

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	21	1. Portrait of a Lady 2. A Photograph (poem) 3. The Summer of the Beautiful White Horse	Understanding themes of nostalgia, relationships, and the passage of time.	Write the synopsis of the poem "A Photograph"
May	4	4	4. We are not Afraid to Die	Understanding the elements of adventure and survival through first-person narration.	Provide a detailed explanation of all the parts of the Wavewalker mentioned in the story We Are Not Afraid to Die..., describing the function of each part and including relevant pictures.
June	10	8	5. Tense 6. Note making and Summarizing 7. Discovering Tut: The Saga Continues 8. Reordering/ Transformation of sentences	Developing analytical reading skills to understand historical and scientific exploration, along with literary appreciation of descriptive and investigative writing styles.	Research and present a report on famous archaeological discoveries, highlighting their historical and scientific significance with visuals.
July	15	12	9. Speech and Debate 10. Laburnum Top (poem) 11. The Address 12. Clauses 13. Classified advertisements	Enhancing reading comprehension, understanding symbolism, appreciating poetic devices, analyzing themes of nostalgia, and interpreting emotions conveyed through vivid imagery and metaphors.	Your younger brother aged 5 has been missing for the last three days. Draft an advertisement in not more than 50 words for the Missing Persons column of a local newspaper. You are Ram/Rama. Contact number 93107XXXX
PERIODIC TEST-I			• THE PORTRAIT OF A LADY • A PHOTOGRAPH • SUMMER OF BEAUTIFUL WHITE HORSE, • COMPREHENSION • NOTE-MAKING AND SUMMARISING.		
August	20	17	14. Poster writing 15. Voice of the Rain (poem) 16. Mother's Day	Understanding personification, appreciating imagery, analyzing cyclical patterns in nature, and interpreting the poem's deeper philosophical meaning.	Make a chart of all the literary devices used in the poem "Voice of the Rain". Define them along with other examples and paste pictures.
September	12	10	17. Childhood (poem) 18. The Adventure	Identifying themes of self-awareness, loss of innocence, poetic devices, introspection, and the transition from childhood to maturity.	Debate on the topic " Which is better: Childhood or Adulthood?"
MID – TERM EXAM			• All the topics taught from April to August		
October	16	15	19. Tale of Melon City 20. Father to Son 21. Case based and factual passage	Understanding satire, irony, absurdity, symbolism, governance, and interpretation of justice in society.	Write a letter or poem expressing emotions in a strained parent-child relationship, highlighting reconciliation and understanding.

November	23	21	22.Birth 23. Silk Road	Developing travel writing analysis, cultural insights, descriptive imagery, and narrative comprehension skills.	Make a list of all the Silk Road facts that you didn't know.
December	20	15	24. Descriptive passage 25. Revision		
PERIODIC TEST-II			• VOICE OF THE RAIN, • TALE OF MELON CITY, • MOTHER'S DAY, • FATHER TO SON, • TENSE • CLAUSE • COMPREHENSION • NOTE MAKING AND SUMMARISING • SPEECH AND DEBATE		
January	22	12	Revision		
February	15		Annual Examination		
ANNUAL EXAM			All The Topics Taught		

QUESTION PAPER PATTERN		
Sl. No.	Sections	Marks Allotted
1	Section - A: READING SKILLS	26 Marks
2	Section - B: GRAMMAR AND CREATIVE WRITING SKILLS	23 Marks
3	Section - C: LITERATURE	31 Marks
Total Marks		80 Marks
4	Internal Marks	20 Marks
Grand Total		100 Marks

MATHEMATICS (041)

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	1. Sets - Introduction - Types of Sets - Venn Diagram - Operations on Sets	- Classification & representation of data (set notation, Venn diagrams) - Logical reasoning using operations (union, intersection, complement) - Analytical comparison of sets - Problem-solving using real-life situations	To verify that for two sets A & B, $n(A \times B) = pq$ and the total number of relations from A to B is 2^{pq}, where $n(A) = p$ and $n(B) = q$. To verify the distributive law for three given non-empty sets A, B and C that is $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$.
May	04	04	2. Relations and Functions - Ordered Pairs, Cartesian Product - Domain, Co-domain Summer Vacation	- Mapping relationships between variables - Understanding domain, range, co-domain	
June	11	10	2. Relations and Functions(Continued) - Range - Types of Functions - Graphs of Functions	- Functional thinking and abstraction - Graph interpretation and analysis	Activities based on Relation and Functions
July	26	15	3. Trigonometric Functions - Angles in radian & degrees - Conversion between radian & degrees - Definition via unit circle - Identities - Graphs, domain & range - Addition & subtraction formulas - Multiple and Sub – Multiple angle identities 4. Complex Numbers and Quadratic Equations - Need for $\sqrt{-1}$ - Algebraic properties - Argand plane - Quadratic equations in complex numbers Revision	- Angle measurement (degrees $\leftrightarrow$ radians) - Application of identities and transformations - Graphical visualization of periodic functions - Algebraic manipulation and simplification - Abstract number system understanding - Algebraic manipulation of complex numbers - Equation solving and root analysis - Visualization on Argand plane	To plot the graph of $\sin x, \sin 2x, 2\sin x$ & $\sin \frac{x}{2}$ using same coordinate axes.
UNIT TEST-I			Ch – 1, 2 and 3		

