

ENGLISH CORE (301)

Month	No. of Days	No. of Periods	Topics to be covered & Sub- Topics to be covered	Skills Covered	Activities/Projects/Practical / Specific Assessment Tools
April	23	20	- The Last Lesson - The Third level - My Mother at Sixty-Six - Letter Writing (Editorial, Job Application Resume & Bio-Data)	Builds empathy, critical thinking, moral values, communication, decision-making, and sensitivity towards the elderly.	Write a short note on the history of the Franco-Prussian war in relation to the chapter "The Last Lesson".
May	20	15	- Lost Spring - The Tiger King - Keeping Quiet - Formal/ Informal invitation and reply	Enhances imagination, aesthetic sense, emotional awareness, appreciation of nature, poetic devices, and critical thinking skills.	Interact with the underprivileged children of your society and write down your experience in 200 words.
June	11	10	- A Thing of Beauty - Deep water - Notice - Rattrap - The Enemy	Cultivates aesthetic sense, imagination, appreciation of nature, emotional insight, poetic analysis, critical thinking, and creativity.	Prepare a write up of 150 words on the topic "The Tiger King is replete with irony that reveals the follies of autocratic and wilful rulers who flout all laws and bend them to suit their selfish interests."
July	26	15	- The Enemy(contd.) - Journey to the end of the Earth - Indigo - Article and Report Writing REVISION	Promotes ethical reasoning, empathy, human values, critical thinking, cultural sensitivity, moral dilemma analysis, and compassion.	Prepare a synopsis about World War 2 in relation to the chapter "The Enemy".
PERIODIC TEST-I/UNIT TEST-I			The Last Lesson, My mother at Sixty six, The Third Level, The Lost Spring, Letter Writing, Comprehension		
August	22	20	- On the Face of It - Roadside Stand - Unseen Passage(Factual)	Develops social awareness, empathy, critical thinking, poetic appreciation, sensitivity to rural issues, and emotional understanding.	You are the manager of In lingual language institute. Draft an advertisement giving all necessary details about the institute for the Admission of students.
September	23	12	- Poets and Pancakes - Aunt Jennifer's Tigers - The Interview REVISION	Enhances humor appreciation, observation, critical thinking, cultural insight, narrative skills, workplace dynamics, and media industry awareness.	Analyze gender roles, oppression, freedom, and symbolism in <i>Aunt Jennifer's Tigers</i> , highlighting personal strength and resilience.
MID – TERM EXAM			All the chapters (including writing skills) taught from April to August. MID TERM PRACTICAL EXAM		
October	18	16	1. Memories of	Encourages imagination,	Prepare a write up of 150

			Childhood 2. Article Writing	ambition, self-awareness, reality vs fantasy	words on the topic “People who suffer from disabilities
				distinction, critical thinking, emotional insight, and aspirational understanding.	must always look at the bright side of things and adapt to the Reality of life bravely.”
November	23	15	Going Places Revision	Encourages imagination and self-awareness	
PREBOARD - 1			Complete Syllabus		
December	20	-	Sample Paper, Revision		
January	22		Sahodaya Pre board Board Practical Examination	Complete syllabus	
February	15	-	BOARD EXAMINATION		

QUESTION PAPER PATTERN		
Sl. No.	Sections	Marks Allotted
1	Section - A: Reading Skills	22 Marks
2	Section - B: Creative Writing Skills	18 Marks
3	Section - C: Literature	40 Marks
Total Marks		80 Marks
5	Internal Marks	20 Marks
Grand Total		100

Question Paper Design for Class XII English (Core) [Code: 301]

SECTION	COMPETENCIES	TOTAL MARKS
Section A: Reading Skills	Conceptual understanding, decoding, Analyzing, inferring, interpreting, appreciating, literary, conventions and vocabulary, summarizing and using appropriate format/s.	12+ 10 =22 marks
Section B: Creative Writing Skills	Conceptual Understanding, application of rules, Analysis, Reasoning, appropriate style and tone, using appropriate format and fluency, inference, analysis, evaluation and creativity	4+4+5+5=18marks
Section C: Literature	Recalling, reasoning, critical thinking, appreciating literary convention, inference, and analysis, creativity with fluency.	6marks, 4marks 6marks, 2*5=10marks 2*2=4marks 5marks, 5 marks
	TOTAL	80
Internal Assessment	Assessment of Listening and Speaking Skills Listening & Speaking	10 5+5
	Project Work	10
	GRAND TOTAL	100

PHYSICS (042)

Month	No. of Days	No. of Periods	Topics to be covered & Sub- Topics to be covered	Skills Covered	Activities/Projects/Practical / Specific Assessment Tools
April	23	23	<u>Chapter-1: Electric Charges and Fields</u> Electric charges, Conservation of charge, Coulomb's law-force between two- point charges, forces between multiple charges; superposition principle and continuous charge distribution. Electric field, electric field due to a point charge, electric field lines, electric dipole, electric field due to a dipole, torque on a dipole in uniform electric field. Electric flux, statement of Gauss's theorem and its applications to find field due to infinitely long straight wire, uniformly charged infinite plane sheet and uniformly charged thin spherical shell (field inside and outside).	Understanding electric charge, conservation of charge, analyzing forces between charges and understanding that like charges repel and opposite charges attract. Applying mathematical equations like coulombs law, gauss law and problem solving related to electric force and electric field.	<u>ACTIVITY-1</u> To assemble a household circuit comprising three bulbs, three (on/off) switches, a fuse and a power source.
May	24	20	<u>Chapter-12: Atoms</u> Alpha-particle scattering experiment; Rutherford's model of atom; Bohr model of hydrogen atom, Expression for radius of nth possible orbit, velocity and energy of electron in nth orbit, hydrogen line spectra (qualitative treatment only). <u>Chapter-13: Nuclei</u> Composition and size of nucleus, nuclear force Mass-energy relation, mass defect; binding energy per nucleon and its variation with mass number; nuclear fission, nuclear fusion. <u>Chapter-14: Semiconductor Electronics: Materials, Devices and Simple Circuits</u> Energy bands in conductors, semiconductors and insulators (qualitative ideas only) Intrinsic and extrinsic semiconductors- p and n type, p-n junction	The skill covered in atoms is encompassing understanding atomic structure and its model. It interacts with mathematical skills and problem solving. The context of nuclei covers the skill related to understanding the structure, properties and behaviour of atomic nuclei and concepts like nuclear force, binding energy.	

June	11	10	<u>Chapter-14: Semiconductor Electronics: Materials, Devices and Simple Circuits CONTINUE...</u> Semiconductor diode - I-V characteristics in forward and reverse bias, application of junction diode -diode as a rectifier.	Understanding semiconductor, circuit design and I-V characteristics. Learning of pn junction diode and its practical uses.	<u>ACTIVITY-2</u> To identify a diode, an LED, a resistor and a capacitor from a mixed collection of such items. <u>PRACTICAL-1</u> To draw the I-V characteristic curve for a p-n junction diode in forward and reverse bias.
July	26	15	<u>Chapter-2: Electrostatic Potential and Capacitance</u> Electric potential, potential difference, electric potential due to a point charge, a dipole and system of charges; equipotential surfaces, electrical potential energy of a system of two-point charges and of electric dipole in an electrostatic field. Conductors and insulators, free charges and bound charges inside a conductor. Dielectrics and electric polarization, capacitors and capacitance, combination of capacitors in series and in parallel, capacitance of a parallel plate capacitor with and without dielectric medium between the plates, energy stored in a capacitor (no derivation, formulae only). <u>Chapter-3: Current Electricity</u> Electric current, flow of electric charges in a metallic conductor, drift velocity, mobility and their relation with electric current; Ohm's law, V-I characteristics (linear and non-linear), electrical energy and power, electrical resistivity and conductivity, temperature dependence of resistance, Internal resistance of a cell, potential difference and emf of a cell, combination of cells in series and in parallel, Kirchhoff's rules, Wheatstone bridge. REVISION	Studying electrostatic potential and capacitance build skills in understanding like electric potential and charge storage including problem solving and mathematical calculation. Understanding electric current develop skills like basic electrical concepts, circuit analysis, safety protocols and applying knowledge to repair electric system.	<u>PRACTICAL-2</u> To find resistance of a given wire / standard resistor using metre bridge. <u>ACTIVITY-3</u> To assemble the components of a given electrical circuit <u>PRACTICAL-3</u> To determine resistivity of two / three wires by plotting a graph for potential difference versus current.

