BHARATIYA VIDYA BHAVAN VIDYASHRAM

K.M MUNSHI MARG, JAIPUR

SYLLABUS 2022-2023

Class: XII

<u>Subject: English Core</u>

Prescribed Books: 1. Flamingo (NCERT)

2. Vistas (NCERT)

Month	Name of the topic	Learning Outcome
April	**Flamingo:** **Prose** • The Last Lesson	By the end of this lesson, students will be able to- • analyse in detail how a key individual, event or idea is introduced in the text. • develop their optimistic attitude towards life amidst many struggles. • familiarize themselves with specific background information of Alphonse Daudet/ history of France • make connections between similar situations in different storylines/life experiences like Indians under British imperialism.
	Poetry • My Mother at Sixty-six	By the end of this lesson, students will be able to- • grasp the theme and meaning of the poem. • read the poem with proper tone and rhyme and develop an interest in poetry. • Their vocabulary would be strengthened. • Their analyzing skills would be enhanced. • Know more about Kamla Das, her writing style and her personal life. • Learn more about the diversity in literature across different lands and different subject matter used by authors.
		By the end of this lesson, students will be able to- • Summarize the story in a gap-filling exercise. • recall the important points of the story through a questionnaire, fill-in, reference to the context and MCQ quiz. • Learn more about the author's style of writing and

	Vistas: • The Third Level	the touch psychological complexity. • Learn more on how war and insecurities affect people and their psychology. • Infer the meaning of some important statements in the story writing a short note on them. • Debate if Charlie has visited third level by writing a short note on it. By the end of this lesson, students will be able to- • uncover motives, absorb didactics. • add more to their treasure of vocabulary, know more about South Indian Literature and its contribution. • learn about the then set of cultures spread across the realm • Learn about the royal Indian background information of the author/history of cruel insensitive kings who found pleasure in hunting and killing innocent animals. • understand the importance of becoming sincere and trustworthy in thought and action. • Develop an understanding,be responsible, tolerant and have respect for class identities – democratic citizenship.
	• The Tiger King	
		• Students will be able to analyse any NOTICE shown to them on the basis of the knowledge imparted. • They will be able to frame notice about any event. • They will be able to identify important information in any given notice. • Students will be able to use appropriate style and format to write a NOTICE effectively.
	Notice Writing, Letter to the Editor (giving suggestions or opinion on issues of public interest)	
May	**Flamingo:** **Prose** • Lost Spring	By the end of this lesson, students will be able to- • sensitize themselves with the problem of child labour.

		• Integrate information as well as words to develop a coherent understanding of the topic.
		• sensitize themselves, help themselves in identifying and making connections between experiences where one finds contrast between dreams and realities of life.
		• Engage in independent reflection and enquiry.
	Invitation -Formal/Informal Invitation and Reply	• The learners would be able to express their ideas cohesively, completely, fluently and spontaneously with expressions, grammar usage and relevant vocabulary for a hospitable announcement of an event.
July	**Vistas:** • Journey to the End of the Earth	By the end of this lesson, students will be able to- • Learn appreciating, reasoning and justifying; Extracting relevant information; drawing comparisons with the help of contrasting images. • unfold their logical thinking skills. • Their vocabulary will be enriched. • Learn that the climate is changing drastically and it's time to be alarmed. • Learn more about the biodiversity and wildlife of Antarctica. • Know more about Tishani Doshi and her writing style. • Get inspiration to write travelogue in the similar fashion. By the end of this lesson, students will be able to- • Enhance their creative writing skills. They would develop their listening skills proficiency. • strengthen their decision-making skills. • write formal reports for school magazines/events. • Know more about the author, human rights and

	Flamingo: **Prose** • Deep Water	• campaigns. • Sensitize themselves about bullying and learn to speak against it. • Add more words to their treasure of vocabulary. By the end of this lesson, students will be able to- • effectively provide a synopsis of the story. • analyze the values and thought process of the story. • develop an intellectual psychology about the functioning of the world. • appreciate the significance of developing personal fears yet rising above them to savour real liberty. • Enrich their vocabulary.
	• The Rattrap	By the end of this lesson, students will be able to- • learn to appreciate poetry and read aloud with proper intonation. • prepare for poetic forms and adept them with the figures of speech, rhyme and rhythm. • understand the idea that the moments of silence break shackles of discrimination, hatred, violence and create an exotic moment of togetherness. • understand that speech is silver and silence is gold. It's high time for self-introspection.
	Poetry • Keeping Quiet	By the end of this lesson, students will be able to- • learn that a thing of beauty is joy forever. It transcends time. It will never fade away. Beauty has the power to remove darkness and negativity and helps us survive the dearth of noble nature or when surrounded by evilness. • understand Keats' extraordinary sense-perception. Keats perceives beauty through his natural and spontaneous application of senses. He derives

		great aesthetic delight at the sight of objects of Nature.
		• develop skills of creativity, imagination and aesthetic sense.
		• realise the social issue that there has been a degradation of aesthetic sense among people in their busy monotonous schedule of life
	• A Thing of Beauty	• The learners will be able to discuss the purpose of various reports.
		• They will be able to describe the kinds of information to include in specific reports and identify tips for writing a clear, concise, and useful report.
		• They will recognize and address patterns and trends and be able to explain how the tone of a report can affect worker morale and motivation.
	Report Writing, Job Application- application for a job with bio data or resume	• The learners would be able to organise their thoughts and express freely
		• They would develop an interest towards writing ,thus enhancing their writing skills.
		• Their thinking skills would be enhanced.
August	**Flamingo:** **Prose** • Indigo	By the end of this lesson, students will be able to-
		• learn that the leadership qualities of Mahatma Gandhi secured justice for oppressed people by following the path of nonviolence.
		• learn that the exploitations of Indigo sharecroppers at the hands of cruel British planters highlights the unequal economic system that existed during British colonialism.
		• along with the political and economical solution Gandhiji also brought social solution by making arrangements for education, health and hygiene of poor families and taught them a lesson of self-reliance.
		• understand and value the contribution made by ordinary people to the freedom movement.
		By the end of this lesson, students will be able to-
		• familiarize themselves with specific background of

