and force between current-carrying wires.	wire / standard resistor using metre bridge. To verify the laws of combination (series) of resistances using a metre bridge
Periodic Test -I (Based on the Syllabus covered in April)					
June - Summer Vacations					
III.	**July**	26	Chapter-5: Magnetism and Matter Chapter-6: Electromagnetic Induction Chapter-7: Alternating Current	**Magnetism and Matter** Understand the concept of magnetic dipole and Earth's magnetism. Differentiate between dia-, para-, and ferromagnetic substances. Study magnetic field lines and magnetic properties of materials. Understand hysteresis and magnetic susceptibility. **Electromagnetic Induction** Understand Faraday's laws and Lenz's law of electromagnetic induction. Analyze induced EMF and current in different situations. Derive and use expressions for motional EMF and self/ mutual inductance. Study energy stored in inductors. **Alternating Current** Understand alternating current and its characteristics. Analyze AC circuits containing resistors, capacitors, and	To assemble the components of a given electrical circuit. To convert the given galvanometer (of known resistance and figure of merit) into a voltmeter of desired range and to verify the same To draw the diagram of a given open circuit comprising at least a battery, resistor/rheostat, key, ammeter and voltmeter. Mark the components that are not connected in proper order and correct the circuit and also the circuit diagram.

				inductors. Derive expressions for power in AC circuits and power factor. Study the working of transformers and LCR circuits.	
IV.	**August**	23	Chapter-8: Electromagnetic Waves Chapter -9: Ray Optics and Optical Instruments - Ray Optics: Chapter – 10 Wave optics	**Electromagnetic Waves** Understand displacement current and unification of electric and magnetic fields. Study Maxwell's equations (qualitative) and EM wave propagation. Know the properties and spectrum of electromagnetic waves. Understand practical uses of different parts of the EM spectrum. **Ray Optics and Optical Instruments** Apply laws of reflection and refraction. Use mirror and lens formulas to solve optical problems. Understand total internal reflection and its applications. Learn about optical instruments like microscopes and telescopes. **Wave Optics** Understand the principle of superposition of waves. Study interference, Young's double slit experiment, and its fringe pattern. Learn about diffraction and resolving power. Understand polarization and its applications.	To find the value of v for different values of u in case of a concave mirror and to find the focal length. To find the focal length of a convex lens by plotting graphs between u and v or between 1/u and 1/v. To determine angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation.
V.	**September**	**25**	Chapter-11: Dual Nature of Radiation and Matter Chapter-12: Atoms Chapter-13: Nuclei Chapter-14: Electronic devices	**Dual Nature of Radiation and Matter** Understand photoelectric effect and Einstein's equation. Analyze experimental setup and graph of photoelectric effect. Learn about de Broglie wavelength and its significance. **Atoms** Study Rutherford's and Bohr's models of the atom. Derive expressions for energy levels and spectral lines of	To identify a diode, an LED, a resistor and a capacitor from a mixed collection of such items To draw the I-V characteristic curve for a p-n junction diode in forward

				hydrogen. Understand atomic spectra and their significance. **Nuclei** Understand nuclear composition and terms like mass defect and binding energy. Study nuclear forces and radioactivity. Learn about nuclear reactions and nuclear energy. **Semiconductor Electronics: Materials, Devices and Simple Circuits** Understand energy bands in solids and types of semiconductors. Study the working of p-n junction, diodes, and their applications, Analyze rectifiers	bias and reverse bias.
	October	21	**REVISION and PRE BOARD I**		
	November	20	**REVISION**		
	December	21	**REVISION and PRE BOARD II**		
	January	24	**REVISION and PRE BOARD III**		
	February	-	**ANNUAL EXAMINATION**		

Subject- Chemistry, Grade- XII Book: N.C.E.R.T.					
Module	**Months**	**No. of Days**	**Chapters and Topics to be Taught**	**Learning Objectives**	**Activity Planned / Integration of Art/SDGs**
I	**April**	18	Chapter-1 Solution Chapter-2 Electro Chemistry	1) Understand concentration terms i.e. Molarity, Molality and Mole fraction 2) Analyze factors affecting solubility and Henry's law 3) Differentiate between ideal and non-ideal solutions	To demonstrate the Volumetric analysis between $KMnO_4$ and Oxalic acid