UNIT TEST-I			Chapter- 1, 12, 13,14		
August	22	20	<u>Chapter-4: Moving Charges and Magnetism</u> Concept of magnetic field, Oersted's experiment. Biot - Savart law and its application to current carrying circular loop. Ampere's law and its applications to infinitely long straight wire. Straight solenoid (only qualitative treatment), force on a moving charge in uniform magnetic and electric fields. Force on a current-carrying conductor in a uniform magnetic field, force between two parallel current-carrying conductors- definition of ampere, torque experienced by a current loop in uniform magnetic field; Current loop as a magnetic dipole and its magnetic dipole moment, moving coil galvanometer- its current sensitivity and conversion to ammeter and voltmeter.	Understanding moving charges and magnetism skills like foundation for electromagnetism, understanding magnetic forces, problem-solving skills, conceptual clarity.	<u>ACTIVITY-4</u> 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.
			<u>Chapter-5: Magnetism and Matter</u> Bar magnet, bar magnet as an equivalent solenoid (qualitative treatment only), magnetic field intensity due to a magnetic dipole (bar magnet) along its axis and perpendicular to its axis (qualitative treatment only), torque on a magnetic dipole (bar magnet) in a uniform magnetic field (qualitative treatment only), magnetic field lines. Magnetic properties of materials- Para-, dia- and ferro – magnetic substances with	Studying magnetism and matter builds skills in understanding magnetic field , forces and magnetic material including problem solving skills	<u>PRACTICAL-4</u> To verify the laws of combination (series) of resistances using a metre bridge. OR To verify the laws of combination (parallel) of resistances using a metre bridge. <u>PRACTICAL-5</u> To determine resistance of a galvanometer by half-deflection method and to find its figure of merit.

			examples, Magnetization of materials, effect of temperature on magnetic properties. <u>Chapter-6: Electromagnetic Induction</u> Electromagnetic induction; Faraday's laws, induced EMF and current; Lenz's Law, Self and mutual induction.	Studying electromagnetic induction build skills in understanding emf and generation of current with change in magnetic field , generator, transformer.	
September	23	12	<u>Chapter-7: Alternating Current</u> Alternating currents, peak and RMS value of alternating current/voltage; reactance and impedance; LCR series circuit (phasors only), resonance, power in AC circuits, power factor, wattless current. AC generator, Transformer. <u>Chapter-8: Electromagnetic Waves</u> Basic idea of displacement current, Electromagnetic waves, their characteristics, their transverse nature (qualitative idea only). Electromagnetic spectrum (radio waves, microwaves, infrared, visible, ultraviolet, X- rays, gamma rays) including elementary facts about their uses. REVISION	Understanding alternating current develops skill like AC circuit analysis , power in ac circuit, transformer , understanding AC fundamentals and problem solving skills. Understanding electromagnetic waves improves the skills like understanding the nature, speed spectrum of em waves and application of em waves in daily life .	<u>PRACTICAL-6</u> To determine angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation. <u>PRACTICAL-7</u> To determine refractive index of a glass slab using a travelling microscope.
MID – TERM EXAM			Chapter- 1,2,3,4,5,6,12,13,14 MID TERM PRACTICAL EXAMINATION		
October	18	16	<u>Chapter-9: Ray Optics and Optical Instruments</u> Ray Optics: Reflection of light, spherical mirrors, mirror formula, refraction of light, total internal reflection and optical fibers, refraction at spherical surfaces, lenses, thin lens formula, lens maker's formula, magnification, power of a lens, combination of thin lenses in contact, refraction of light through a prism. Optical instruments: Microscopes and astronomical telescopes (reflecting and	Studying ray optics and optical instruments students increase their skills like in total internal reflection and optical fibre and its application in daily life, prism and dispersion of light with its practical application.	<u>ACTIVITY-5</u> To observe refraction and lateral deviation of a beam of light incident obliquely on a glass slab. <u>ACTIVITY-6</u> To observe diffraction of light due to a thin slit. <u>PRACTICAL-8</u> To find the value of v for different values of u in case of a concave mirror and to find the

			refracting) and their magnifying powers. Chapter-10: Wave Optics Wave optics: Wave front and Huygen's principle, reflection and refraction of plane wave at a plane surface using wave fronts. Proof of laws of reflection and refraction using Huygen's principle. Interference, Young's double slit experiment and expression for fringe width (No derivation final expression only), coherent sources and sustained interference of light, diffraction due to a single slit, width of central maxima (qualitative treatment only).	Wave optics covers the skills related to understanding the wave nature of light, including concepts of interference, diffraction and polarization. It covers the skill of interference of thin film, optical resolution and application of wave optics to the real world .	focal length.
November	23	15	Chapter-11: Dual Nature of Radiation and Matter Dual nature of radiation, Photoelectric effect, Hertz and Lenard's observations; Einstein's photoelectric equation-particle nature of light. Experimental study of photoelectric effect Matter waves-wave nature of particles, de-Broglie relation REVISION	This chapter encompassing both wave and particle nature of light and develop skills like understanding fundamental physics concept , problem solving and critical thinking.	PRACTICAL-9 To find the focal length of a convex lens by plotting graphs between u and v or between $1/u$ and $1/v$.
PRE-BOARD-1			COMPLETE SYLLABUS		
December	20	15	SAMPLE PAPER DISCUSSION AND REVISION		
January	22		SAHODAYA PRE BOARD AND BOARD PRACTICAL EXAMINATION	COMPLETE SYLLABUS	
February			CBSE BOARD EXAMINATION COMPLETE SYLLABUS		

QUESTION PAPER PATTERN		
Sl. No.	Sections	Marks Allotted
1	Section-A : very short answer question (MCQ AND A & R)	1×16= 16 Marks
2	Section-B : Short answer question	2×5= 10 Marks
3	Section-C : Long answer question-I	3×7= 21 Marks
4	Section- D : Case based question	4×2= 8 Marks
5	Section- E : Long answer question-II	5×3= 15 Marks
Total Marks		70 Marks
6	Practical Marks	30 Marks
Grand Total		100 Marks

PRACTICAL EVALUATION SCHEME		
Sl. No.	Sections	Marks Allotted
1	Two experiments one from each section	7+7 Marks
2	Practical records (experiment and activities)	5 Marks
3	One activity from any section	3 Marks
4	Investigatory project	3Marks
5	Viva on experiments, project and activities	5Marks
GRAND TOTAL		30 Marks

QUESTION PAPER DESIGN(THEORY)		
Sl. No.	Sections	Marks Allotted
1	Remembering: memory based questions by recalling facts, term , basic concepts and answers.	27 Marks
2	Applying: problems solving related to new situations by applying previous knowledge, concepts and facts.	22 Marks
3	Analyzing: Examine and break information into parts by identifying motives or causes. Evaluating: Present and defend opinion by making judgement about information and quality of work based a set of criteria. Creating: Competency based question solving by compiling information together in a different way and proposing new Solution.	21 Marks
TOTAL MARKS		70 Marks
PRACTICAL		30 Marks
GROSS TOTAL		100 Marks