August	22	20	5. Linear Inequalities - Linear inequalities in one variable - Graphical representation - Algebraic solutions 6. Permutations and Combinations - Counting principle - Factorials (n!) - nPr, nCr - Derivations & simple applications	- Logical reasoning and inequality solving - Graphical representation of solutions - Decision-making in constraints-based problems - Counting techniques and arrangements - Logical thinking & case analysis - Application in probability problems	To verify that the graph of a given inequality, say $5x + 4y - 40 < 0$ of the form $ax + by + c < 0$, $a, b > 0$, $c < 0$ represents only one of the two half planes.
September	23	12	9. Straight lines - Slope of a line - Equations of lines (slope-intercept, two-point, point-slope, intercept form) - Distance of a point from a line - Angle between lines Revision	- Graphical interpretation of equations - Slope analysis and geometric reasoning - Problem-solving using coordinate system	To verify that the equation of a line passing through the point of intersection of two lines as $a_1x + b_1y + c_1 = 0$ and $a_2x + b_2y + c_2 = 0$ is of the form $(a_1x + b_1y + c_1) + \lambda(a_2x + b_2y + c_2) = 0$
MID – TERM EXAM & MID – PRACTICAL EXAM			Ch – 1, 2, 3, 4, 5 and 6		
October	18	16	7. Binomial Theorem - Statement & proof for positive indices - Pascal's triangle - Simple applications 8. Sequence and Series - Arithmetic Mean (A.M.) - Geometric Progression (G.P.) - General & nth term of a G.P. - Sum of n terms & infinite G.P. - Geometric Mean (G.M.) - Relation between A.M. & G.M.	- Expansion techniques - Pattern recognition - Coefficient identification - Algebraic simplification - Pattern identification and generalization - Logical progression (AP, GP) - Summation techniques - Analytical reasoning	To demonstrate that the arithmetic mean of two different positive numbers is always greater than the geometric mean.

November	23	21	10. Conic Sections - Circles, ellipses, parabolas, hyperbolas - Degenerate cases - Standard equations & properties 11. Introduction to Three Dimensional Geometry - Coordinate axes & planes - Coordinates of a point - Distance between two points	- Visualization of curves (circle, parabola, ellipse, hyperbola) - Equation derivation and interpretation - Real-life application of geometry - Spatial visualization - Coordinate representation in 3D space - Distance and section analysis	To explain the concepts of octants by three mutually perpendicular planes in the space .
December	20	15	12. Limits and Derivatives - Idea of limits - Limits of polynomials, rational, trigonometric, exponential & logarithmic functions - Derivative as rate of change & slope - Derivatives of polynomial & trigonometric functions - Rules: sum, difference, product, quotient 14. Probability - Events & outcomes - Mutually exclusive & exhaustive events - Axiomatic approach - Probability of 'not', 'and', 'or' events Revision	- Concept of limit (approach & continuity) - Basic differentiation - Understanding rate of change - Foundation for higher calculus - Chance and uncertainty analysis - Logical reasoning using events - Real-life application of probability - Decision-making under uncertainty	To find analytically $\lim_{x \rightarrow c} f(x) = \frac{x^2 - c^2}{x - c}$ Verification of geometrical significance of derivative . To write the sample space of a die if rolled once and twice
UNIT TEST-II			Ch – 7, 8, 9 and 10		
January	22	12	13. Statistics - Range - Mean deviation - Variance - Standard deviation (grouped & ungrouped data) Practical Exam	- Data collection & organization - Graphical representation (histograms, ogives) - Measures of central tendency - Data interpretation	Activities based on Statistics
February			Revision Annual Exam	Complete Syllabus	

QUESTION PAPER PATTERN

Sl. No.	Sections	Marks Allotted
1	Section - A: (18 MCQ'S & 2 Assertion and Reason Questions)	$1 \times 20 = 20$ Marks
2	Section - B: (5 Very Short Answer Type Questions)	$2 \times 5 = 10$ Marks
3	Section - C: (6 Short Answer Type Questions)	$3 \times 6 = 18$ Marks
4	Section - D: (4 Long Answer Type Questions)	$5 \times 4 = 20$ Marks
5	Section - E: (3 Case Based Type Questions)	$4 \times 3 = 12$ Marks
Total Marks		80 Marks
6	Internal Marks	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

PHYSICS

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	14	<u>Chapter-1: Units and Measurements</u> Need for measurement: Units of measurement; systems of units; SI units, fundamental and derived units. Significant figures, Determining the uncertainty in result. Dimensions of physical quantities, dimensional analysis and its applications. <u>Chapter-2: Motion in a Straight Line</u> Frame of reference, Motion in a straight line, Elementary concepts of differentiation and integration for describing motion, uniform and non-uniform motion, average speed and average velocity and instantaneous velocity.	Unit and measurement develops skills in understanding and applying the international system of units in daily life along with that in this chapter dimension and its application plays a great role in solving numerical and conceptual development. Studying motion in straight line, also known as rectilinear motion, develops skills in understanding and applying concepts like displacement, velocity, acceleration, and time to describe and analyze the movement of an object along a straight path.	P1.To measure diameter of a small spherical / cylindrical body and to measure internal diameter and depth of a given beaker / calorimeter using Vernier Calipers and hence find its volume.
May	10	08	<u>Chapter-2: Motion in a Straight Line</u> Uniformly accelerated motion, velocity - time and position-time graphs. Relations for uniformly accelerated motion (graphical and calculus treatment).		
june	11	10	<u>Chapter-3: Motion in a Plane</u> Scalar and vector quantities; position and displacement, general vectors and their notations; equality of vectors, multiplication of vectors by a real number; addition and subtraction of vectors, Unit vector; resolution of a vector in a plane, rectangular components, Scalar and Vector product of vectors. Motion in a plane, cases of uniform velocity and uniform acceleration- projectile motion, uniform circular motion.	chapter develops the skill in vector analysis , understanding two dimensional motion and applying, analyzing the projectile motion including resolving vector and using equation of motion	P2.To measure diameter of a given wire and thickness of a given sheet using screw gauge.