		political enmity.
	Vistas: • The Enemy	• identify and make connections between similar situations in own life experiences where our prejudices often hinder our human compassion and empathy for a political enemy. • understand the significance of professional ethics and social obligation in sensitive times. • develop skills of creativity, imagination and aesthetic sense. • the students would develop an interest towards writing. Their planning and organizing techniques would be enhanced. They would be able to research on any subject and derive information from facts and present him in the form of a written piece. Their creative writing would be analysed.
	Article	• the interpreting and evaluative skills would be strengthened.
September	**Flamingo:** **Prose** • Poets and Pancakes	By the end of this lesson, students will be able to- • learn to document the main events, ideas and using verbs to develop a bigger picture. • Identify the moral issues raised. Perceive the overall meaning and organization of the text; develop the skills of reasoning. • select and extract relevant information, using reading skills of skimming and scanning. • specifically develop the ability to be original and creative in interpreting opinion, develop the ability to be logically persuasive in defending one's opinion and making notes based on a text.
	Vistas: • On the Face of It	By the end of this lesson, students will be able to- • fight out their loneliness, depression and disappointment. • accept the physically challenged people positively in their life and expand their social interaction. • build up optimism and self-confidence. • ascertain the kind of issues raised through someone's life and struggle.

	Comprehension Passages **Revision**	
October	**Flamingo:** **Prose** • The Interview	By the end of this lesson, students will be able to- • ascertain the kind of issues raised through someone's life and struggle. • identify women as marginalized community, the discrimination they face and their struggle against it. figure out the complexities of human relationships, impact on impressionable minds. • identify the central/main point and supporting details, etc., to build communicative competence in various lexicons of English By the end of this lesson, students will be able to- • familiarize themselves with specific background information of adolescents and adolescent fantasizing. • They would identify and make connections between similar situations in own life experiences where each of us suffers dreams are not rooted to the ground of common sense and tend to be exotic, glamorous and sophisticated. • sensitize themselves, help themselves in identifying and making connections between experiences where one finds contrast between dreams and realities of life. By the end of this lesson, students will be able to- • understand the composing style and subject matter of Robert Frost. • dive deep into the philosophical and psychology aspect of life, which again will stimulate their intellectual curiosity. • enrich their treasure of vocabulary with more words. • learn new phrases.
	• Going Places	

	Poetry • A Roadside Stand	• learn to appreciate poetry and read aloud with proper intonation. • prepare for poetic forms and adept them with the figures of speech, rhyme and rhythm. By the end of this lesson, students will be able to- • appreciate poetry and read aloud with proper intonation. • to prepare the students for poetic forms and adept them with the figures of speech, rhyme and rhythm. • realise the constraints of married life that a women experiences in a patriarchal society. Therefore, aunt builds an alternative world of freedom- a world that she longs for. • understand the form of the poem: 'Three Quatrains' (three four lined stanzas). • learning the 'Symbolism' technique used in poem where Aunt Tigers, ring, wedding band, and bright topaz have been used as symbols.
	• Aunt Jennifer's Tigers	By the end of this lesson, students will be able to- • to sensitize themselves to the issues of estranged cultural ties. • make connections between similar situations in different storylines/life experiences. • to initiate the role of an ambassador in the world ridden with racial and class differences. • to recognize the universal/global theme of inequality.
	Vistas: • Memories of Childhood	

November	**Revision**	

Syllabus for PT1	**Flamingo:** • The Last Lesson • Lost Spring • My Mother at Sixty-six **Vistas:** • The Third Level • The Tiger King Notice Writing, Letter to the Editor
Syllabus for Half Yearly/P T 2	**Flamingo:** • The Last Lesson • My Mother at Sixty-six • An Elementary School Classroom in a Slum • Lost Spring • Keeping Quiet • A Thing of Beauty • Deep Water • The Rattrap • Indigo • Poets and Pancakes **Vistas:** • The Third Level • The Tiger King • Journey to the End of the Earth • The Enemy • On the Face of It Comprehension Passages Notice Writing, Invitation, Letter to the Editor, Report Writing, Job Application + Syllabus of PT1

Syllabus for Pre-Board 1	• The Interview • Going Places • A Roadside Stand • Aunt Jennifer's Tigers • Memories of Childhood + Syllabus of PT1and PT2
Syllabus for Pre-Board 2	**Entire Syllabus**

Subject : Mathematics

Month	Chapter	Activity	Learning Outcome/ students will be able to
April	Matrices		define matrices. add, subtract and multiply the matrices. understand different type of matrices solve word problems based on matrix multiplication define symmetric and skew symmetric matrix
	Determinants		define determinants understand minor and cofactor find inverse using Matrix method understand the concept of consistency and inconsistency of system of linear equation solve system of linear equation using Matrix method
MAY	Inverse Trigonometry		range domain and principal value of inverse trigonometric functions
JULY	Continuity and differentiability	• To find analytically that if f is differentiable at x=c then it is also continuous at that point.	understand the concept of continuity and differentiability differentiate implicit, logarithmic and parametric function solve problems based on second order derivatives
	Application of derivatives	• To understand the concepts of decreasing and increasing functions. • To construct an open box of maximum volume from given rectangular sheet by cutting equal squares from each corner. • To verify that amongst all the rectangles of same perimeter, the square has the maximum area.	understand the concept of derivative as a rate measurer understand increasing and decreasing functions understand the concept of maxima and minima, first order derivative test and second order derivative test to solve simple word problems based on these test
AUGUST	Integration		understand the concept of substitution method integration of trigonometric functions