CHEMISTRY (043)					
Month	No. of Days	No. of Periods	Topics to be covered & Sub- Topics to be covered	Skills Covered	Activities/Projects/Practical/ Specific Assessment Tools
April	23	23	<u>UNIT 1: SOLUTIONS:</u> - Types of solutions, Expression of concentration of solutions of solids in liquids, - Solubility of gases and solids in liquids, factors affecting solubility - Raoult's law, - Colligative properties - relative lowering of vapor pressure, elevation of boiling point, depression of freezing point, osmotic pressure, determination of molecular masses using colligative properties, - Abnormal molecular mass - Van't Hoff factor	- Remembering and understanding of concepts: Henry's law; Raoult's law - Application of numerical ability: Colligative properties, concentration terms - Analyzing the concepts and applying the acquired knowledge and facts: Abnormal molecular mass and Van't Hoff factor	Mind map on subtopics of Solution Chapter, Quiz on the topic of Solution
May	20	20	<u>UNIT 10: BIOMOLECULES</u> - Carbohydrates - Classification (aldoses and ketoses), monosaccharides (glucose and fructose), D-L configuration oligosaccharides (sucrose, lactose, maltose), polysaccharides (starch, cellulose, glycogen); Importance of carbohydrates. - Proteins -Elementary idea of - amino acids, peptide bond, polypeptides, proteins, structure of proteins - primary, secondary, tertiary structure and quaternary structures (qualitative idea only), denaturation of proteins; enzymes. - Hormones - Elementary idea excluding structure. - Vitamins - Classification and functions. - Nucleic Acids: DNA and RNA <u>UNIT 4: d AND f BLOCK ELEMENTS:</u> - General introduction,	- Remembering and Understanding: Structure of glucose, denaturation of protein, Types of linkages, Vitamin deficiency diseases, Structure of proteins, Structure of DNA and RNA - Analyzing and applying the data: Chemical reactions of glucose. - Comparing and contrasting between monosaccharides and polysaccharides; fibrous and globular proteins etc.	INVESTIGATORY PROJECT

			electronic configuration, occurrence and characteristics of transition metals, • General trends in properties of the first-row transition metals – metallic character, ionization enthalpy, oxidation states, ionic radii, color, catalytic property, magnetic properties, interstitial compounds, alloy formation, • Preparation and properties of $K_2Cr_2O_7$ and $KMnO_4$. • Lanthanides - Electronic configuration, oxidation states, chemical reactivity and lanthanide contraction and its consequences. • Actinides - Electronic configuration, oxidation states and comparison with lanthanides	• Remembering and Understanding: Preparation of compounds, electronic configuration, Lanthanide contraction. • Analyzing, Applying and Evaluating: Properties of d and f block elements.	
June	11	10	<u>UNIT 3: CHEMICAL KINETICS</u> • Rate of a reaction (Average and instantaneous), • Factors affecting rate of reaction: concentration, temperature, catalyst; • Order and molecularity of a reaction • Rate law and specific rate constant, • Integrated rate equations and half-life (only for zero and first order reactions), • Concept of collision theory (elementary idea, no mathematical treatment), • Activation energy, Arrhenius equation.	• Application of numerical ability: Rate of the reaction, rate constant, Activation energy and Arrhenius equation • Applying the acquired knowledge and analyzing the facts: Order, Molecularity, • Remembering and Understanding: Factors affecting the rate of reaction, Collision Theory	
July	26	15	<u>UNIT 2: ELECTROCHEMISTRY:</u> • Redox reactions, • EMF of a cell, standard electrode potential, Nernst equation and its application to chemical cells. • Relation between Gibbs energy change and EMF of a cell, • Conductance in electrolytic solutions, specific and molar conductivity, variations of conductivity with concentration	• Application of numerical ability: Nernst Equation, Equivalent and Molar conductance, EMF of the cell. • Analyzing the data and making inferences: Variation of conductivity with concentrations, Electrochemical Series • Demonstrate understanding of the facts by organizing, comparing and interpreting the main ideas: Electrolysis	Determination of concentration/ molarity of $KMnO_4$ solution by titrating it against a standard solution of: 1. Oxalic acid, 2. Ferrous Ammonium Sulphate (Students will be required to prepare standard solutions by weighing themselves).

			- Kohlrausch's Law electrolysis and law of electrolysis (elementary idea), - Dry cell-electrolytic cells and Galvanic cells, lead accumulator, fuel cells, - Corrosion	Remembering and understanding of concepts: Kohlrausch's Law, Types of cells, Corrosion	
UNIT TEST-I			UNIT 1, 3, 4 AND 10		
August	22	20	<u>UNIT 6: HALOALKANES & HALOARENES</u> - Haloalkanes: Nomenclature, nature of C–X bond, physical and chemical properties, optical rotation mechanism of substitution reactions. - Haloarenes: Nature of C–X bond, substitution reactions (Directive influence of halogen in monosubstituted compounds only). - Uses and environmental effects of - dichloromethane, trichloromethane, tetrachloromethane, iodoform, freons, DDT <u>UNIT 9: AMINES</u> - Amines: Nomenclature, classification, structure, methods of preparation, physical and chemical properties, uses, identification of primary, secondary and tertiary amines. - Diazonium salts: Preparation, chemical reactions and importance in synthetic organic chemistry	- Demonstrate understanding of facts and ideas: Nomenclature, Nature of C-X bond, uses and environmental effects, Name reactions - Applying acquired knowledge, facts, techniques: Properties: Physical and chemical, mechanism of substitution reaction. - Critical thinking ability to analyze the mechanism Of reaction.	Tests for the alcohol, aldehyde and ketone functional groups present in organic compounds. Tests for the amino (primary), carboxylic acid, phenol functional groups present in organic compounds

September	23	12	<u>UNIT 7: ALCOHOLS, PHENOLS & ETHERS</u> - Alcohols: Nomenclature, methods of preparation, physical and chemical properties (of primary alcohols only), identification of primary, secondary and tertiary alcohols, mechanism of dehydration, uses with special reference to methanol and ethanol. - Phenols: Nomenclature, methods of preparation, physical and chemical properties, acidic nature of phenol, electrophilic substitution reactions, uses of phenols - Ethers: Nomenclature, methods of preparation, physical and chemical properties, uses REVISION FOR MID-TERM	- Remembering and Understanding: Nomenclature, Identification of alcohols, Name reactions, Preparation of alcohols, phenol and ethers. - Analyzing and applying the data: Properties of alcohol, phenol and ethers, Chemical reaction, Mechanism of the reactions, Acidic Nature of the phenol - Critical thinking ability	Salt Analysis: Determination of one anion and one cation in a given salt - I. Salt Analysis: Determination of one anion and one cation in a given salt- II.
MID – TERM EXAM			UNIT 1,2,3,4, 6,9 AND 10 MID TERM PRACTICAL EXAMINATION		
October	18	16	<u>UNIT 8: ALDEHYDES, KETONES & CARBOXYLIC ACIDS</u> - Aldehydes and Ketones: Nomenclature, nature of carbonyl group, methods of preparation, physical and chemical properties, mechanism of nucleophilic addition, reactivity of alpha hydrogen in aldehydes, uses. - Carboxylic Acids: Nomenclature, acidic nature, methods of preparation, physical and chemical properties; uses.	- Remembering and Understanding: Nomenclature, Identification of carbonyl compounds, Name reactions, Preparation of aldehydes, ketones and acids. - analyzing and applying the data: Properties of carbonyl compounds and acids, Chemical reaction, Mechanism of the reactions. - Critical thinking ability to observe the mechanism of various reaction.	Salt Analysis: Determination of one anion and one cation in a given salt. Preparation of Inorganic Compounds: - Preparation of double salt of Ferrous Ammonium Sulphate or Potash Alum. - Preparation of Potassium Ferric Oxalate