July	26	15	<u>Chapter-4: Laws of Motion</u> Intuitive concept of force, Inertia, Newton's first law of motion; momentum and Newton's second law of motion; impulse; Newton's third law of motion. Law of conservation of linear momentum and its applications. Equilibrium of concurrent forces, Static and kinetic friction, laws of friction, rolling friction, lubrication. Dynamics of uniform circular motion: Centripetal force, examples of circular motion (vehicle on a level circular road, vehicle on a banked road). <u>Chapter-5: Work, Energy and Power</u> Work done by a constant force and a variable force; kinetic energy, work- energy theorem, power. Notion of potential energy, potential energy of a spring, conservative forces: non-conservative forces, motion in a vertical circle; elastic and inelastic collisions in one and two dimensions.	Laws of motion fosters and develops skills in problem solving, critical thinking and applying it to real life situations along with force, momentum inertia realizes the existence of knowledge of LOM	P3.To determine radius of curvature of a given spherical surface by a Spherometer.
UNIT TEST-I			CHAPTER -1,2,3,4		
August	22	20	<u>Chapter-6: System of Particles and Rotational Motion</u> Centre of mass of a two-particle system, momentum conservation and Centre of mass motion. Centre of mass of a rigid body; center of mass of a uniform rod. Moment of a force, torque, angular momentum, law of conservation of angular momentum and its applications. Equilibrium of rigid bodies, rigid body rotation and equations of rotational motion, comparison of linear and rotational motions. Moment of inertia, radius of gyration, values of moments of inertia for simple geometrical objects (no derivation). <u>Chapter-7: Gravitation</u>	This chapter covers and develops skills to analyze complex mechanical system, Centre of mass, torque, angular momentum, and rotational kinematics along with it develops the skill of problem solving critical thinking conceptual understanding.	A1.To make a paper scale of given least count, e.g.,0.2cm,0.5 cm.

			Kepler's laws of planetary motion, universal law of gravitation. Acceleration due to gravity and its variation with altitude and depth. Gravitational potential energy and gravitational potential, escape speed, orbital velocity of a satellite, energy of an orbiting satellite.	Gravitation encompasses the skill in understanding the fundamental physics concepts, problem solving using mathematical concepts and models. Cavendish experiment and change of value of 'g' helps to solve the numerical.	A2. To plot a graph for a given set of data, with proper choice of scales and error bars.
September	23	12	Chapter-8: Mechanical Properties of Solids Elasticity, Stress-strain relationship, Hooke's law, Young's modulus, bulk modulus, shear modulus of rigidity (qualitative idea only), Poisson's ratio; elastic energy. Application of elastic behavior of materials (qualitative idea only). Chapter-9: Mechanical Properties of Fluids Pressure due to a fluid column; Pascal's law and its applications (hydraulic lift and hydraulic brakes), effect of gravity on fluid pressure. Viscosity, Stokes' law, terminal velocity, streamline and turbulent flow, critical velocity, Bernoulli's theorem and its simple applications (Torricelli's law and Dynamic lift). Surface energy and surface tension, angle of contact, excess of pressure across a curved surface, application of surface tension ideas to drops, bubbles and capillary rise.	This chapter develops the skill like understanding the concept of stress and strain and its type, elasticity, plasticity, and various moduli. In fluid mechanics skills develop like understanding and analyzing fluid behavior, pressure, surface tension, buoyancy and viscosity and also develops the skill how to solve numerical on it.	P4. To find the weight of a given body using parallelogram law of vectors. A3. To study the variation in range of a projectile with angle of projection.
MID – TERM EXAM & MID-TERM PRACTICAL EXAM			CHAPTER - 1, 2, 3, 4, 5, 6, 7		
October	18	16	Chapter-10: Thermal Properties of Matter Heat, temperature, thermal expansion; thermal expansion of solids, liquids and gases, anomalous expansion of water; specific heat capacity; Cp, Cv - calorimetry; change of state - latent heat capacity. Heat transfer-conduction, convection and radiation, thermal conductivity, qualitative ideas of Blackbody radiation, Wein's displacement	Thermal properties of matter equips with skills to understand and predicts how materials behave under varying temperatures, including understanding heat transfer, thermal expansion, and specific heat capacity.	A4. To observe and explain the effect of heating on a bi-metallic strip. P5. To find the force constant of a helical spring by plotting a