			(up to Nernst Equation)	4) Determination of molar mass of solute by using different colligative properties. 5) Study electrochemical cells and measurement of electrode potentials		
II	**May**	25	Chapter-2 Electro Chemistry (after Nernst Equation) Chapter-6 Halo alkanes and halo arenes	1) Apply Nernst equation to calculate standard e.m.f. of the cell 2) Calculation of maximum work done 3) Differentiate between primary and secondary cells 4) Study nomenclature, physical and chemical properties of halo compounds	To prepare Zinc Copper Electro Chemical Cell	
Periodic Test -I (Based on the Syllabus covered in April)						
June- Summer Break						
III	**July**	26	Chapter-7 Alcohols, Phenols and Ether Chapter-5 Coordination Compounds	1) Know IUPAC nomenclature of alcohol, phenol and ether 2) Understand reactions of alcohols, phenols, and ethers 3) Learn about Werner's theory, isomerism and nomenclature of coordination compounds 4) Study hybridization and structure of different coordination compounds	To determine the presence of Functional group in the given organic compound (Alcohol and Phenol) To prepare the crystals of Mohr's salt	
IV	**August**	23	Chapter-10 Bio molecules Chapter-8 Aldehydes, Ketones and Carboxylic Acid	1) Identify the structure and function of carbohydrates, proteins, vitamins, and nucleic acids 2) Differentiate between DNA and RNA 3) Know IUPAC nomenclature of aldehyde, ketone and carboxylic acid 4) Understand naming reactions of aldehyde and ketone 5) Study chemical reactions and tests of carbonyl compounds	To detect the presence of starch and proteins in different food stuffs To determine the presence of Functional group in the given organic compound (Aldehydes, Ketones and Carboxylic Acid)	
V	**September**	25	Chapter-9 Amines Chapter-4	1) Understand classification of amine 2) Know preparation and reactions of amines 3) Study properties of transition elements	Color code periodic table highlighting d and f block To calculate Average rate	

			d and f Block Elements Chapter-3 Chemical Kinetics	4) Understand lanthanide contraction, its cause and consequences 5) Differentiate between Lanthanoids and Actinoids 6) Explore rate laws, order of reaction and activation energy 7) Know the concept of half life period 8) Derive integrated rate equations for zero and first order reaction	and Instantaneous rate of a reaction. Drawing curves for Zero, First, Second and Third Order reactions
	October	21	**Pre Board –I**		
	November	20	**Revision**		
	December	21	**Pre Board –II**		
	January	24	**Pre Board –III & Annual Board Practical**		
	February	-	**Revision and Annual Board Examination**		

Subject – BIOLOGY, Grade- XII Book: N.C.E.R.T.					
Module	**Month**	**Number of Working Days**	**Chapter Number and Chapter Name**	**Learning objectives**	**Practical's/ activity planned/ Integration of Art/SDGs**
1.	April	18	Chapter-2: Sexual Reproduction in Flowering Plants. Chapter-3: Human Reproduction. Chapter-4: Reproductive Health.	❖ Identify and describe the structure and function of floral parts involved in reproduction. ❖ Understand microsporogenesis and megasporogenesis. ❖ Explain pollination types and the role of agents (insects, wind, water). ❖ Describe double fertilization and post-fertilization changes leading to seed and fruit formation. ❖ Understand the structure and function of the seed and fruit. ❖ Describe male and female reproductive systems and their functions. ❖ Understand gametogenesis – spermatogenesis and oogenesis. ❖ Explain fertilization, implantation, and embryonic	• Dissection of a flower. • Pollen germination experiment • SDG 15 (Life on Land) • T.S. of ovary (mammal), T.S. of testis (mammal). • Flowers adapted to pollination. • T.S. of blastula through permanent slides • Controlled pollination