November	23	15	<u>UNIT 5: COORDINATION COMPOUNDS:</u> - Coordination compounds - Introduction, ligands, coordination number, color, magnetic properties and shapes, - IUPAC nomenclature of mononuclear coordination compounds. Bonding, - Werner's theory, - VBT, and CFT; - Structure and stereoisomerism, - Importance of coordination compounds (in qualitative analysis, extraction of metals and biological system)	- Remembering and Understanding: Nomenclature, properties, Werner's theory - Analyzing, Applying and Evaluating: CFT and VBT, Stereoisomerism - Critical thinking ability to analyze d-d transition and splitting of d orbitals in presence of ligands.	
PRE-BOARD - I			COMPLETE SYLLABUS		
December	19		SAMPLE PAPER DISCUSSION REVISION		
January	22		PRE BOARD – II (SAHODAYA PREBOARD): COMPLETE SYLLABUS CBSE PRACTICAL EXAMINATION		
February			CBSE BOARD EXAMINATION		

QUESTION PAPER PATTERN (MID-TERM & PRE-BOARDS)		
Sl. No.	Sections	Marks Allotted
1	Section - A: MCQs AND A&R	16 x 1= 16
2	Section - B: VERY SHORT QUESTIONS WITH INTERNAL CHOICE (2 MARKS QUESTIONS)	5 x 2 =10
3	Section - C: SHORT QUESTIONS WITH INTERNAL CHOICE (3 MARKS QUESTIONS)	7 x 3 = 21
4	Section - D: CASE BASED QUESTIONS	2 x 4 = 08
5	Section - E: LONG QUESTIONS WITH INTERNAL CHOICE (5 MARKSQUESTIONS)	3 x 5 = 15
Total Marks		70
6	PRACTICALS	30
Grand Total		100

INVESTIGATORY PROJECTS:

- Study of the presence of oxalate ions in guava fruit at different stages of ripening.
- Study of quantity of casein present in different samples of milk.
- Preparation of soybean milk and its comparison with the natural milk with respect to curd formation, effect of temperature, etc.
- Study of the effect of Potassium Bisulphate as food preservative under various conditions (temperature, concentration, time, etc.)
- Study of digestion of starch by salivary amylase and effect of pH and temperature on it.
- Comparative study of the rate of fermentation of following materials: wheat flour, gram flour, potato juice, carrot juice, etc.
- Extraction of essential oils present in Saunf (aniseed), Ajwain (carom), Illaichi(cardamom).
- Study of common food adulterants in fat, oil, butter, sugar, turmeric powder, chili powder and pepper.

QUESTION PAPER DESIGN FOR PRACTICALS:

Evaluation Scheme for Examination	MARKS (MID - TERM)	MARKS(CBSE)
Volumetric Analysis	08	08
Salt Analysis	08	08
Content Based Experiment	06	06
Project Work	-	04
Class record and viva	08	04
TOTAL	30	30

QUESTION PAPER TYPOLOGY: GRADE XII

S.No	Domains	Total Marks	%
1	Remembering and Understanding: Exhibit memory of previously learned material by recalling facts, terms, basic concepts and answers. Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions and stating main ideas.	28	40
2	Applying: Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	21	30
3	Analysing, Evaluating and Creating: Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations. Present and defend opinions by making judgments about information, validity of ideas or quality of work based on a set of criteria. Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions.	21	30

- There will be no overall choice in the question paper.
- However, 33% internal choices will be given in all the sections.

MATHEMATICS

Month	No. of Days	No. of Periods	Topics to be covered & Sub- Topics to be covered	Skills Covered	Activities/Projects/Practical/ Specific Assessment Tools
April	23	21	Ch-3: Matrices - Types of Matrices - Operations on Matrices - Transpose of a matrix - Symmetric and Skew symmetric matrices - Invertible matrices Ch-4: Determinants - Determinant of a square matrix (up to 3 x 3 matrices), minors, co- factors, finding the area of a triangle. Adjoint and inverse of a square matrix. - Consistency, inconsistency - Solutions of system of linear equations	Covering a range of skills related to mathematical manipulation include performing operations on matrices (addition, subtraction, multiplication), Calculating determinants, solving systems of linear equations using matrices.	Activities based on Matrices. Peer Teaching Quiz
May	20	20	CH-1: Relations and Functions - Types of relations: reflexive, symmetric, transitive, equivalence relations - One to one and onto functions Ch-2 Inverse Trigonometric Functions - Range, domain, principal value branch Ch-5 : Continuity and Differentiability - Chain rule, derivative of composite functions, - Derivatives of inverse trigonometric function - Derivatives of logarithmic and exponential functions. - Logarithmic differentiation	Identifying different types of Relations and functions and performing operations on Functions. Calculating Domain and Range. Solving Trigonometric equations, Understanding Domain and Range limitations. Graphical forms of Inverse Trigonometric Functions Differentiate different types of Functions	To verify the relation R in the set L of all lines in a plane defined by $R = \{ (l, m) : l \text{ is parallel to } m \}$ is an equivalence relation . To demonstrate a $f(x)$ which is one-one but not onto . To draw $\sin^{-1}x$ graph using the graph of $\sin x$ and demonstrate the concept of mirror reflection about the line $x = y$. Case study discussion Class test MCQ test

			Derivative of functions expressed in parametric forms		
June	11	10	Ch-5 : Continuity and Differentiability (Cont...) - Continuity and differentiability - Second order derivatives Ch-6 Applications of Derivatives rate of change of quantities,	Applying calculus concepts to analyze and solve problems related to rates of change, and identifying and finding maxima and minima.	To understand local maxima and minima and point of inflection . Case study discussion Class test MCQ test
July	26	15	Ch-6 Applications of Derivatives (Cont...) - increasing/decreasing functions, maxima and minima Ch-7 Integrals - Integration of functions by substitution, by partial fractions and by parts. - REVISION	Finding anti-derivatives (indefinite integrals), calculating definite integrals to determine area, and applying these concepts in various contexts like physics and engineering.	To understand the concept of absolute maxima and absolute minimum values of $f(x)$ in a given closed intervals through it's graph . To construct an open box of maximum value from rectangular sheet by cutting equal squares from each corner
UNIT TEST-I			Ch-1,2,3,4,5		
August	22	20	Ch-7 Integrals (Cont.) Integrals of the different types of problems based on formula Basic properties of definite integrals and evaluation of definite integrals. Ch-8 Application of the Integrals Applications in finding the area under simple curves, especially lines, circles/parabolas/ellipses Ch-9 Differential Equations Order and degree, general and particular solutions of a differential equation. Solution of differential equations by method of separation of variables, solutions of homogeneous differential equations of first order and first degree. Solutions of linear differential equation	Calculating areas under curves Variety of mathematical skills including calculus (derivatives and integrals), algebra, problem-solving, and	To evaluate definite integral $\int_a^b \sqrt{1-x^2} dx$ as the limit of a sum and verify it by actual integration . Case study discussion Class test MCQ test