			Law, Stefan's law. <u>Chapter-11: Thermodynamics</u> Thermal equilibrium and definition of temperature, zeroth law of thermodynamics, heat, work and internal energy. First law of thermodynamics, Second law of thermodynamics: Thermodynamic state variable and equation of state. Change of condition of gaseous state isothermal, adiabatic, reversible, irreversible, and cyclic processes.	Thermodynamics develops the skills like understanding energy transformation, heat transfer, and behavior of matter under various condition also increases mathematical, practical and analytic skill.	graph between load and extension. P6.To determine specific heat capacity of a given solid by method of mixtures.
November	23	21	<u>Chapter-12: Kinetic Theory of gases</u> Equation of state of a perfect gas, work done in compressing a gas. Kinetic theory of gases - assumptions, concept of pressure. Kinetic interpretation of temperature; rms speed of gas molecules; degrees of freedom, law of equi-partition of energy (statement only) and application to specific heat capacities of gases; concept of mean free path, Avogadro's number. <u>Chapter-13: Oscillations</u> Periodic motion - time period, frequency, displacement as a function of time, periodic functions and their applications. Simple harmonic motion (S.H.M), uniform circular motion and its equations of motion; phase; oscillations of a loaded spring-restoring force and force constant; energy in S.H.M. Kinetic and potential energies; simple pendulum derivation of expression for its time period.	The core concepts in this chapter equips the skill to understand and predict gas behavior by relating microscopic properties to macroscopic properties of gases. Studying oscillation in physics develops skills in understanding periodic motion, analyzing wave phenomena and applying mathematical models to predicts motion, including concepts like SHM.	P7.To study the relation between frequency and length of a given wire under constant tension using sonometer. P8.To study the relationship between the temperature of a hot body and time by plotting a cooling curve.
December	20	15	<u>Chapter-14: Waves</u> Wave motion: Transverse and longitudinal waves, speed of travelling wave, displacement relation for a progressive wave, principle of superposition of waves, reflection of waves, Revision for unit test-2	Waves involves developing skills like understanding wave nature and properties, analyzing wave behavior and applying these concepts to solve problems.	A5.To observe the decrease in pressure with increase in velocity of a fluid. A6.To study the factors affecting the rate of

					loss of heat of a liquid.
UNIT TEST-II			CHAPTER - 8, 9, 10, 11, 12		
January	22	12	Chapter-14: Waves(continue) Standing waves in strings and organ pipes, fundamental mode and harmonics, Beats. Revision PRACTICAL EXAM		
February	15		ANNUAL EXAM		
ANNUAL EXAM			COMPLETE SYLLABUS		

QUESTION PAPER PATTERN

Sl. No.	Sections	Marks Allotted
1	Section - A: very short answer question(MCQ) Assertion and Reason	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 base question	4×2=08 Marks
	Section - E: long answer question - II	5×3=15 Marks
Total Marks		70 Marks
5	Practical Marks	30 Marks
Grand Total		100 Marks

QUESTION PAPER DESIGN Theory (Class: XI)

QUESTION PAPER DESIGN Theory (Class: XI)			
Sl. No.	Typology of Questions	Total Marks	Approximate Percentage
1	Remembering: Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. Understanding: Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas	27	38%
2	Applying: Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	22	32%
3	Analysing : Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations Evaluating: Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. Creating: Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions.	21	30%
	Total Marks	70	100
	Practical	30	
	Gross Total	100	

PRACTICALS EVALUATION SCHEME
Time 3 hours
Max. Marks: 30

Topic	Marks
Two experiments one from each section	7+7
Practical record (experiment and activities)	5
One activity from any section	3
Investigatory Project	3
Viva on experiments, activities and project	5
Total	30

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

CHEMISTRY

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: Some Basic Concepts of Chemistry</u> <u>General Introduction:</u> Importance and scope of Chemistry, Nature of matter: Classification. - Properties of matter and their measurements. Uncertainty in measurements. - Laws of chemical combination, Dalton's atomic theory, Concepts of atoms and molecules. - Atomic and molecular Masses, Mole concept and molar masses . - Percentage composition: Empirical formula and molecular formula.	- Remembering and understanding of concepts: Laws of chemical combination, Dalton's atomic theory - Application of numerical ability: Calculation of Molar mass, Mole Concept	Mind map on Some Basic concepts of Chemistry, Quiz on the topic of Some Basic concepts of Chemistry.
May	4	4	<u>UNIT 1: Some Basic Concepts of Chemistry (Contd.)</u> - Stoichiometry and Calculation based on stoichiometry. <u>The Gaseous State:</u> - Qualitative treatment of gas laws. Ideal gas equation and derivations from it. (TOPIC NOT INCLUDED IN ASSESSMENT)	- Analyzing the concepts and applying the acquired knowledge and facts: percentage Composition, Chemical reactions. - Application of numerical ability: Stoichiometric calculations, concentration terms. - Analyzing and Understanding the concept of Gas Laws - Applying the ideal gas equation to derive expressions from it.	INVESTIGATORY PROJECT.
June	11	10	<u>Unit -7 : Redox reaction:</u> - Concepts of oxidation and reduction, Redox reaction. - Oxidation number. - Applications of Redox reaction. - Types of chemical reactions. - Balancing Redox reactions in terms of loss and gain of	- Remembering and understanding of concepts: Oxidation, reduction and redox process in terms of electronic concept and oxidation number. - Application of numerical ability: Oxidation number	<u>Quantitative estimation</u> Preparation of standard solution of oxalic acid. 2. Determination of molarity of a given solution of sodium hydroxide by titrating it against standard solution of oxalic acid.

			electrons and change in oxidation number. <u>Unit - 2 : Structure of Atom:</u> Discovery of electron, proton and neutron. Atomic number, Mass number, isotope and isobar.	calculation. - Analyzing: Different types of chemical reactions that can be classified under redox. - Demonstrate understanding and application of facts and ideas: Balancing of redox reactions in different mediums. - Critical thinking ability: Electrochemical series. - Remembering and understanding of concepts: Subatomic particles, Atomic number. - Analyzing the difference between isotopes and isobars.	
July	26	15	<u>Unit -2: Structure of Atom:</u> - Thomson's Model and its limitations. - Rutherford 's model and its limitations. - Bohr's model and its limitations. - Concepts of shell and sub-shell. - Dual nature of matter and light, de- Broglie's equation . - Heisenberg uncertainty principle and concept of orbitals. - Quantum numbers. Shapes of s, p and d orbitals, rules for filling electrons in orbitals - Aufbau principle, Pauli's exclusion principle and Hund's rule, electronic configuration of atoms. - Stability of half-filled and completely filled orbitals. Revision for UT - I	- Remembering and understanding of concepts: Subatomic particles, Atomic models, Heisenberg's uncertainty principle, orbitals - Application of numerical ability: Mathematical aspect of Bohr's model, photoelectric effect. - Analyzing and applying the data: Electronic configuration, Quantum numbers. - Critical thinking ability: stability of orbitals.	Determination of pH of some solutions obtained from fruit juices, solutions of known and varied concentrations of acids, bases and salts using pH paper.
UNIT TEST-I			Unit- 1,2 and 7		