			partial fraction method, by parts integration understand definite integration properties of definite integration
	Application of integration	• To evaluate the area enclosed by the circle $x^2+y^2 = a^2$ using integration and verity it.	to calculate area under one curve and two curves
September	Differential equations	• Application of differential equations. In a bank Principal increases continuously at the rate 5% per year. In how many years Rs 1000 double itself?	understand the concept of order and degree to solve differential equations by separation of variable method.
October	Diff equation continued		to solve homogeneous differential equation to solve linear differential equation
	Vectors	• Application of dot product of vectors - To verify that the angle in a semicircle is a right angle.	to understand the concept of unit vector, section formula dot and cross product
	3-d geometry		to understand the concept of direction cosine and ratio equation of line, shortest distance between two skew lines
November	L.P.P.		to solve different linear inequality problems feasible solution under two or three inequalities
	Probability	• To explain the computation of conditional probability of given event A when event B has already occurred through an example of throwing a pair of dice.	conditional probability independent events to understand the concept of Bay's theorem probability distribution of random variable and mean
	Relation and function	• To verify that the relation R in the set L of all lines in a plane, defined by R = {(l, m): l⊥m) is symmetric but neither reflexive nor transitive • 2. To demonstrate that the function f(x) = 2x is one but not onto if f: N→N, also f(x)=2x is one-one and onto	to understand the concept of reflexive symmetric and transitive relation one-one onto functions

		if F: R→R.	
December	Revision		

PT-1   Matrices, determinants, inverse Trigonometry, continuity and differentiability, Application of derivatives

Term – 1 Exam   Matrices, determinants, inverse Trigonometry, continuity and differentiability, Application of derivatives, Integration,
                         Application of integration

PRE-BOARD   Complete Syllabus

Subject :APPLIED MATHEMATICS			
Session 2022-23			
Class: XII			
Month Wise Syllabus			
Month	**Chapter**	**Activity**	**Learning Outcome (STUDENTS WILL ABLE TO)**
APRIL	**UNIT – ALGEBRA** **- MATRIX** **- DETERMINANTS** **UNIT – NUMBER, QUALIFICATION AND NUMERICAL APPLICATION** **- NUMERICAL INEQULITIES** **- BOAT AND STREAM**		**DEFINE MATRIX** **IDENTIFY DIFFERENT KINDS OF MATRICES** **WRITE TRANSPOSE OF GIVEN MATRIX** **APPLY PROPERTIES OF INVERSE OF MATICES** **FORMULATE REAL LIFE PROBLEMS INTO SYSTEM OF SIMULTANEOUS LINEAR EQUATON AND SOLVED IT** **FIND DETERMINANTS OF SQUARE MATRIX** **DESCRIBE THE BASIC CONCEPT OF NUMERICAL INEQUALITIES** **UNDERSTAND AND WRITE NUMERICAL INEQUALITIES.** **DISTINGUISH BETWEEN UPSTREAM AND DOWNSTREAM.** **EXPRESS THE PROBLEM IN THE FORM**

			OF AN EQUATION
MAY	UNIT - NUMERICAL QUALIFICATION AND NUMERICAL APPLICATION - PIPES AND CISTERNE - RACES AND GAMES - ALLIGATION AND MIXTURE - MODULO		DETERMINES THE TIME TAKEN BY TWO OR MORE PIPES TO FILL OR EMPTY THE TANK COMPARE THE PERFORMANCE OF TWO PLAYER W.R.T. TIME, DISTANCE. UNDERSTAND THE RULE OF ALLIGATIONTO PRODUCE A MIXTURES AT A GIVEN PRICE. APPLY RULE OF ALLIGATION. APPLY ARITHEMETIC OPERATION USING MODULAR ARITHEMETIC RULERS
JULY	UNIT - CALCULUS - DIFFERENTITATION AND ITS APPLICATION - HIGHER ORDER THE DERIVATIVES - APPLICATOIN OF DERIVATIVES - MARGINAL COST AND MARGINAL REVENUE USING DERIVATIVES - INCREASING AND DECREASING FUNCTIONS - MAXIMA AND MINIMA INTEGRATION AND ITS APPLICATION - INDEFINATE INTEGRALS - DEFINE INTEGRALS AS AREA UNDER THE CURVE - APPLICATION OF INTEGRATION	PLOT THE GRAPHS OF FUNCTION ON AND STUDY THE GRAPH TO FIND OUT THE POINT OF MAXIMA/ MINIMA.	DETERMINE THE HIGHER AND SECOND ORDER DERIVATIVES UNDERSTAMD DEIFFERENTIATION OF PARAMATARIC AND IMPLICIT FUNCTIONS WRITE THE EQUATION TANGENT AND NORMAL TO A CURVE AT A GIVEN POINT FIND MARGINAL COST AND MARGINAL REVENUE DETERMINE WHEATHER A FUCNTION IS INCREASING OR DECREASING DERTERMINE CRITICAL POINT OF THE FUNCTION SOLVED APPLIED PROBLEMS UNDERSTAND AND DETERMINE INDEFINITE OF SIMPLE FUNCTION AS ANTI- DERIVATIVE EVALUATE INDEFINATE INTEGRALS OF SIMPLE ALGEBRAIC FUNCTION APPLY PROPERTIES OF DEFINTE INTEGRALS TO SOLVE THE PROBLEM INDENTIFY TEH REGIOIN REPRESENTING C.S. AND P.S GRAPHICALLY