September	23	12	Ch-12 Linear Programming - Graphical method of solution for problems in two variables, feasible and infeasible regions (bounded or unbounded), feasible and infeasible solutions. - REVISION	Formulating optimization problems, identifying variables and constraints, and employing various methods like graphical and simplex algorithms to find optimal solutions.	
MID – TERM EXAM & MID PRACTICAL EXAM			Ch-1, Ch-2, Ch-3, Ch- 4, Ch-5, Ch-6, Ch-7		
October	18	16	Ch-10 Vectors - Magnitude and direction of a vector. Direction cosines and direction ratios of a vector. Types of vectors (equal, unit, zero, parallel and collinear vectors), position vector of a point, negative of a vector, components of a vector, addition of vectors, multiplication of a vector by a scalar, position vector of a point dividing a line segment in a given ratio. Definition, Geometrical Interpretation, properties and application of scalar (dot) product of vectors, vector (cross) product of vectors. Ch-11 Three-dimensional Geometry - Direction cosines and direction ratios of a line joining two points. Cartesian equation and vector equation of a line, skew lines, shortest distance between two lines. Angle between two lines.	Concepts like vector addition, subtraction, scalar multiplication, and dot/cross products Analytical thinking and the ability to visualize and manipulate objects in a three-dimensional space. It also reinforces skills in geometry, algebra, and problem-solving.	To verify geometrically that $\vec{c} \times (\vec{a} + \vec{b}) = \vec{c} \times \vec{a} + \vec{c} \times \vec{b}$ To measure the shortest distance between two skew lines and verify it analytically . Activities based on three Dimensional Geometry. Case study discussion Class test MCQ test
November	23	15	Ch-13 Probability - Conditional probability, multiplication theorem on probability, independent events, total probability, Bayes' theorem. - REVISION	Calculating probabilities, understanding different types of probabilities, and applying probability concepts to real-world situations.	To explain the computation of conditional probability of a given event A when B has already occurred through an example of throwing a dice .

			PRE- BOARD-1	COMPLETE SYLLABUS	
December	20	18	SAMPLE PAPER DISCUSSION & REVISION	COMPLETE SYLLABUS	
January	22		SAHODAYA PRE BOARD & BOARD PRACTICAL EXAM		
February			CBSE BOARD EXAM		

QUESTION PAPER PATTERN		
Sl. No.	Sections	Marks Allotted
1	Section - A:Very Short Answer Type (MCQs, Assertion – Reasoning type questions)	$1 \times 20 = 20$ Marks
2	Section - B: Short Answer type	$2 \times 5 = 10$ Marks
3	Section - C: Long Answer-I	$3 \times 6 = 18$ Marks
4	Section - D: Long Answer type -II	$5 \times 4 = 20$ Marks
5	Section E: Case based questions	$4 \times 3 = 12$ Marks
Total Marks		80 Marks
5	Internal Mark	20 Marks
Grand Total		100 Marks

Note: Promotion will be granted on securing pass mark in all subjects (Annual)

EVALUATION SCHEME FOR INTERNAL EXAM	
Periodic Tests (Best 2 out of 3 tests conducted)	10 Marks
Mathematics Activities	10 Marks
Total marks	20 Marks

BIOLOGY(044)

Month	No. of Days	No. of Periods	Topics to be covered & Sub- Topics to be covered	Skills Covered	Activities/Projects/Practical/ Specific Assessment Tools
April	23	20 (10+10)	Chapter-1: Sexual Reproduction in Flowering Plants Flower structure; development of male and female gametophytes; pollination - types, agencies and examples; out breeding 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 dispersal and fruit formation. Chapter-2: Human Reproduction Male and female reproductive systems; microscopic anatomy of testis and ovary; gametogenesis - spermatogenesis and oogenesis; menstrual cycle; fertilization, embryo development up to blastocyst formation, implantation; pregnancy and placenta formation (elementary idea); parturition (elementary idea); lactation (elementary idea)	- Identifying plant parts, - recognizing different pollination methods and - understanding the reproductive processes. - Understanding human reproduction involves grasping key processes Like - gametogenesis, - fertilization, - implantation, - pregnancy and childbirth - Functions of Male and Female reproductive system.	- Study pollen germination. - Study about adaptations of different pollinating agents. - Project on Pollination and its type. - Text book questions - Concept of blastula formation with the help of various slides. - T.S. testis and Ovary. - T.S. of blastula. - Project on Gametogenesis. - Text book questions
May	24	20	Chapter-3: Reproductive Health Need for reproductive health and prevention of Sexually Transmitted Diseases (STDs); 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 learn - about family planning, - sexual health, and maternal health, - gaining skills in understanding reproductive processes, contraception, - MTPs - sexually transmitted infections (STIs) - infertility and related health issue.	To prepare a Project on various ART techniques used in today's Generation where there are so many complications regarding pregnancy.

			Chapter-11: Organisms and Populations Population interactions - mutualism, competition, predation, parasitism; population attributes - growth, birth rate and death rate, age distribution. Chapter-12: Ecosystem Ecosystems: Patterns, components; productivity and decomposition; energy flow; pyramids of number, biomass, energy.	- Understand the basic concepts and attributes of populations in ecology. - Differentiate between population size, density, dispersion, and growth rate. - Describe the different population growth models including exponential growth and logistic growth. - Analyse and interpret population growth data using population growth models Data collection and analysis, species identification, ecological understanding, and communication, all essential for protecting and managing ecosystems.	- Project on – - different population interactions - population growth models.
June	11	10	Chapter-4: Principles of Inheritance and Variation Heredity and variation: Mendelian inheritance; deviations from Mendelism – incomplete dominance, co-dominance, multiple alleles and inheritance of blood groups, pleiotropy; elementary idea of polygenic inheritance; chromosome theory of inheritance; chromosomes and genes; Sex determination – in humans, birds and honey bee; linkage and crossing over;	Students with skills to understand- - basic concepts on genetics and terminologies - including analyzing Punnett squares - interpreting genetic crosses - Mendelian inheritance - Non Mendelian inheritance, - linkage, recombination - chromosomal disorders.	- Prepare a chart Mono hybrid and dihybrid cross. - Project on Chromosomal disorders, genetic disorders - Sex determination. - Mendel's Inheritance
July	26	15	Chapter-5: 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;	Understands the molecular mechanisms of heredity - DNA structure, - Replication - Transcription - Translation - gene regulation - genetic	- Projects on - Griffith's experiment, - Meselson and Stahl Experiment, - Replication Process, - Transcription, - Protein synthesis, - Lac operon, - DNA finger printing, - HGP.

			Genome, Human and rice genome projects; DNA fingerprinting.	information flow • Operon model • HGP • DNA fingerprinting	
PERIODIC TEST-I			Chapter – 1,2 & 3		
August	22	20(6+8+6)	Chapter-6: Evolution Origin of life; biological evolution and evidences for biological evolution (paleontology, comparative anatomy, embryology and molecular evidences); Darwin's contribution, modern synthetic theory of evolution; mechanism of evolution - variation (mutation and recombination) and natural selection with examples, types of natural selection; Gene flow and genetic drift; Hardy-Weinberg's principle; adaptive radiation; human evolution Chapter-7: Human Health and Diseases Pathogens; parasites causing human diseases (malaria, dengue, chikungunya, filariasis, ascariasis, typhoid, pneumonia, common cold, amoebiasis, ring worm) and their control; Basic concepts of immunology - vaccines; cancer, HIV and AIDS; Adolescence - drug and alcohol abuse. Chapter-8: Microbes in Human Welfare Microbes in food processing, industrial	Understanding the theory of evolution, evidence supporting it, and the mechanisms driving evolutionary change, including natural selection, genetic drift, and speciation. Understanding disease causation, prevention, and management, including immunity, common diseases, and the impact of lifestyle and environmental factors on health. Understanding the diverse roles of microbes, including their	• Prepare a chart on evolution of man. To make a chart on various diseases. •To make a ppt on various awareness programme on Malaria •Make a project on various useful microbes. •Project on Bacterial diseases, Viral diseases, protozoan diseases. •HIV lifecycle •Plasmodium lifecycle •HIV and AIDS •Adolescence •Drug addiction •Bio gas plant. •Antibiotics; production and judicious use