August	22	20	<u>Unit 3: Classification of Elements and Periodicity in Properties Significance of classification:</u> - Brief history of the development of periodic table, modern periodic law and the present form of periodic table. - Periodic trends in properties of elements :- atomic radii, ionic radii, inert gas radii, Ionization enthalpy, electron gain enthalpy, electronegativity, valency. - Nomenclature of elements which atomic number is more than 100. <u>Unit 4: Chemical Bonding and Molecular Structure :</u> - Kossel- Lewis approach to chemical bonding. Ionic bond, covalent bond and bond parameters. - Lewis structure, polar character of covalent bond, covalent character of ionic bond. - Valence bond theory, resonance, geometry of covalent molecules. - VSEPR Theory - Concepts of hybridization, involving s, p and d orbitals and shapes of some simple molecules. - Molecular orbital theory of homonuclear diatomic molecules (qualitative idea only). - Hydrogen Bond.	- Remembering and understanding: Modern Periodic Law, Nomenclature of the elements greater than 100, Present form of the periodic table, Properties of the elements in various blocks. - Analyzing and applying the data: Periodic trends in properties.	Comparing the pH of solutions of strong and weak acids of same concentration. <u>Salt Analysis:</u> Determination of one anion and one cation in a given salt.
September	23	12	<u>Unit 8: Organic Chemistry – Some Basic Principles and Techniques.</u> - General Introduction, methods of purification, qualitative and quantitative analysis. - Tetravalence of carbon, shape and structural	Remembering and understanding: Nomenclature of the organic compounds, Methods of purification, Types of bond fission and types of organic reactions, electrophiles and nucleophiles.	<u>Salt Analysis:</u> Determination of one anion and one cation in a given salt.

			representations of organic compounds. - Classifications of organic compounds. - IUPAC nomenclature of organic compounds. - Isomerism. - Electronic displacements in a covalent bond: inductive effect, electrometric effect, resonance and hyperconjugation. - Concepts of organic reaction mechanism and cleavage of covalent bond : free radicals, carbocations, carbanions, electrophiles and nucleophiles. - Type of organic reactions. Revision for Mid- Term examination.	- Analyzing and applying the data: stability of organic compounds, factors affecting the stability of carbocations, carbanions and free radicals, electron displacement effects. - Critical thinking ability: Order of stability of reaction intermediates, acidic character.	
MID – TERM EXAM and MID PRACTICAL EXAM			Unit - 1,2,3,4,7 and 8.		
October	18	16	<u>Unit 9: Hydrocarbons</u> <u>Aliphatic Hydrocarbons:</u> - Alkanes: Nomenclature, isomerism, conformation (ethane only), physical properties, chemical reactions including free radical mechanism of halogenation, combustion and pyrolysis. - Alkenes: Nomenclature, structure of double bond (ethene), geometrical isomerism, physical properties, methods of preparation, chemical reactions: addition of hydrogen, halogen, water, hydrogen halides (Markovnikov's addition and peroxide effect), ozonolysis, oxidation, mechanism of electrophilic addition. - Alkynes: Nomenclature, structure of triple bond	- Remembering and understanding: Nomenclature, isomerism, methods of preparation, Name reactions: Wurtz, Kolbe electrolytic method etc. - Analyzing, Applying and Evaluating: Physical and Chemical properties of the hydrocarbons. - Critical thinking ability: Conversions between organic compounds, Mechanism of various reactions: Aromatic electrophilic substitution, free radical etc.	<u>Salt Analysis:</u> Determination of one anion and one cation in a given salt. Crystallization of an impure sample of any one of the following: 1.Copper sulphate, 2.Benzoic acid

			(ethyne), physical properties, methods of preparation, chemical reactions: acidic character of alkynes, addition reaction of -hydrogen, halogens, hydrogen halides and water. Aromatic Hydrocarbons: Introduction, IUPAC nomenclature, benzene: resonance, aromaticity, chemical properties: mechanism of electrophilic substitution. Nitration, sulphonation, halogenation, Friedel Craft's alkylation and acylation, directive influence of functional group in mono substituted benzene, carcinogenicity and toxicity.		
November	23	21	Unit 5: Chemical Thermodynamics: - Concepts of System and types of systems, surroundings, work, heat, energy, extensive and intensive properties, state functions. - First law of thermodynamics -internal energy and enthalpy, heat capacity and specific heat, measurement of ΔU and ΔH. - Hess's law of constant heat summation, enthalpy of bond dissociation, combustion, formation, atomization, sublimation, phase transition, ionization, solution and dilution. - Second law of Thermodynamics (brief introduction), Introduction of entropy as a state function, Gibb's energy change for spontaneous and non-spontaneous processes, criteria for	- Remembering and understanding the concept of system, surroundings, extensive and intensive properties, state and path functions, laws of thermodynamics - Analyzing, Applying of numerical ability and Evaluating: heat capacity and Specific heat capacity, Enthalpy change during various processes. - Critical thinking ability: Spontaneity of a reaction	