AUGUST	**DIFFERENTIAL EQUATION AND MODELING**		**RECOGNIZE A DIFFERENTIAL EQUATION.FORMULAE DIFFERENT EQUATION. APPLY THE DIFFERENTIAL EQUATION TO SOLVE GROWTH AND DECAY MODELS**
SEPTEMBER	**PROBABILITY DISTRIBUTION** **- PROBABILITY DISTRIBUTIOIN** **- MATHEMATICAL EXPECTATION** **- VARIANCE** **- BINOMIAL DISTRIBUTION** **- POSION DISTRIBUTION** **- NORMAL DISTRIBUTION**	**PROBABILITY AND RICE ROLL SMULATION**	**UNDERSTAND THE CONCEPT OF RAMDOM VARIABLES AND ITS PROBABILITY DISTRIBUTION. APPLY ARITHEMATIC MEAN OF FREQUENCY DISTRBUTION TO FIND THE EXPECTED VALUE OF A RANDOM VARIABLE** **CALCULATE THE VARIANCE AND S.D. OF A RANDOM VARIABLE. EVALUATE THE MEAN AND VARIANCE OF POSSION DISTRIBUTION. EVALUATE THE MEAN, VARIANCE AND S.D OF BINOMIAL DISTRIBUTION. EVALUATE VALUE OF STANDARD NORMAL VARIATE**
OCTOBER	**INFERENTIAL STATISTIC** **- POLUTION AND SAMPLE** **- PARAMETER AND STATISTICS INTERFERENCE** **- T- TEST (ONE SAMPLE T- TEST AND TWO INDEPENDENT GROUPS T- TEST)** **INDEX NUMBER AND TIME BASE DATA** **- TIME SERIES** **- SECULAR TREND**	**COLLECT THE DATA ON WEATHER, PRICE,INFLATION, AND POLLUTION ANALYZE THE DATA ANDMAKE MEANINGFUL INFERENCE.** **COLLECT DATA FROM NEWSPAPERS ON TRAFFIC, SPORTS ACTIVITIES AND MARKET TRENDS AND USE EXCEL TO STUDY FUTURE TRENDS.**	**DRAW A REPRESENTATIVE SAMPLE USING AND SYSTEMATIC RANDOM SAMPLING. DIFFERENTIATE BETWEEN POLUTION AND SAMPLING EXPLAIN THE RELATIONSHIP BETWEEN PARAMETERS AND STATISTICS INTERPRET THE CONCEPT OF STATISTICAL SIGNIFICANCE AND STATISTICS INFERENCE DIFFERENTIATE BETWEEN NULL AND ALTERNATE HYPOTHESIS TEST NULL HYPOTHESIS AND MAKE INFERENCE USING T - TEST STATISTIC FOR ONE GROUP/ TWO INDEPENDENT GROUPS** **INDENTIFY TIME SERIES AS CHRONOLOGICAL DATA. AOLVE PRATICAL PROBLEMS BASED ON STAATISTICAL DATA AND INTERPRET THE RESULT UNDERSTAND THE LONG TERM TENDENCY.**

NOVEMBER	FINANCIAL MATHEMATICS - PERPETUITY, SINKING FUNDS - CALCULATION OF EMI LINEAR PROGAMNING - MATHEMATICAL FORMULATION - GRAPHICAL SOLUTION	CHECK OUT THE LOCAL NEWSPAPER AND CUT OUT EXAMPLES OF INFROMATION DEPICTED BY GRAPHS. DRAW YOUR OWN CONCLUSION FROM THE GRAPH AND COMPARE IT WITH THE ANALYSIS GIVEN IN THE REPOET. ANALYSIS OF POLUTION MIGRATION DATA - POSITIVE AND NEGATIVE INFLUENCE ON URBANIZATION	EXPLAIN THE CONCEPT OF PERPETUITY AND SINKING FUND.CALCULATE EMI USING VARIOUS METHOD. INTERPRET COST, RESIDUALAND USEFULLIFE AN ASSETFROM THE GIVEN INFORMATION FORMULAELINEAR PROGRAMMING PROBLEM. IDENTITY AND FORMULATE DIFFERENT TYPES OF LPP.
	SYLLABUS	-	
PT 1	**MATRIX , DERTERMIANTS , BOAT AND STREAM, NUMBERICAL INEQUALITIES**		
TERM 1	**MATRIX, DERTERMIANTS, NUMBER, QUALIFICATION AND NUMERICAL APPLICATION, DEFFERENTIATION AND ITS APPLICATION,INTEGRATION AND ITS APPLICATION, DIFFERENTIAL EQUATIONS AND MODELING**		
PT 2	**PROBABILITY AND INTERENTIAL STATISTIC**		
PRE BOARD	**COMPLETE SYLLABUS**		

Class: XII- (Physics)

MONTH	NAME OF THE TOPIC	ACTIVITY	LEARNING OUTCOMES
	TERM-1		
APRIL	Ch–1: Electric Charges and Fields Ch–2: Electrostatic Potential and Capacitance	1. To determine resistivity of two / three wires by plotting a graph between **potential difference versus current.**	Able to. State the mathematical definitions of Coulomb force, electric field, electrostatic potential and voltage. Able to Select relevant properties from electric charge and fields to predict the outcome of a given electrostatic interaction.
MAY	Ch–2: Electrostatic Potentialand Capacitance	2. To find resistance of a given wire / standard resistor using **metre bridge.** 3. To verify the laws of combination (series) of resistances using a metre bridge.	Able to Distinguish between static electricity and the current electricity. Able to analyse complex DC circuits qualitatively and quantitatively including applications of Ohm's law and Kirchhoff's laws. Able to describe magnetic field and field lines
JULY	Ch–3: Current Electricity Ch–4: Moving Charge and Magnetism	4. To verify the laws of combination (parallel) of resistances using a metre bridge. 5. To determine resistance of a galvanometer by **half-deflection** method and to find its figure of merit.	Able to describe how magnetism is produced Able to Solve challenging problems using interconnected resistance, capacitance, inductance
AUGUST	Ch–5: Magnetism and matter Ch–6: Electromagnetic Induction Ch–7: Alternating Current	6. To find the value of v for different values of u in case of **a concave mirror** and to find the focal length.	Able to acquires knowledge about the Practical application of EMW in our Daily life.
SEPTEMBER	Ch–8: Electromagnetic Waves Ch–9: Ray optics and Optical Instruments	7. To find the focal length of a **convex lens** by plotting graphs between u and v or between 1/u and 1/v	Able to learn about the different types of mirrors and lenses and respective ray diagrams for image formationalong the mathematical tacticsand Analysis.