				development. ❖ Understand the menstrual cycle and hormonal control. ❖ Learn about pregnancy, parturition, and lactation. ❖ Understand the concept and importance of reproductive health. ❖ Learn about birth control methods and population control. ❖ Discuss sexually transmitted diseases (STDs) – causes, prevention, and control. ❖ Understand infertility and assisted reproductive technologies (ART) like IVF, IUI, etc.	- emasculation, tagging and bagging. • SDG 5 (Gender Equality) • SDG 3 – Good Health and Well-being. • SDG 15 – Life on Land
2.	May	25	Chapter-5: Principles of Inheritance and Variation. Periodic Test-1	❖ Understand **Mendel's Laws**: ❖ Dominance, Segregation, Independent Assortment. ❖ Perform and analyse **monohybrid** and **dihybrid crosses** using Punnett squares. ❖ Differentiate between **dominance, co-dominance, and incomplete dominance**. ❖ Understand **chromosomal basis of inheritance**. ❖ Comprehend **sex determination** systems (XX-XY, XO, ZW). ❖ Learn **pedigree analysis** and **Mendelian disorders** (e.g., Sickle cell anemia, hemophilia). ❖ Recognize **chromosomal disorders** (e.g., Down, Klinefelter, Turner syndromes). ❖	• **Punnett square activity**: Use colored beads or flashcards to simulate monohybrid and dihybrid crosses. • **Pedigree analysis practice**: Use family case studies to construct and analyse. •
3.	June	**Summer Vacations**			
4.	July	26	Chapter-6: Molecular Basis of Inheritance. Chapter-7: Evolution.	❖ Understand the **structure and function of DNA and RNA**. ❖ Explain **DNA replication**, **transcription**, **translation**, and **gene expression**. ❖ Understand the **genetic code** and its universality. ❖ Learn about the **Human Genome Project** and **DNA fingerprinting**. ❖ Develop awareness about **genetic engineering and biotechnology** foundations. ❖ Understand **evolutionary theories**: Lamarckism,	• **DNA extraction experiment**: Extract DNA from banana or onion using household items (ethanol, salt, detergent). • **DNA model building**: Use craft supplies to model

				Darwinism, Neo-Darwinism. ❖ Learn about **fossils**, **evolution of life foms**, and **human evolution**. ❖ Explain the concepts of **variation, mutation, genetic drift, speciation**. ❖ Understand **Hardy-Weinberg Principle** and factors affecting genetic equilibrium. ❖ Appreciate the **interconnectedness of life** and biodiversity through evolution.	DNA double helix. • pedigrees. • Flash cards models showing examples of homologous and analogous organs. • SDG 9 – Industry, Innovation and Infrastructure • SDG 4 – Quality Education
5.	August	23	Chapter-8: Human Health and Diseases. Chapter-10: Microbes in Human Welfare. Chapter-11: Biotechnology - Principles and Processes. Chapter-12: Biotechnology and its Applications.	❖ Understand the meaning of **health**, causes of **diseases** (infectious and non-infectious). ❖ Learn about **pathogens** (bacteria, viruses, parasites) and diseases caused by them (e.g., malaria, AIDS, cancer). ❖ Understand the role of the **immune system** (innate and acquired immunity). ❖ Learn about **vaccines, allergens**, and **immune disorders**. ❖ Discuss **drug and alcohol abuse**, their consequences, and prevention. ❖ Understand the role of **microbes in household products** (curd, cheese, beverages). ❖ Learn about industrial uses of microbes (e.g., production of antibiotics, alcohol, enzymes). ❖ Understand **sewage treatment**, **biogas production**, and **biocontrol agents** (e.g., *Trichoderma*, *Bacillus thuringiensis*). ❖ Appreciate the eco-friendly use of microbes in **organic farming and waste management**. ❖ Understand the **basic principles of biotechnology** – genetic engineering and bioprocess engineering. ❖ Describe tools of genetic engineering – **restriction enzymes**, **vectors**, **host organisms**, and **PCR**. ❖ Learn about the steps in **recombinant DNA technology**: isolation of DNA, cutting, ligating, inserting into host, and cloning. ❖ Understand how **bioreactors** work and their role in	• Common disease causing organisms like Ascaris, Entamoeba, Plasmodium, any fungus causing ringworm through, virtual images or specimens. • Models specimen showing symbolic association in root modules of leguminous plants, lichens. • SDG 3 – Good Health and Well-being. • SDG 6 – Clean Water and Sanitation • SDG 7 – Affordable and Clean Energy. • SDG 9 – Industry, Innovation and Infrastructure • **DNA Extraction Activity**: Extract DNA from banana or