			equilibrium. Third law of Thermodynamics (brief introduction).		
December	20	15	Unit 6: Equilibrium: - Equilibrium in physical and chemical processes, dynamic nature of equilibrium, law of mass action, equilibrium constant. - Factors affecting equilibrium – Le Chatelier's principle. - Ionic equilibrium- ionization of acids and bases, strong and weak electrolytes, degree of ionization, ionization of poly basic acids, acid strength, concept of pH, hydrolysis of salts (elementary idea), buffer solution. - Henderson Equation, solubility product, common ion effect (with illustrative examples).	- Remembering and understanding: Physical and Chemical equilibrium, law of Mass action, Concept of pH, Hydrolysis of salts, - Analyzing, Applying and Evaluating: Le Chatelier's principle, Ionization of acids and bases, solubility product, Henderson equation - Application of numerical ability: Equilibrium constant - Critical thinking ability: common ion effect, Buffer solutions	
UNIT TEST-II			Revision for UT-II		
			Units - 5, 6 and 9.		
January	22	12	s & p Block Elements : Electronic configuration, atomic & Ionic radii, Ionization Enthalpy, Hydration Enthalpy and general trends in physical and chemical properties of s and p block elements across the periods and down the groups; unique behavior of the first element in each group. (TOPIC NOT INCLUDED IN ASSESSMENT) REVISION	- Remembering and understanding: Trends in properties, ionization and Hydration enthalpy. - Analyzing and Applying: Electronic configuration, Chemical properties of s and p block elements - Critical thinking ability: Behavior of first element in each group	
February	15		REVISION		
ANNUAL EXAM			COMPLETE SYLLABUS		

QUESTION PAPER PATTERN (MID-TERM & ANNUAL)

Sl. No.	Sections	Mark Allotted
1.	Section - A: MCQs and A & R	1 X 16 = 16
2.	Section - B: Very short questions with internal choice (2 marks questions)	2 X 5 = 10
3.	Section - C: Short questions with internal choice (3 marks questions)	3 X 7 = 21
4.	Section - D: Case based questions	4 X 2 = 8
5.	Section - E: Long questions with internal choice (5 marks questions)	5 X 3 = 15
Total Marks		70
6.	PRACTICAL	30
Grand Total		100

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

INVESTIGATORY PROJECTS:

- Checking the bacterial contamination in drinking water by testing sulphide ion.
- Study of the methods of purification of water
- Testing the hardness, presence of Iron, Fluoride, Chloride, etc., depending upon the regional variation in drinking water and study of causes of presence of these ions above permissible limit (if any).
- Investigation of the foaming capacity of different washing soaps and the effect of addition of Sodium carbonate on it.
- Study the acidity of different samples of tea leaves.
- Determination of the rate of evaporation of different liquids.
- Study the effect of acids and bases on the tensile strength of fibers.
- Study of acidity of fruit and vegetable juices.

QUESTION PAPER DESIGN FOR PRACTICALS:

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

QUESTION PAPER TYPOLOGY: XI

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.

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	Introduction – Biology and its branches and its importance. 1. The Living World Biodiversity; Need for classification; three domains of life; taxonomy and systematics; concept of species and taxonomical hierarchy; binomial nomenclature 2: Biological Classification Five kingdom classification; Salient features and classification of Monera, Protista and Fungi into major groups; Lichens, Viruses and Viroids.	- Understanding the characteristics of living organisms, their diversity, and the principles of taxonomy and classification, including analysis, critical thinking, and problem-solving - The learner have learnt and understood about the structure, habitat, physiology , life cycle and economic importance of different organisms of Kingdom- Monera, Protista, Fungi, Plant kingdom	- Chart on Taxonomic Hierarchy - Diagrams of TMV, Bacteriophages, shapes of bacteria - Project on - Kingdom Monera, Protista and Fungi,
May	10	10	3: Plant Kingdom Classification of plants into major groups; Salient and distinguishing features and a few examples of Algae, Bryophyta, Pteridophyta, Gymnospermae and Angiosperms	Students develop skills in classifying plants, understanding their characteristics, life cycles, and reproductive strategies, along with identifying different plant groups and their economic importance	Projects on-Algae, Bryophytes, Pteridophytes
June	11	10	4: Animal Kingdom Salient features and classification of animals, non-chordates up to phyla level and chordates upto class level (salient features and at a few examples of each category). (No live animals or specimen should be displayed). 5: Morphology of Flowering Plants Morphology of different parts of flowering plants: root, stem, leaf, inflorescence, flower, fruit and seed. Description of family Solanaceae	- To emphasize on development of observational, analytical skills and inculcating values like Responsibility, Coordination and Collaboration, Creativity, Awareness, Concerns - Understands and to study of various external features of the plant including the root system, stems, leaves, flowers, fruits and seeds.	- Phylum of animal kingdom. - Phylum all Topics structure of Root system, shoot system, leaf flower, aestivation, placentation
July	26	15	6: Anatomy of Flowering Plants Anatomy and functions of tissue systems in dicots and monocots. Chapter-7: Structural Organisation in Animals Morphology, Anatomy and functions of different systems (digestive, circulatory, respiratory, nervous and reproductive) of frog.	Understanding plant tissue types, internal structures of roots and stems, and the differences between monocot and dicot plants, along with secondary growth.	- Make a chart of Dicot and monocot root, stem and leaf. - List out the differences between the above. - Project on different types of tissues their