OCTOBER	Ch–10: Wave Optics Ch–11Dual Nature of Radiation and Matter	8. To determine angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation	Able to differentiatebetween the ray and wave nature of a light. Able to understand the dual nature of light (Wave and Particle) along with experimental and mathematical verification.
NOVEMBER	CH–12: Atoms Ch–13: Nuclei Ch–14: Semiconductor Electronics	9. To draw the I-V characteristic curve for a p-n junction diode in forward and reverse bias.	Able to understand the Concept of atoms and nuclei with help of different models developed by different scientists (Rutherford's model, Bohr's model etc.) Able to understand the Concept of Conductors, Insulator and semiconductor with the help of Band Energy Theory. Able to understand the Classification of semiconductors along with Practical applications in PN diode.

Syllabus for P1	:	Ch–1: Electric Charges and Fields , Ch–2: Electrostatic Potential and Capacitance Ch–3: Current Electricity
Syllabus for P2/ Term 1	:	Ch–4: Moving Charge andMagnetism Ch–5: Magnetism and matter Ch–6: Electromagnetic Induction Ch–7: Alternating Current Ch–8: Electromagnetic Waves
Syllabus for Pre Board		Complete Syllabus

Subject-Chemistry (043)

Month	Unit no. / Name of unit	Activity	Learning Outcomes
April	Unit 14- Biomolecules Unit 2- Solution(Introduction)		Unit 14-Knowledge of various classes of Biomolecules and their specific roles in biosystem.
May	Unit 2- Solution. Unit 3- Electrochemistry (Introduction)		Unit 2- Knowledge of variation of colligative properties in solutions
July	Unit 3- Electrochemistry Unit 4- Chemical Kinetics Unit 8- d & F block elements	Preparation of colloidal solution.	Unit 3 – Knowledge of basic difference between electrolysis and electrochemical process. Unit 4-Knowledge of factors affecting rate of reaction and concept of Catalyst. Unit 8-Knowledge and understanding of periodic trends and general properties of d- and f- block elements.
August	Unit 9- Coordination Chemistry Unit 10- Haloalkanes and Haloarenes. Unit 11- Alcohol , phenol & ether (introduction)	Paper Chromatography Redox titration	Unit 9-Knowledge of IUPAC nomenclature,isomerism,nature of bonding,stability and applications of co-ordination compounds. Unit 10--Knowledge of IUPAC nomenclature,stereochemistry,physical and chemical properties,reaction mechanisms.
September	Revision for term 1 exams	Redox Titration	
October	Unit 11- Alcohol Phenol and ethers	Functional group detection	Unit 11- Knowledge of IUPAC name , Physical and chemical properties

			Unit 12--Knowledge of IUPAC nomenclature, physical and chemical properties,reaction mechanisms,applications of carbonyl compounds
	Unit 12 – Aldehyde ketone and carboxylic acids		
November	Unit 13- Amines Revision for pre- board 1	Salt Analysis (revision)	Unit 13-Knowledge and understanding of basic nature of amines and their application as reaction intermediates.
December	Revision for pre-board1		

P1- Unit 14 Biomolecules

P2/ Term 1- Unit 2,3,4,8,9,10,11,14

Pre Board-1 – Unit 2,3,4,8,9,10,11,12,13,14

Subject: Biology

Sr. No.	Month	Chapter Number, Name and Topics.	Learning outcomes.	Practical/ Demonstration
1	April	**Chapter-2: Sexual Reproduction in Flowering Plants** Flower structure; Development of male and female gametophytes; Pollination-types, agencies and examples; Outbreeding devices; Pollen-Pistil interaction; Double fertilization; Post fertilization events-Development of endosperm and embryo, Development of seed and formation of fruit; Special modes-apomixis, parthenocarpy, polyembryony; Significance of seed and fruit formation.	Students would be able to know about components of flower and their role in reproduction. Student would appreciate the differences between development and structure of male and female gametophyte. Students would develop basic understanding of apomixes and polyembryony.	Practical :Prepare a temporary mount to observe pollen germination Controlled pollination - emasculation, tagging andbagging. Flowers adapted to pollination by different agencies (wind, insects).. Pollination adaptations
2	May	**Chapter-3: Human Reproduction** Male and female reproductive systems; Microscopic anatomy of testis and ovary; Gametogenesis-spermatogenesis & oogenesis; Menstrual cycle; Fertilisation embryo development upto blastocyst formation, implantation; Pregnancy and placenta formation (Elementary idea); Parturition (Elementary idea); Lactation (Elementary	Students should be able to know about human reproductive organs. Student should appreciate the differences between male and female gametes. Students would analyse the events of menstrual cycle, embryonic development and parturition.	Practical: Identification of stages of gamete development, i.e., T.S. of testis and T.S. of ovary through permanent slides (from grasshopper/mice). T.S. of blastula through permanent slides (Mammalian). Meiosis in onion bud cell or grasshopper testis through permanent slides.

		idea).		
		Chapter-4: Reproductive Health Need for reproductive health and prevention of sexually transmitted diseases (STD); Birth control – Need and Methods, Contraception and Medical Termination of Pregnancy (MTP); Amniocentesis; Infertility and assisted reproductive technologies - IVF, ZIFT, GIFT (Elementary idea for general awareness).	Students should be able to compare different types of contraceptive methods. Student would be able to explain thedifferent types of ART. Students would apply knowledge to guide others about Reproductive health	Practical: Pollen germination on stigma through a permanent slide or scanning electron micrograph. Demonstration: Different types of contraceptive devices. .
3	July	**Chapter-5: Principles of Inheritance and Variation** Mendelian Inheritance; Deviations from Mentalism- Incomplete dominance, Co-dominance, Multiple alleles and Inheritance of blood groups, Pleiotrophy; Elementary idea of polygenic inheritance; Chromosome theory of inheritance; Chromosomes and genes; Sex determination - in humans, birds, honey bee; Linkage and crossing over; Sex linked inheritance - Haemophilia, Colour blindness; Mendelian	Students would be able to explain about different types of inheritance experiments and laws. Student would appreciate the differences between chromosomal and Mendelian disorders. Students would develop basic understanding of blood grouping, pleiotrophy etc.	Practical: Mendelian inheritance using seeds of different colour/sizes of any plant. Prepared pedigree charts of any one of the genetic traits such as rolling of tongue, blood groups, ear lobes, widow's peak and colour blindness.