			production, sewage treatment, energy generation and microbes as bio-control agents and bio-fertilizers. Antibiotics; production and judicious use.	applications in food production, medicine, bioremediation, and industrial processes, as well as their impact on human health and disease.	
September	23	12	Chapter-9: Biotechnology - Principles and Processes Genetic Engineering (Recombinant DNA Technology). Chapter-10: Biotechnology and its Applications Application of biotechnology in health and agriculture: Human insulin and vaccine production, stem cell technology, gene therapy; genetically modified organisms - Bt crops; transgenic animals; biosafety issues, biopiracy and patents.	Understanding the steps and processes of r DNA technology. Applicability in medicine, agriculture and research units.	- Isolation of DNA. - To prepare a project on artificial insulin. - Bt cotton - RNA interference - Projects on rDNA technology - Transgenic animals, - PCR
MID – TERM EXAM			Chapter -1 to 10		
October	18	16	Chapter-10: Biotechnology and its Applications Continued..... Chapter-13: Biodiversity and its Conservation Biodiversity-Concept, patterns, importance; loss of biodiversity; biodiversity conservation; hotspots, endangered organisms, extinction, Red Data Book, Sacred Groves, biosphere reserves, national parks, wildlife, sanctuaries and Ramsar sites.	Understanding ecological concepts, biodiversity, analyzing population dynamics, and recognizing how organisms adapt to their environment.	- To prepare a project on Biodiversity and conservation. - To prepare a project on various population Interaction.
November	23	15	REVISION		
December	20	15	SAMPLE PAPER DISCUSSION PREBOARD -1		
PREBOARD-1			COMPLETE SYLLABUS		
January	22		CBSE PRACTICAL EXAMINATION & SAHODAYA PREBOARD		
February	11		CBSE BOARD EXAM		
BOARD EXAMINATION			COMPLETE SYLLABUS		

QUESTION PAPER PATTERN INFORMATICS PRACTICES (065)						
Sl. No.		Sections				Marks Allotted
Month	No. of Days	No. of Periods	Topics to be covered & Sub-Topics to be covered	Skills Covered	Activities/ Projects/ Practical / Specific Assessment	16 Marks
2	Section - B:Short Answer type					10 Marks
3	Section - C:Long Answer-I					21 Marks
4	Section - D: Case based questions					08 Marks
5	Section E:Long Answer type –II					15 Marks
Total Marks						70 Marks
6	Internal Marks					30 Marks
Grand Total						100 Marks

Question Paper Design

Competencies	Total
Demonstrate Knowledge and Understanding	50 %
Application of Knowledge / Concepts	30 %
Analyse, Evaluate and Create	20 %

Typology of questions:

- VSA including MCQs, Assertion – Reasoning type questions;
- SA; LA-I; LA-II; Source-based/ Case-based/ Passage-based/ Integrated assessment questions.
- An internal choice of approximately 33% would be provided. Suggestive verbs for various competencies
- Demonstrate, Knowledge and Understanding State, name, list, identify, define, suggest, describe, outline, summarize, etc.
- Application of Knowledge/Concepts Calculate, illustrate, show, adapt, explain, distinguish, etc
- Analyse, Evaluate and Create Interpret, analyse, compare, contrast, examine, evaluate, discuss, construct.

April	23	17	Unit 1: Data Handling using Pandas-I: Introduction to Python libraries- Pandas, Matplotlib, Data structures in Pandas - Series and Data Frames. Series: Creation of Series from – ndarray, dictionary, scalar value; mathematical operations; Head and Tail Functions; Selection, Indexing and Slicing.	Understanding the need of Data Analysis using pandas Library. Ability to create Series Object from the given source Understanding the operations of Series Object	- Creating pandas Series from ndarray, dictionary and scalar value. - Series creation with Mathematical operations
May	20	15	Unit-1:Data Handling using Pandas-I: Data Frames: creation- from dictionary of Series, list of dictionaries, Text/CSV files, display; iteration; Operations on rows and columns: add, select, delete, rename; Head and Tail functions; Indexing using Labels, Boolean Indexing	Ability to create DataFrame Object from the given source. Understanding the operations of DataFrame Object	- Create a Data Frame of quarterly sales where each row contains the item category, item name, and expenditure. - Group the rows by the category and print the total expenditure per category. - Create a data frame for examination result and display row labels, column labels data types of each column and the Dimensions. Importing and Exporting data between pandas and CSV file
June	11	13	Unit-1 :Data Handling using Pandas- I: Importing/Exporting Data between CSV files and Data Frames. Data Visualization: Purpose of plotting; drawing and saving following types of plots using Matplotlib – line plot, bar graph, histogram Customizing plots: adding label, title, and legend in plots.	Understanding the Data transfer between DataFrame and CSV file. Ability to Create Different types of Graphs using Matplotlib Library	- Given the school result data, analyses the performance of the students on different parameters, e.g subject wise or class wise. - For the Data frames created above, analyze, and plot appropriate charts with title and legend. - Take data of your interest from an open source (e.g. data.gov.in), aggregate and summarize it. Then plot it using different plotting functions of the Matplotlib library.

July	26	15	Unit 2: Database Query using SQL Revision of database concepts and SQL commands covered in class XI Math functions: POWER (), ROUND (), MOD (). Text functions: UCASE()/UPPER (), LCASE ()/LOWER (), MID ()/SUBSTRING ()/SUBSTR (), LENGTH (), LEFT (), RIGHT (), INSTR (), LTRIM (), RTRIM (), TRIM (). Date Functions: NOW (), DATE (), MONTH (), MONTHNAME (), YEAR (), DAY (), DAYNAME (). Aggregate Functions: MAX (), MIN (), AVG (), SUM (), COUNT (); using COUNT (*). REVISION	Design SQL queries using different predefined functions and aggregate Functions.	- Print the min, max, sum and average marks of 10 students. - Find the total number of customers from each country in the table using Group By. - Write a SQL query to order the table in descending order of the marks.
-------------	-----------	-----------	--	--	--

UNIT TEST-I			UNIT-1, UNIT-2 (Till taught)		
August	22	24	Unit 2: Database Query using SQL Querying and manipulating data using Group by, Having, Order by. Working with two tables using equi-join Unit 3: Introduction to Computer Networks: Introduction to networks, Types of network: PAN, LAN, MAN, WAN. Network Devices: modem, hub, switch, repeater, router, gateway Network Topologies: Star, Bus, Tree, Mesh.	Learning terminology related to networking and internet.	Activities from Textbook and Reference Book with updated record containing programs.
September	25	10	Unit-3: (Continue....) Introduction to Internet, URL, WWW, and its applications- Web, email, Chat, VoIP. Website: Introduction, difference between a website and webpage, static vs dynamic web page, web server and hosting of a website. REVISION	Identifying internet security issues and configure browser settings.	Activities from Textbook and Reference Book
MID – TERM EXAM			UNIT-1, UNIT-2, UNIT-3(Till Taught)		

October	18	15	Web Browsers: Introduction, commonly used browsers, browser settings, add-ons and plug-ins, cookies. Unit 4: Societal Impacts: Digital footprint, net and communication etiquettes, data protection, intellectual property rights (IPR), plagiarism, licensing and copyright, free and open-source software (FOSS), cybercrime and cyber laws, hacking, phishing, cyber bullying, overview of Indian IT Act.	Identifying internet security issues and configures browser settings. Understand the impact of technology on society including gender and disability issues	Activities from Textbook and Reference Book.
November	23	25	E-waste: hazards and management. Awareness about health concerns related to the usage of technology. REVISION of All Chapters		PROJECT WORK
PREBOARD EXAM-1			COMPLETE SYLLABUS		
December	20	10	SAMPLE PAPER DISCUSSION REVISION		
January	22		SAHODAYA PREBOARD & BOARD PRACTICAL EXAMINATION		
February			CBSE BOARD EXAMINATION		