				large-scale production of biologically important products. ❖ Gain insights into **transformation**, **selection markers**, and the role of **plasmids and bacteriophages**. ❖ learn about **applications of biotechnology** in agriculture (e.g., Bt cotton), medicine (e.g., insulin, gene therapy), and industry ❖ Understand the concept and role of **transgenic organisms**. ❖ Discuss **GM crops**, biofortification, and resistance to biotic/abiotic stresses. ❖ Understand the concept of **molecular diagnosis** and techniques like ELISA and PCR. ❖ Explore the **ethical, legal, and social issues** of biotechnology, including **biopiracy and** ❖ **biosafety**.	onion using household items (detergent, salt, alcohol). • **Animated Videos or Simulations**: Show step-by-step recombinant DNA technology or gel electrophoresis. • **Poster making** Applications of biotechnology in agriculture, medicine, and environment. • **SDG 2 – Zero Hunger**, • **SDG 3 – Good Health**, • **SDG 13 – Climate Action**
6.	September	25	Chapter-13: Organisms and Populations. Chapter-14: Ecosystem. Chapter-15: Biodiversity and its Conservation.	❖ Study **population attributes** – birth rate, death rate, age distribution, growth models (exponential, logistic). ❖ Understand **population interactions** – mutualism, competition, predation, parasitism. ❖ Understand **structure and function of ecosystems** – producers, consumers, decomposers. ❖ Comprehend **energy flow**, food chains, food webs, and ecological pyramids. ❖ Learn about **biodiversity levels** – genetic, species, ecosystem. ❖ Study the importance of biodiversity and causes of biodiversity loss. ❖ Understand strategies for **biodiversity conservation** – in-situ and ex-situ methods. ❖ Recognize the value of national parks, biosphere reserves, and gene banks.	• Study the plant population density by quadrat method. • Study the plant population frequency by quadrat method. • Graph plotting of population growth curves (logistic vs exponential). • Poster Making: Endangered species, biodiversity hotspots, conservation methods. • SDG 15 – Life on Land • SDG 14 – Life Below

					Water, • SDG 15 – Life on Land
October	21	**Pre Board –I**			
November	20	**Revision**			
December	21	**Pre Board –II**			

Subject – MATHS, Grade- XII **Book: N.C.E.R.T.**					
Module	**Month**	**No. of Days**	**Chapters and Topics to be Taught**	**Learning Objectives**	**Activity Planned / Integration of Art/SDGs**
I	April	18	Ch-2 Inverse Trigonometric Functions Ch-3 Matrices Ch-4 Determinants	- Understand definitions and properties of inverse trigonometric functions. - Learn basic operations on matrices and their applications. - Understand the properties of determinants and their use in solving systems of linear equations.	-Draw trigonometric graphs . - Solve real-life matrix operations. - Sudoku-type determinant puzzles.
II	May	25	Ch-5 Continuity & Differentiability Ch-7 Integration Ch-8 Application of Integrals	- Learn about continuity and differentiability of functions. - Integrate simple functions and apply them in problems(both definite & indefinite integral) - Understand the calculation of area under curves using integrals.	- Plotting curves and calculating area using integration.
June					