		disorder in humans - Thalassemia; chromosomal disorders in humans; Down's syndrome, Turner's and Klinefelter's syndromes.		
		Chapter-6: Molecular Basis of Inheritance Search for genetic material and DNA as genetic material; Structure of DNA and RNA; DNA packaging; DNA replication; Central dogma; Transcription, genetic code, translation; Gene expression and regulation - Lac Operon; Genome and human genome project; DNA fingerprinting.	Students would be able to explain features of DNA and its replication Student should appreciate the differences between RNA and DNA. Students should have basic understanding of Central dogma of protein synthesis, human genome project and DNA fingerprinting.	Practical: Prepare a temporary mount of onion root tip to study mitosis Isolate DNA from available plant material such as spinach, green pea seeds, papaya, etc.
4	August	**Chapter -7 Evolution**	Students would be able to explain various theories of evolution and evidences of evolution . Student should appreciate the contribution of Darwins natural selection theory Students should have basic understanding of evolution of plants and vertebrate ,specially humans	Practical Flash cards models showing examples of homologous and analogous organs.
5	September	**Chapter-8: Human**	Students should be able to	

		Health and Diseases Pathogens; parasites causing human diseases (Malaria, Filariasis, Ascariasis, Typhoid, Pneumonia, common cold, amoebiasis, ring worm); Basic concepts of immunology - vaccines; Cancer, HIV and AIDs; Adolescene, drug and alcholol abuse.	know about different types of pathogens,diseases caused by them their symptoms , treatment and prevention. Student should appreciate the differences between different types of drugs Sedatives , Hallucinogens, Stimulants and their effects. Students would develop basic understanding of cancer, malaria and HIV	Common disease causing organisms like *Ascaris, Entamoeba, Plasmodium*, any fungus causing ringworm through permanent slides, models or virtual images or specimens. Comment on symptoms of diseases that they cause.
		Chapter-10: Microbes in Human Welfare In household food processing, industrial production, sewage treatment, energy generation and as biocontrol agents and biofertilizers. Antibiotics; production and judicious use.	Students should be able to know about different types of microbes and their use in daily life. Student should appreciate the differences between primary and secondary treatment of effluent. Students should have basic understanding of microbial application in industries.	Demonstration: Fermented foods.
5	october	**Chapter-11: Biotechnology - Principles and Processes** Genetic engineering (Recombinant DNA technology).	Students should be able to know about different steps of biotechnology. Student should appreciate the differences between endonuclease and exo-nuclease enzymes. Students should have basic understanding of down streaming processing.	Practical: DNA extraction from papaya cell. Demonstration: Cloning vectors.
		Chapter-12: Biotechnology and its Application Application of Biotechnology in health	Students should be able to know about application of biotechnology in different fields.	

		and agriculture: Human insulin and vaccine production, gene therapy; Genetically modified organisms-Bt crops; Transgenic Animals; biosafety issues, biopiracy and patents.	Student should appreciate the differences between bio piracy and bio patent. Students should have basic understanding of transgenic animals and their use in biotechnology.	
6	November	**Chapter-13: Organisms and Populations** Organisms and environment: Habitat and niche, Population and ecological adaptations; Population interactions-mutualism, competition, predation, parasitism; Population attributes growth, birth rate and death rate, age distribution.	Students should be able to know about different types of species interactions. Student should appreciate the differences between interspecific and intraspecific competition. Students should have basic understanding of organisms and their habitat.	Practical: Models specimen showing symbolic association in root modules of leguminous plants, Cuscuta on host, lichens.
		Chapter 14-Ecosystem	Students should be able to explain the ecosystem and its components . They would be able to know about different trophic levels ,Producers, Consumers and decomposers and their role in the ecosystem . Student would compare the Pyramids of Number, Biomass and Energy . Students would evaluate Primary and Secondary succession	Practical: Study the plant population density by quadrat method. Study the plant population frequency by quadrat method . Demonstration: Adaptations in plants and animals in aquatic and xeric conditions
		Chapter-15: Biodiversity and its Conservation Concept of biodiversity; patterns of biodiversity;	Students should be able to know about different types of biodiversity pattern. Student should appreciate	Demonstration: Extinct and endangered species.

| | | importance of biodiversity; loss of biodiversity; biodiversity conservation; hotspots, endangered organisms, extinction, Red Data Book, biosphere reserves, national parks, sanctuaries and Ramsar sites. | the differences between endangered and extinct species.

Students should have basic understanding of importance of biodiversity and causes of biodiversity loss. | |

Split up of the Syllabus

SESSION: 2022-23

Subject: Biology (Class- 12)

Sr. No	Month	Name of Chapter
1	PT 1	Unit 6 Chapter-2: Sexual Reproduction in Flowering Plants Chapter-3: Human Reproduction. Chapter-4: Reproductive Health. Unit 7 Chapter-5: Principles of Inheritance and Variation. Chapter-6: Molecular Basis of Inheritance
2	PT 2 /Term 1	Chapter 1 to 10 Unit 8 Chapter 7 :Evolution Chapter-8 : Human Health and Diseases. Chapter-10: Microbes in Human Welfare.
3	Preboard Exam	FULL COURSE Chapter 1to 16 Unit 9 Chapter-11: Biotechnology - Principles and Processes. Chapter-12: Biotechnology and its Application. Unit 10 Chapter-13: Organisms and Populations. Chapter 14 : Ecosystem Chapter-15: Biodiversity and Conservation.