QUESTION PAPER PATTERN		
Sl. No.	Sections	Marks Allotted
1	SECTION-A: MCQ & Assertion Reason Based Questions (21 Questions)	1 X 21 = 21 Marks
2	SECTION-B: Very Short Answer Type Questions (7 Questions)	2 X 7 = 14 Marks
3	SECTION-C: Short Answer Type questions (4 Questions)	3 X 4 = 12 Marks
4	SECTION-D: Case Based Questions (2 Questions)	4 X 2 = 8 Marks
5	SECTION-E: Long questions (3 Questions)	5 X 3 = 15 Marks
Total Marks		70 Marks
Practical Marks		30 Marks
GRAND TOTAL		100 MARKS

PRACTICAL EVALUATION SCHEME:
Duration:3 HRS

Physical Education

Maximum Marks:30

Evaluation Scheme for Examination	MARKS
Program using pandas and Matplotlib	8
SQL Queries	7
Practical File	5
Project Work	5
Viva-voce	5
TOTAL	30

PROJECT WORK:

The Class XII Informatics Practices (065) project involves developing a tangible IT application using Python (Pandas/Matplotlib) and MySQL, focusing on solving real-world problems. Groups of 2–3 students must create a project involving data management (CSV/SQL), analysis, and visualization.

Question Paper Design

Marks: 70

Duration: 3 hrs.

SN	Typology of Questions	Percentage
1	Knowledge and Understanding Based Questions	20%
2	Case Based/Competency Based Questions/Source Based Integrated Questions	50 %
3	Application of Knowledge / Concepts	30%

Month	No. of Days	No. of Periods	Topics to be covered & Sub- Topics to be covered	Skills Covered	Activities/Projects/Practical/ Specific Assessment Tools
April	21	23	Unit-1. Management of Sporting Events. Functions of Sports Events Management. Various Committees & their Responsibilities. Fixtures and their Procedures –Knock- Out and Combination tournaments. Intramural & Extramural tournaments– Meaning, Objectives & Its Significance. Community Sports program.	Students will learn about the concept of Management. Students will be able to plan various types of Tournaments and draw Fixtures. Students will learn the concept of Intramurals and Extramural.	
May	15	15	Unit-2. Children & Women in Sports. Exercise guidelines of WHO for different age groups. Common postural deformities- knock knees, flat foot, round shoulders, Lordosis, Kyphosis, Scoliosis, and bow legs and their respective corrective measures. Women's participation in Sports- Physical, Psychological, and social benefits. Special consideration (menarche and menstrual dysfunction). Female athlete triad (osteoporosis, amenorrhea, eating disorders).	Students will learn about the Exercise guidelines of WHO. Students will get to know different types of postural deformities and its corrective measures. Importance of Physical Activities. Will understand the meaning Female athlete Triad.	
June	10	15	Unit- 3, Yoga as Preventive measure for Lifestyle Disease. Obesity: Procedure, Benefits & Contraindications of various asanas. Diabetes: Procedure, Benefits & Contraindications of various asanas. Asthma: Procedure,	To make students Understand about the main life style disease - Obesity, Hypertension, Diabetes, Back Pain and Asthma. To teach about different Asana in detail this can help as a preventive Measure for those Lifestyle Diseases.	Specialization: Football, Volleyball Record preparation for Special Game for Practical.

			Benefits & Contraindications of various asanas. Hypertension: Procedure, Benefits & Contraindications of various asanas. Back Pain and Arthritis: Procedure, Benefits & Contraindications of various asanas.		
July	24	15	Unit- 4, Physical Education and Sports for CWSN. Organizations promoting Disability Sports. Concept of Classification and Divisioning in Sports. Concept of Inclusion in sports, its need, and Implementation. Advantages of Physical Activities for children with special needs. Strategies to make Physical Activities assessable for children with special needs. Revision for UT-I.	To make students understand the concept of Disability and Disorder. To make them aware of Disability Etiquette. To make the students understand the advantage of physical activity for CWSN. To make the students aware of different strategies for making physical activity accessible for Children with Special Needs	Specialization: Basketball, Cricket. Record preparation for Special Game for Practical.
UNIT TEST-I			Unit-1. Management of Sporting Events. Unit-2. Children & Women in Sports. Unit- 3, Yoga as Preventive measure for Lifestyle Disease. Unit- 4, Physical Education and Sports for CWSN.		
August	20	20	Unit- 5, Sports & Nutrition. Concept of balanced diet and nutrition. Macro and Micro Nutrients: Food sources & functions. Nutritive & Non- Nutritive Components of Diet. Eating for Weight control – A Healthy Weight, The Pitfalls of Dieting, Food Intolerance, and Food Myths. Importance of Diet in Sports- Pre, During and Post competition Requirements. Unit- 6, Test & Measurement in Sports. Fitness Test – SAI Khelo India Fitness Test in school. Measurement of Cardio-	To make the students understand the importance of a balanced diet. To make them aware of eating for weight loss and the results of the pitfalls of dieting. To understand food intolerance & food myths. To make students to determine physical fitness	Yogic Asana and its process. Record preparation for practical Exam.

			Vascular Fitness – Harvard Step Test. Computing Basal Metabolic Rate (BMR). Rikli & Jones - Senior Citizen Fitness Test. Johnsen – Methney Test of Motor Educability.	Index through Harvard Step Test/Rockport Test. To measure the fitness level of Senior Citizens through Rikli and Jones Senior Citizen Fitness Test.	
September	21	15	Unit- 7, Physiology & Injuries in Sport. Physiological factors determining components of physical fitness. Effect of exercise on the Muscular System. Effect of exercise on the Cardio-Respiratory System. Physiological changes due to aging. Sports injuries: Classification. Revision for Mid-Term Exam. PRACTICAL EXAM.	Learning the changes caused due to aging. Understanding the various types of Sports Injuries, its cause and management.	SAI Khelo India Fitness Test practice for practical exam. Record preparation for practical exam.
MID – TERM EXAM			Unit-1. Management of Sporting Events. Unit-2. Children & Women in Sports. Unit- 3, Yoga as Preventive measure for Lifestyle Disease. Unit- 4, Physical Education and Sports for CWSN. Unit- 5, Sports & Nutrition. Unit- 6, Test & Measurement in Sports. Unit- 7, Physiology & Injuries in Sport.		
October	16	15	Unit- 8, Biomechanics and Sports. Newton's Law of Motion & its application in sports. Types of Levers and their application in Sports. Equilibrium – Dynamic & Static and Centre of Gravity and its application in sports. Friction & Sports. Projectile in Sports. Unit- 9, Psychology and Sports. Personality; its definition & types. Motivation, its type & techniques. Exercise Adherence: Reasons, Benefits &	Understanding Newton's Laws of Motion and their Application in Sports. Make students understand the lever and its application in sports. Understand the concept of Equilibrium and its application in sports. Understanding the concept of Friction and Projectile in sports. To make students understand Personality & its classifications. To make students	SAI Khelo India Fitness Test practice for practical exam. Record preparation for practical exam.