Summer break					
III	July	26	Ch-9 Differential Equations Ch-12 Linear Programming Problems Ch-13 Probability	- Understand types and solutions of differential equations. - Formulate and solve LPPs using graphical methods. - Apply probability in practical situations and conditional probability,multiplicative law,bayes ,law of total probability.	-LPP Activity: Optimize food distribution within a budget. - Probability game with dice/cards.
IV	August	23	Ch-10 Vectors Ch-11 Three Dimensional Geometry	- Understand vector algebra, scalar and vector products. - Learn about lines in 3D using vector and Cartesian forms.	- 3D modeling using paper straws or software. - Intersecting lines & plane models.
V	September	25	Ch-1 Relations & Functions Ch-6 Application of Derivatives	- Understand types of relations and functions. - Apply derivatives in real-life problems like rate of change, ,increasing & decreasing function ,maxima & minima.	-To verify that the relation R in the set L of all lines in a plane ,defined by R=(l, m : l is perpendicular to m) is symmetric but neither reflexive nor transitive .
VI	**October**	21	**REVISION and PRE BOARD I**		
VII	**November**	21	**REVISION**		
VIII	**December**	21	**REVISION and PRE BOARD II**		
IX	**January**	24	**REVISION and PRE BOARD III**		
X	**February**	23	**ANNUAL EXAMINATION**		

Subject – PHYSICAL EDUCATION, Grade- XII Book: SP Publication					
Module	**Month**	**Number of Working Days**	**Chapter Number and Chapter Name**	**Learning objectives**	**Practical's/ activity planned/ Integration of Art/SDGs**
I	April	18	- Unit I: Management of Sporting Events- Unit X: Training in Sports - Unit II: Children & Women in Sports- Unit III: Yoga as a Preventive Measure for Lifestyle Diseases	Understand planning & conducting sporting events- Learn principles of training - Recognize challenges in sports for children and women- Understand yoga's role in preventing lifestyle diseases	- Physical Fitness Test: SAI Khelo India Test, BPFT- Practice (Unit I)- Yoga Practice (Unit II)
II	May	25	- Unit IV: Physical Education & Sports for CWSN- Unit IX: Psychology & Sports	- Understand inclusivity and adaptive sports for CWSN- Learn psychological principles in sports	- Skill Practice (Unit III)
			Periodic Test-1 Syllabus: Unit I, II, & X		
III	June	10			
IV	July	26	- Unit V: Sports & Nutrition- Unit VIII: Biomechanics & Sports Unit V: Sports & Nutrition (Continued)- Unit VI: Test & Measurement in Sports	-- Understand balanced diet and nutrition for athletes- Learn biomechanics principles and techniques in sports -- Continue understanding athlete nutrition- Learn various testing and measurement techniques	Physical Fitness Test: SAI Khelo India Test, BPFT- Practice- Yoga Practice- Skill Practice- Record File (Unit I)- Practical (Unit II)

V	August	23	- Unit VI: Test & Measurement in Sports (Continued)- Unit VII: Physiology & Injuries in Sports	- Reinforce knowledge of sports testing- Learn human physiology and injury management	—
VI	September	25	- Unit VII: Physiology & Injuries in Sports (Continued)	- Continue understanding body functions during sports and injury recovery	- Record File – Practical 3
Half-Yearly Exam Syllabus: Unit I, II, IV, V, VI & VIII					
VII	October	21	- Unit VIII: Biomechanics & Sports- Unit IX: Psychology & Sports	- Deepen biomechanical understanding- Apply sports psychology in real-life scenarios	- Physical Fitness Test: SAI Khelo India Test, BPFT- Practice- Yoga Practice- Skill Practice
	November	20	Revision	- Reinforce concepts for Pre-Board exams	—
	December	21	Revision	- Prepare for CBSE board pattern and question styles	—
	January	23	Revision	- Prepare for CBSE board pattern and question styles	—