Optional Subjects

Class: XII- (Physical Education)

MONTH	NAME OF THE TOPIC
APRIL	Unit I Management of Sporting Events
MAY	Unit II Children & Women in Sports
JULY	Unit III Yoga as Preventive measure for Lifestyle Disease Unit IV Physical Education & Sports for CWSN (Children with Special Needs - Divyang)
AUGUST	Unit V Sports & Nutrition Unit VI Test & Measurement in Sports
SEPTEMBER	Unit VII Physiology & Injuries in Sports
OCTOBER	Unit VIII Biomechanics & Sports
NOVEMBER	Unit IX Psychology & Sports
December	Unit X Training in Sports

Syllabus for P1	:	Unit I Management of Sporting Events Unit II Children & Women in Sports Unit III Yoga as Preventive measure for Lifestyle Disease Unit IV Physical Education & Sports for CWSN (Children with Special Needs - Divyang)
Syllabus for P2/ Term 1	:	Unit I Management of Sporting Events Unit II Children & Women in Sports Unit III Yoga as Preventive measure for Lifestyle Disease Unit IV Physical Education & Sports for CWSN (Children with Special Needs - Divyang) Unit V Sports & Nutrition Unit VI Test & Measurement in Sports
Syllabus for Pre Board		Complete Syllabus

Economics
Section A: Introductory Macro Economics
Section B: Indian Economic Development

Month		Name of the Topic	Learning Outcome
April	Unit -2	**Section A – Introductory Macro Economic Theory** Money & Banking Money-meaning and supply of money Money creation by Commercial Banks	Meaning of money and money supply, process of credit creation by commercial banks Various functions of the central bank.
May	Unit -4	Government Budget and the Economy	Meaning, Objectives, components of government budget.
July	Unit -1.	National Income Methods of Calculating National Income	Measurement of national income by three methods. Circular flow of income , basic concepts of Macro Economics
August	Unit -5.	Balance of Payment Foreign Exchange rate-Meaning' Types & determination of Foreign Exchange rate Balance of Payments B.O.P Account and B.O.P Deficit	B.O.P,B.O.T, components of B.O.P account. B.O.P deficit Types of exchange rate, determination of exchange rate----
	Unit -6.	**Section B: Indian Economic Development** Development Experience (19947-90) and Economic Reforms Since 1991 Ch-1. Indian Economy on the eve of Independence Ch-2. Five years Plan in India-Goals achievements Ch-3. Agriculture, Industry & Trade (1950-1990) Ch-4. Economic Reforms since 1991: New Economic Policy..	Indian economy under British rule-Agriculture and industrial sector, foreign trade, occupational structure, demographic conditions, infrastructure Objectives of indian planning Features problems and policies of Indian Agriculture Industrial policy, types and programmes., importance of foreign trade, Need for economic reforms,
September	Unit -7	Current Challenges Facing Indian Economy Ch-5. Human Capital Formation in India	role of human capital formation in economic development
October	Unit -3.	Determination of Income and Employment	AD and components, income determination and multiplier
		Ch-6. Rural Development	institutional sources of rural credit

| Novem ber | Unit -7 | Current Challenges Facing Indian Economy
Ch-7. Employment & Unemployment
Ch-8. Environment & Sustainable Development | Types and problems of employment strategies of sustainable development |
| | Unit -8 | Ch-9. Development Experience of India,Pakistan & China – A comparative Study | Development strategies of India, China and Pakistan |

Syllabus for P1   :   Section-A : Unit-2 & 4

Syllabus for Half yearly   :   Section-A   Unit-1, 2, 4, 5   Section-B. Unit-6: Ch- 1 to 4

Pre-Board   :   Complete Syllabus

Subject: Informatics Practices

Month	Chapter	Learning Outcome
April	**Unit 2**: Database Query using SQL: MySQL Revision of topics done in class XI. Single row and aggregate functions	Create, modify, delete databases and accessing selective data using predefined functions from database. Able to create & manipulate relational database.
May	**Unit 2**: Querying using Group by, order by.	Accessing data from table and printing it in some order.
July	**Unit 1** : Data Handling using Pandas I Data Visualization: Purpose of plotting, drawing and saving of plots using Matplotlib (line plot, bar graph, histogram). Customizing plots: adding label, title, and legend in plots. Project	Dealing with data structures of Python – Series and Data Frames Visualize data using relevant graphs
August	**Unit 1 : Import/Export data between CSV Files and Pandas.** **Periodic Test I**	Ability to create proper back-end data structure for storing data.
September	Revision, **Term 1 Exam., Practical exam.**	Recall
October	Unit 3: Introduction to Computer Networks : Introduction, Types of network & Network Devices, Topology, Internet and its applications, websites and web browsers. **Project**	Categorization, identification and purpose of network & its devices. Usage of various web applications. Customization of a web browser as per one's needs.
November	Unit 4: Societal Impacts Project	Identification of software categories. Awareness about health concerns while using technology. Development of Python programs.
December	Revision	Recall

	Project	
January	**Board Practical &** Revision	Evaluation

Syllabus for P1	**Unit 1, 2 – CHAPTER 1, 2, 4**
Syllabus for Term 1	**Unit 1 & 2 – CHAPTERS – 1, 2, 4**
Syllabus for Pre-Board I	**Whole Syllabus –** **Unit 1, 2, 3 & 4 – CHAPTERS – 1,2,4,5,6**

<u>**Text Book :**</u> **Informatics Practices – A Textbook for class XII published by NCERT.**
<u>**Reference Book :**</u> **Informatics Practices for class XII written by Preeti Arora, Published by Sultan Chand**

Subject :PSYCHOLOGY

Month	Chapter	Activity	Learning Outcome
April	Ch – 3. Meeting Life Challenges TEST: DBDA	Activity on Stress	· Students would grasp the concept of stress and how to deal with it
May	TEST: DBDA Case Profile explained andgiven to work during the summer break		· Practical understanding of making a Psychological case profile and writing report for the Psychometric test for practical
July	Ch – 1. Intelligence Ch – 2. Self & Personality	Activity on Individual Differences	· The various factors influencing intelligence and its