UNIT TEST-I			CH-1, 2, 3, 4		
August	22	20	9: Biomolecules Chemical constituents of living cells: biomolecules, structure and function of proteins, carbohydrates, lipids, and nucleic acids; Enzyme - types, properties, enzyme action. (Topics excluded: Nature of Bond Linking Monomers in a Polymer, Dynamic State of Body Constituents Concept of Metabolism, Metabolic Basis of Living, The Living State) Chapter-10: Cell Cycle and Cell Division Cell cycle, mitosis, meiosis and their significance 11: Photosynthesis in Higher Plants Photosynthesis as a means of autotrophic nutrition; site of photosynthesis, pigments involved in photosynthesis (elementary idea); photochemical and biosynthetic phases of photosynthesis; cyclic and non-cyclic photophosphorylation; chemiosmotic hypothesis; photorespiration; C₃ and C₄ pathways; factors affecting photosynthesis.	- Understand the structure, function, and importance of key molecules like carbohydrates, proteins, lipids, and nucleic acids in plants, including their roles in biological processes and metabolism. - Understand and analyze the fundamental processes of cell growth, division, and reproduction, including mitosis and meiosis. - Understanding the process of photosynthesis, including its two phases, light-dependent and light-independent reactions, and factors affecting it, as well as the role of pigments and structures involve.	- Differentiate between mitosis and meiosis. - Chart paper work of stages of mitosis and meiosis. - Projects on- - Calvin Cycle and Hatch slack pathway - Photorespiration
September	23	12	12: Respiration in Plants Exchange of gases; cellular respiration - glycolysis, fermentation (anaerobic), TCA cycle and electron transport system (aerobic); energy relations - number of ATP molecules generated; amphibolic pathways; respiratory quotient. 13: Plant - Growth and Development Seed germination; phases of plant growth and plant growth rate; conditions of growth; differentiation, dedifferentiation and	- Understanding the process of respiration as a cellular process, analyzing different types of respiration (aerobic and anaerobic), and identifying the key stages of cellular respiration like glycolysis, the Krebs cycle, and the electron transport chain. - Understanding how growth takes place and can be enhanced with help of growth hormones.	- Project on- Glycolysis, Krebs cycle and Electron Transport System. - Chart paper work on types of Growth hormones, their functions and examples.

			redifferentiation; sequence of developmental processes in a plant cell; plant growth regulators - auxin, gibberellin, cytokinin, ethylene, ABA • REVISION		
MID – TERM EXAM			CH 1 TO 11		
October	18	16	14: Breathing and Exchange of Gases Respiratory organs in animals (recall only); Respiratory system in humans; mechanism of breathing and its regulation in humans - exchange of gases, transport of gases and regulation of respiration, respiratory volume; disorders related to respiration - asthma, emphysema, occupational respiratory disorders. 15: Body Fluids and Circulation Composition of blood, blood groups, coagulation of blood; composition of lymph and its function; human circulatory system - Structure of human heart and blood vessels; cardiac cycle, cardiac output, ECG; double circulation; regulation of cardiac activity; disorders of circulatory system - hypertension, coronary artery disease, angina pectoris, heart failure.	- Understanding the respiratory system, including identifying structures, explaining the mechanism of breathing, and understanding gas exchange processes. - Understand the composition and functions of blood and lymph, the structure and function of the heart and blood vessels, and the mechanisms of circulation, including lymphatic system function.	Make neat well labelled diagram of Human Lungs and human heart, mention different parts and their functions.
November	23	21	16: Excretory Products and their Elimination Modes of excretion - ammonotelism, ureotelism, uricotelism; human excretory system – structure and function; urine formation, osmoregulation; regulation of kidney function - renin - angiotensin, atrial natriuretic factor, ADH and diabetes insipidus; role of other organs in excretion; disorders - uremia, renal	- Understand the modes of excretion, the human excretory system, structure and function of urine formation, disorders - To apply the learning to determine the effect of contractile proteins and Ca^{+2} in muscle contraction. Able to differentiate between male and female bone. Able to evaluate tetany, muscular dystrophy,	Make a short video on different parts of excretory organs of body. Make a note of all parts, structure and function of

			failure, renal calculi, nephritis; dialysis and artificial kidney, kidney transplant. 17: Locomotion and Movement Types of movement - ciliary, flagellar, muscular; skeletal muscle, contractile proteins and muscle contraction; skeletal system and its functions; joints; disorders of muscular and skeletal systems - myasthenia gravis, tetany, muscular dystrophy, arthritis, osteoporosis, gout.	arthritis, osteoporosis, gout.	Skeletal system and different types of bones.
December	20	15	18: Neural Control and Coordination Neuron and nerves; Nervous system in humans - central nervous system; peripheral nervous system and visceral nervous system; generation and conduction of nerve impulse		Structure of brain, neuron, nerve impulses and their function.
UNIT TEST-II			CH- 15,16,17,18		
January	22	12	19: Chemical Coordination and Integration Endocrine glands and hormones; human endocrine system - hypothalamus, pituitary, pineal, thyroid, parathyroid, adrenal, pancreas, gonads; mechanism of hormone action (elementary idea); role of hormones as messengers and regulators, hypo - and hyperactivity and related disorders; dwarfism, acromegaly, cretinism, goiter, exophthalmic goitre, diabetes, Addison's disease. REVISION PRACTICAL EXAM	Able to analyse and interpret the cause of different hormonal diseases.	To prepare project on patient suffering. From different types of hormonal disorders and paste pictures for the same.
February	14	10	REVISION ANNUAL EXAM		
ANNUAL EXAM			WHOLE SYLLABUS		

SL. NO.	SECTIONS	MARKS ALLOTTED
1	Section - A: (MCQs, Assertion – Reasoning type questions)	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	Practical Marks	30 Marks
Grand Total		100 Marks

PRACTICAL EVALUATION SCHEME

Time: 03 Hours

Max. Marks: 30

Evaluation Scheme		Marks
One Major Experiment Part A (Experiment No- 1,3,7,8)		5 Marks
One Minor Experiment Part A (Experiment No- 6,9,10,11,12,13)		4 Marks
Slide Preparation Part A (Experiment No- 2,4,5)		5 Marks
Spotting Part B		7 Marks
Practical Record + Viva Voce	(Credit to the student's work over the academic session may be given)	4 Marks
Project Record + Viva Voce		5 Marks
Total		30 Marks

Question Paper Design (Theory)

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

TPOLOGY 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.