Subject – MUSIC , Grade- XII Books Recommended - Sangeet Aanand					
Module	**Month**	**Number of Working Days**	**Chapter Number and Chapter Name**	**Learning objectives**	**Practical's/ activity planned/ Integration of Art/SDGs**
I	April	18	Definitions-Alankar,kann, Decription of Raag bhairav. 1)Definitions- meend, khataka, gram, murchana, Alap. 2) description of Taal Jhaptaal. 3) Biography - Bade Gulam ali Khan	Introduction of Swar Raag bhairav Chota Khayal. Introduction of taal jhaptaal to learn notation system	Students will sing a Swar Raag bhairav only Aaroh - Avroh with Harmonium Ability to recite the jhaptaal with ekgun, dogun keeping taal with hand beat.
II	May	25	1) brief Study of sangeet Ratnakar Granth 2) brief study of Sadra - Dadra. 3) Raag bhairav Chota khayal Notation with Taans.	Raag bhairav bandish notations with taan 8 matra and 16 matra.	Students will sing a bandish notation with harmonium.
	June	-	**Summer Break**		
III	July	26	1) life Sketch and contribution of Abdul Karim Khan, faiyaz Khan. 2)description of Raag Malkauns.	Introduction of Raag malkauns notations system as well as taans.	Students will sing a raag malkauns with harmonium.
IV	August	23	1)Brief study of Sangeet parijat . 2) Introduction of taal rupak ekgun, dogun, tingun.	Introduction of Taal rupak and to learn Notation system	Ability to recite the Rupak with ekgun, dogun keeping taal with hand beat.

			2) time theory of Raag		
V	September	25	1)Description of Raag bageshwari. 2)Introduction of taal Dhamar. 3) Vilampit Khayal of Raag bhairav.	Introduction of raag bageshwari to learn notation System And taal dhamar taal notation system. .	Ability to recite the Dhamar with ekgun, dogun keeping taal with hand beat. Students playing raag bageshwari with harmonium with taans.
	October	21	**Preboard I Exams**		
	November	20	Revision through worksheets,		Students will sing a raags with harmonium and hand beat taals.
	December	21	**Preboard II Exams**		
	January	24	**Preboard III Exams**		
	February	-	**Final Examinations**		

Subject – PAINTING , Grade- XII Books Recommended – PANORAMIC INDIAN					
Module	**Month**	**Number of Working Days**	**Chapter Number and Chapter Name**	**Learning objectives**	**Practical's/ activity planned/ Integration of Art/SDGs**
	April	18	**Unit 1 (a) The Rajasthani School:** 1. Origin and Development 2. Sub-Schools-Mewar, Bundi, Jodhpur, Bikaner, Kishangarh and Jaipur 3. Main features of the Rajasthani School 4. Appreciation of the following Rajasthani paintings Title 5. Maru-Ragini chaugan players,Krishna on swing,Rada(Bani-Thani)	To understand how the Rajasthani School of painting started in the 16th century, influenced by Mughal art and supported by Rajput Kings.	Nature and Object study with two or three objects and two draperies (in different colours) for background and foreground. Exercises in pencil with light and shade and in full colour from fixed point of view.
	May	25	**(b) The Pahari School** 1. Origin and development 2. Sub-Schools-Basohli, Guler, Kangra, Chamba and Garhwal 3. Main features of the PahariSchool 4. Appreciation of the following Pahari paintings: Title 5. Krishna with Gopis Nand, Yashoda 6. Krishna with Kinsmen Going to Vrindavana	To understand that the Pahari School began in the Himalayan hills (17th–18th century), influenced by Rajput and Mughal styles, and supported by local rulers.	Nature and Object study with two or three objects and two draperies (in different colours) for background and foreground. Exercises in pencil with light and shade and in full colour from a fixed point of view
			Periodic Assessment-1		
	June		Summer Break		
	July	26	**Unit 2 The Mughal and Deccan Schools of Miniature Painting** (a) The Mughal School		Imaginative painting based on subjects from Life and Nature in water and poster colours with colour

			1. Origin and development 2. Main features of the Mughal School 3. Appreciation of the following Mughal Paintings: Title 4. Krishna Lifting Mount Govardhana 5. Falcon on a Bird-Rest 6. Kabirand Raidas 7. Khan Marriage Procession of Dara Shukoh	To understand how the Mughal School started in the 16th century under Emperor Akbar, combining Indian and Persian art styles, and developed during the rule of Akbar, Jahangir, Shah Jahan, and Aurangzeb.	values
	August	23	**(b) The Deccan School** 1. Origin and development 2. Main features of the Deccan School 3. Appreciation of the following Deccan paintings: Title 4. Hazrat Nizamuddin Auliya and Amir Khusro 5. Chand Bibi Playing Polo (Chaugan) Revision for Exam	To learn that the Deccan School developed in the southern part of India during the 16th century, mainly in the courts of Golconda, Ahmednagar, Bijapur, and Hyderabad, influenced by Persian art and local traditions.	Imaginative painting based on subjects from Life and Nature in water and poster colours with colour values
	September	25	**Unit 3: (a) The Bengal School of Painting and the Modern trends in Indian Art (About the beginning to mid of the 20th Centuary)** (i) National Flag of India and the Symbolic significance of its forms andthe colours. (ii) Introduction to the Bengal School of Painting (a) Origin and development of the Bengal School of Painting (b) Main features of the Bengal	To understand the **design** and **meaning** behind the **Indian National Flag**.	Nature and Object study with two or three objects and two draperies (in different colours) for background and foreground. Exercises in pencil with light and shade and in full colour from a fixed point of view