		Activity on Self Perception	range will be clear · Various theories of personality, as well asits assessment, will be learned
August	Ch – 2. Self & Personality (continued) Ch – 4. Psychological Disorders	Activity on Psychological Disorders	· Various psychological disorders and their symptoms would be clear to students
epteber	Ch – 5. Therapeutic Approaches Ch – 7. Social Influence (introduced)	Role Play as a Therapist /Mock interview Activity 1 on Social Influence	· Psychological therapies and the principles that govern them will be known · Students will learn about the influence of others on their behavior.
Octobe r	Ch – 7. Social Influence (continued) Test: Tests: (SPM and HSPQ) (SAS and Practical FileWork)	Activity 2 on Social Influence	· Students will learn to conduct and interpret various psychometric tests to perfection.
Novem ber	Ch – 6. Attitude and Social Cognition	Discussion and brainstorming session on Prejudice	· Students will learn how their attitudes are formed and changed

Syllabus for   P1   :   Chapter No. 1 ,2, 3

Syllabus for Half yearly Examination :   Chapter Nos. 1 , 2 , 3 , 4 , 5

Pre-Board – I   :   Complete Syllabus (1,2,3,4,5,6,7)

Pre-Board – II   :   Complete Syllabus (1,2,3,4,5,6,7)

PAINTING (Code No. 049)

Fine Arts-Painting (Theory)

Month	Name of the Topic	Activity	Learning Outcome
April Unit -1	The Rajasthani and Pahari Schools of Miniature Painting (16th Century A.D. to 19th Century A.D.) (1) The Origin and Development of Miniature Painting inIndia	• Identify the Colours and Make the Difference Charts	• To familiarize students with various styles and modes of art expressions from different parts of India. This would enrich their vision and enable them to appreciate and develop an aesthetic sensibility to enjoy the beauty of nature and life.
May	(2) The Rajasthani Schools of Miniature Painting (3) The Pahari Schools of Miniature Painting	• Identify the Picture of different Art Style	
July Unit -2	The Mughal and Deccan Schools of Miniature Painting (16th Century A.D. to 19th Century A.D.) The Origin and Development of Mughal and Deccan Schools	• Develop PPT	
Aug ust	(4) The Mughal School of Miniature Painting (5) The Deccan School of Miniature Painting	• To Document difference between Painting & Sculpture	
September Unit-3	The Bengal School of Painting and the Modern trends in Indian Art (About the beginning to mid of the 20th Centuary) National Flag of India and the Symbolic significance of its forms and the colours. (6) Introduction to the Bengal School of Painting (7) Study of the Painting of Bengal School	• Develop Charts	• The students will also have an opportunity to observe and study the evolution of its mulations and synthesis with other style and the rise of an altogether new style. The students will be made aware f art as a human experience.
Oct ober	(8) Contribution of Indian artists in the Struggle for National Freedom Movement (9) Evolution of the Indian National Flag	• Identify the Picture of Different Art Styles	

November	(10) The Modern Trends in Indian Art
	(11) Paintings of the Contemporary (Modern)
	     Indian Artists
	(12) Graphic prints of the Contemporary (Modern)
	     Indian Artists
	(13) Sculptures of the Contemporary (Modern)
	     Indian Artists
		• Develop PPT Identify the Picture of different Art Style	

Term Wise Syllabus Painting Class 12

P1:	The Rajasthani and Pahari Schools of Miniature Painting
Half Yearly:	The Rajasthani and Pahari Schools of Miniature Painting The Mughal and Deccan Schools of Miniature Painting
Pre- Board	The Indian National Flag and the Bengal School of Painting The Modern Trends in Indian Art
Annual Exam	Complete Syllabus

Subject: **FINE ARTS-PAINTING (Practical) Class 12th**

Month	Name of the Topic
April	Nature and Object Study
May	Nature and Object Study
July	Nature and Object Study
August	Painting-Composition
September	Painting-Composition
October	Painting-Composition
November	Painting-Composition
December	Portofolio Assessment
January	Portofolio Assessment
February	Portofolio Assessment

Subject- Home Science (064)

Month	Name of the Topic	Activity	Learning outcome
April	Unit III: Human Development and Family Studies Chapter 7: Early Childhood Care and Education Chapter 9: Special Education and Support Services Chapter 10: Management of Support Services, Institutions .	Design poster to communicate socially relevant message.	• Students will understand the basic principles of Early Childhood Care and Education (ECCE)
May	Unit V: Resource Management Chapter 20 Consumer Education and Protection	Prepare report for consumer redressal	• Students will know the basic concept of Consumer Education and Protection
July	Unit IV: Fabric And Apparel Chapter 11: Design for Fabric And Apparel Chapter 12: Fashion Design And Merchandizing	Preparation of article using applied textile design technique	• Children will be able to recognize the elements the constitute design
August	Unit I: Work, Livelihood and Career (Chapter 1) Unit II: Nutrition, Food Science and Technology Chapter 2: Clinical Nutrition and Dietetics	Modification of normal diet according to physiological state	• Children will be able to understand the concept of quality of life • Students will be able to understand and describe the significance of clinical nutrition
September	Unit II: Nutrition, Food Science and Technology Chapter 3: Public Nutrition and Health Chapter 5: Food Processing and Technology	Preparation of Supplementary Food Prepare and evaluate Processed Food Product	• Students will understand the significance of public nutrition
October	Unit II: Nutrition, Food Science and Technology Chapter 6: Food Quality and Safety Unit V Resource Management Chapter 17: Hospitality Management	Test of Food Adulteration	• Students will know about national and international food standards and their role in ensuring food quality and safety
November December	Unit V: Resource Management Chapter 18: Ergonomics and Designing of Interior and Exterior Spaces Chapter 19: Event Management Unit VI Communication and Extension	Prepare a case study of PR agency	• Students will be able to explain the concept of interior and exterior space design • Students will understand the importance of communication for social change and development