			Strategies for Enhancing it. Meaning, Concept & Types of Aggressions in Sports. Psychological Attributes in Sports – Self-Esteem, Mental Imagery, Self-Talk, Goal Setting.	understand the concept of motivation, Exercise Adherence, Aggression in sports. To make students understand Psychological Attributes in Sports.	
November	21	15	Unit- 10, Training in Sports. Concept of Talent Identification and Talent Development in sports. Sports Training Cycle- Micro, Meso, Macro Cycle. Types & Methods to Develop –Strength, Endurance, and Speed. Types & Methods to Develop – Flexibility and Coordinative Ability. Circuit Training - Introduction & its importance. Revision for Pre-Board Exam.	Understand sports training and the different cycle in sports training. Understand different types & methods of strengths, endurance, speed, flexibility and coordinative ability. Understand Circuit training and its importance.	
PRE-BOARD – 1 (COMPLETE SYLLABUS)					
December	20	15	Sample Paper Discussion and Revision.		
January	22		Sahodaya Pre-board and CBSE Practical Examination. Complete Syllabus.		
February			CBSE Board Examination. Complete Syllabus.		

QUESTION PAPER PATTERN		
Sl. No.	Sections	Marks Allotted
1	Section- A, Multiple Choice Questions (18)	18 X 01 =18 Marks.
2	Section- B, Very Short Answer Type Questions (5)	05 X 02 = 10 Marks.
3	Section- C, Short Answer Type Questions (5)	05 X 03 = 15 Marks.
4	Section- D, Case Based Questions (3)	03 X 04 = 12 Marks.
5	Section- E, Long Answer Type Questions (3)	03 X 05 =15 Marks.
Total Marks		70 Marks
Internal Marks		
6	Physical Fitness Test: SAI Khelo India Test, Rockport Physical Fitness Test (BPFT)	6 Marks
7	Proficiency in Games and Sports. (Skill of any one IOA recognized Sport/Game of Choice).	7 Marks
8	Yogic Practices.	7 Marks
9	Record File.	5 Marks
10	Viva Voce (Health/ Games & Sports/ Yoga).	5 Marks
Total Marks		30 Marks
Grand Total		100 Marks.

HINDUSTANI MUSIC VOCAL

MONTH	NO Of Days	NO OF PERIODS	TOPICS TO BE COVERED	SKILLS COVERED	Activities/Projects/ Practical
APRIL	23	9	1- Alankar in All Raagas Bhairav, Bageshri, Malkauns 2- Description of Prescribed Talas along with Tala Notation with Thah, Dugun, Tigun and Chaugun Jhaptala, Rupak, Dhamar	FUNDAMENTAL OF MUSIC	Practical skill Alankar
MAY	20	2	3- Raag Bhairav introduction	VOCAL FORMS	complex Alankar
JUNE	11	3	4- Brief study of the following: - Alankar, Kan, Meend, Khatka, Murki, Gamak. Brief study of the following Gram, Murchhana, Alap, Tana.	DEPTH KNOWLEDGE OF MUSICAL TERMS	Raag Bhairav Aron avroh Pakad
JULY	26	12	5- Chhota Khayala, Tarana of Raag Bhairav with Alap taan 6- Historical development of Time Theory of Ragas REVISION	PRACTICAL KNOWLEDGE OF RAAG DIFFERENT SINGING STYLE	Chhota Khayala and Tarana of Bhairav
UNIT TEST-I			ALL TOPICS FROM 1-6		
AUGUST	22	9	7- Introduction of all ragas and Writing in Notation the Compositions of Prescribed Ragas: Notation of one vilambit Khayal, one Dhamaar, one Tarana, one chhota khayal Bageshri - Dhamaar 8- Detail study of Sangeet Ratnakar and Sangeet Parijat	EXPLAINING STRUCTURE OF TAAL UNDERSTANDING THE LIFE OF MUSICIANS	Raag Bageshri in detail All taal knowledge And showing taal by hand gesture
SEPTEMBER	23	9	9- Life Sketch of Faiyaz Khan, Ustaad Bade, Ghulam Ali Khan, Krishna Rao, Shankar Pandit Revision for Mid Term		
MID TERM AND PRACTICAL EXAM			ALL TOPICS FROM 1-9		
OCTOBER	18	6	10- Critical study of Prescribed Ragas along with recognizing the Ragas from phrases of Swaras	PRACTICAL KNOWLEDGE OF RAAG	Singing Raag Bageshri in detail

			and elaborating them. Malkauns- Vilambit and chhota khyal 11- Tuning of Tanpura	Tuning and structure of Tanpura	
NOVEMBER	23	9	12- Life Sketch and contribution of Contemporary Artist Revision for Pre Board 1	Identifying the raga by its Swara	Project File
PRE BOARD 1			Whole syllabus		
DECEMBER	20	9	Revision For Board Exam Sample Paper Discussion	Riyaz of Ragas	
JANUARY	20		Sahodaya pre Board Exam PRACTICAL REVISION	SINGING ALL RAAGAS WITH TAAL	
FEBRUARY	15		FINAL PRACTICAL	Project ,all ragas,all taal	
FINAL EXAM			BOARD EXAM (WHOLE SYLLABUS FROM 1-12)		

QUESTION PAPER PATTERN

Sl.No.	Section	Marks Allotted
1	Section A : MCQ	1 x 8 = 8 Marks
2	Section B: Short Questions	2 x 5 = 10 Marks
3	Section C: Long Questions	6 x 2 = 12 Marks
	Total	30
4	Practical	70
	Grand Total	100

PRACTICAL:

SECTIONS	MARKS
Choice Raga (Vilambit & Drut Khyal) any one	18
Examiner's Choice of Ragas	10
One Tarana and one Dhamar with Dugun and Chaugun	16
Identification of Ragas	6
Reciting the Thekas of Prescribed Talas with hand beats with Thah and Dugun and Chaugun: Jhaptala, Rupak, Dhamar	10
Tuning of Tanpura and questions regarding it	5
PROJECT FILE	5
TOTAL PRACTICAL MARKS	70
GRAND TOTAL	100

ASSESSMENT PATTERN-XII

The school will conduct the Annual Scheme of Assessment after Pre-Board-II.

COMPOSITION OF QUESTION PAPER

(UT/MID-TERM/FINAL TERM)

Competency Based Questions (Evaluating & Creating) (Including MCQ's, Case-Based, Source based Integrated questions, HOTS etc)	50%
(Remembering & Understanding) Objective Type Questions	20%
(Application/Analysis) Short Answer Type and Long Answer Based Questions	30%

EXAMINATION PATTERN: SCHOLASTIC

ASSESSMENT	MONTH	FULLMARKS	AGGREGATE
UNIT TEST-I	JULY	40	-----
MID-TERM	SEPTEMBER	Theory (30/70/80) Practical (70/30/20)	T- 70 + P-30 T-80 + P-20
UNIT TEST-II/ PRE-BOARD-I	NOVEMBER/DECEMBER	40	-----
PREBOARD-II	JANUARY	Theory (30/70/80)	T- 70 + P-30 T-80 + P-20
ANNUAL EXAM	FEBRUARY-MARCH	Theory (30/70/80) Practical (70/30/20)	As per Board

Kindly note, student must clear all assessment, including Unit Test, Mid Term, Pre-Board-I and Pre-Board-II for qualifying to appear Board Exam.

However, to ensure the regular revision of concepts and to avoid learning gap, the school will conduct regular class test to monitor the progress. This in turn shall set the pace of continuous learning along with reinforcement of basic concept.

ASSESSMENT PATTERN: CO-SCHOLASTIC

Health and Physical Education, Work Education and General Studies will be graded on an 8-point grading scale (A1 to E) for the academic year 2026-27. The activities and projects pertaining to the above will be carried out throughout the academic session, which in turn will equip the students with core life skills and competencies to transform them into lifelong learners.

It is once again reiterated that the facilitators are giving optimum exposure and practice to the learners to keep them abreast with the latest changes. However, your support and encouragement towards the pattern will go a long way in yielding whole some learning and assessment.