			School of Painting 12		
			Term-I Exams		
	October	21	(iii) Appreciation of the following paintings of the Bengal school: (i) Journey's End – Abanindranath Tagore (ii) Shiv and Sati- Nandla Bose (iii) Radhika - M.A.R.Chughtai (iv) Meghdoot - Ram Gopal Vijaivargiya Contribution of Indian artists in the struggle for National FreedomMovement.	To observe and understand the **style, theme, and emotions** in selected Bengal School paintings.	Nature and Object study with two or three objects and two draperies (in different colours) for background and foreground. Exercises in pencil with light and shade and in full colour from a fixed point of view.
	November	20	(i) Children – Somnath Hore (ii) Devi – Jyoti Bhatt (iii) Of Walls – AnupamSud (IV) Man, Woman and Tree - K. Laxma Goud	To appreciate Somnath Hore's graphic print capturing innocence and suffering through the image of children.	Imaginative painting based on subjects from Life and Nature in water and poster colours with colour values.
	December	21	SCULPTURE I. Triumph of labour – D.P. Roy chowdhury II. Santhal family – Ramkinkar vaij III. Caries un-heard – Amar nath Sehgal IV. Ganesh – P.V. Janki ram	To appreciate D. P. Roychowdhury's sculpture which represents the strength and dignity of labor	Imaginative painting based on subjects from life and nature in water and poster colours with colour values
	January	24	Revision of Unit-1,2,3		• Folk art • Object study(still life) • Nature study

Subject – COMPUTER SCIENCE , Grade- XII Book: N.C.E.R.T.					
Module	**Month**	**Number of Working Days**	**Chapter Number and Chapter Name**	**Learning objectives**	**Practical's/ activity planned/ Integration of Art/SDGs**
I	April	18	Unit 1: Computational Thinking and Programming – 2 Unit 2 of Class XI Recap: 1. Functions 2. Exception Handling 3. Introduction to files (Text, Binary, CSV, relative and absolute paths)	Understand modular programming and error handling. Differentiate file types and apply read/write operations.	Python file reading exercises Hands-on examples using different file types
II	May	25	File Handling in Python Importing Modules	Apply advanced file operations using modules. Understand modular coding practices.	Practical on importing built-in and user-defined modules
	June				
III	July	26	Unit 2: Computer Networks 1. Data communication terminologies 2. Transmission media 3. Network topologies and types **Periodic Test 1**	Understand the basics of communication and networking. Identify different transmission modes and topologies.	Network diagram drawing Oral Quiz on terminologies
IV	August	23	Real Time Network Problems Data Structures: - Stack (push & pop)	Analyze real-world networking issues. Implement stack operations in	Code exercises for stack implementation

			- Implementation using list	Python.	Case studies on network failures
	September	25	****Half-Yearly Examination****		
V	October	21	Unit 3: Database Management 1. Database Concepts 2. Relational Data Model 3. Structured Query Language Final Project Work Begins	Understand the structure of relational databases. Write and execute basic SQL queries.	Hands-on SQL commands using sample databases
VI	November	20	Python-SQL Connectivity Final Project Completion	Integrate Python with SQL database for real-world applications. Apply project development lifecycle.	Final Project Demo Internal Assessment
	December	21	**Revision of whole syllabus**		
	January	24	**Revision of whole syllabus**		