INFORMATICS PRACTICES (065)

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	17	Unit 1: Introduction to Computer and computing: Introduction to computer Basic Components of a Computer, Evolution of Computing device. Computer Memory: Units of memory, types of memory – primary and secondary, Data Deletion, its recovery and related security concerns. Software: system and application software	Understanding the concept of Computer and Identifying different components of a Computer. Understanding the need of Memory in Computing Devices. Understanding the different Software used for different purposes.	- Activities from Textbook - Identify the components of computer system.
May	04	04	Software: Generic and Specific purpose software.		- Activities from Textbook - Identify the components of Computer system.
June	11	13	Unit 2: Introduction to Python: Basics of Python programming, execution modes: - interactive and script mode, the structure of a program, indentation, Identifiers, keywords, constants, variables.	Understanding the terms used in Python Programming Language.	PROGRAMS - To find average and grade for given marks. - To find sale price of an item with given cost and discount (%).
July	26	18	Python (continue...): Types of operators, precedence of operators, Data types, mutable and immutable data types, statements, expression evaluation, comments, input and output statements, data type conversion, debugging. REVISION	Ability to grasp core Python syntax like variables, data types along with problem-solving skills. Understanding the fundamental tools for controlling the flow of execution in a program.	- To calculate perimeter/circumference and area of shapes such as triangle, rectangle, square and circle. - To calculate Simple and Compound interest. - To calculate profit-loss for given Cost and Sell Price.
UNIT TEST-I			UNIT-1, UNIT-2 (Till taught)		
August	22	24	Python (continue...): Control Statements: if-else, if-elif- else, while loop, for loop. Lists: list operations - creating, initializing, traversing and manipulating lists, list methods. built-in functions : len(),list(),append(),insert(), count(),index(),remove(), pop(), reverse(), sort(),min(),max(),sum() Dictionary: concept of key-value pair, creating, initializing, traversing, updating and deleting elements,	Ability to create a List in Python and working with Elements by using different functions. Ability to create a Dictionary in Python and	- To find the largest and smallest numbers in a list. - To find the third largest/smallest number in a list. - To find the sum of squares of the first 100 natural numbers.

			dictionary methods	working with Key Value pairs.	
September	23	10	built-in functions – dict(), len(), keys(), values(), items(), update(), del(), clear() Introduction to NumPy: Introduction, Creation of NumPy Arrays from List REVISION	Ability to work with different dictionary functions Understanding the concept of numerical functionalities in python.	• Create a dictionary to store names of states and their capitals. • Create a dictionary of students to store names and marks obtained in 5 subjects.
MID – TERM EXAM & MID-PRACTICAL EXAM			UNIT-1, UNIT-2 (Till Taught)		
October	18	15	UNIT:3 Database Concepts: Introduction to database concepts and its need, Database Management System. Relational data model: Concept of domain, tuple, relation, candidate key, primary key, alternate key Advantages of using SQL, DDL, DQL and DML, Introduction to MySQL, creating a database using MySQL, Data Types,	Creating, manipulating, and analyzing multi-dimensional arrays, performing numerical computations, utilizing mathematical functions Understand database concepts and Relational Database Management Systems.	• To create a database • To create student table with the student id, class, section, gender, name, dob, and marks as attributes where the student id is the primary key.
November	23	25	Data Definition: CREATE DATABASE, CREATE TABLE, DROP, ALTER Data Query: SELECT, FROM, WHERE with relational operators, BETWEEN, logical operators, IS NULL, IS NOT NULL Data Manipulation: INSERT, DELETE, UPDATE	Retrieve and manipulate data in RDBMS using Structured Query Language.	• To insert the details of at least 10 students in the above table. • To display the entire content of table. • To display Rno, Name and Marks of those students who are scoring marks more than 50. • To display Rno, Name, DOB of those students who are born between '2005- 01- 01' and '2005-12-31'.
December	20	15	Unit 4: Introduction to the Emerging Trends: Artificial Intelligence, Machine Learning, Natural Language Processing, Immersive Experience (AR, VR), Robotics, Big data and its characteristics, Internet of Things (IoT), Sensors, Smart cities. REVISION	Identify the Emerging trends in the fields of Information Technology.	Activities from Textbook
UNIT TEST-II			UNIT-2,UNIT-3		
January	22	12	Unit 4: Introduction to the Emerging Trends: Cloud Computing and Cloud Services (SaaS, IaaS, PaaS); Grid Computing, Block chain technology. Revision of All Units Practical Exam		
February	09	5	ANNUAL EXAMINATION		
ANNUAL EXAM			UNIT-1, UNIT-2,UNIT-3,UNIT-4		

QUESTION PAPER PATTERN

SLNO	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
6	Practical Marks	30 Marks
GRAND TOTAL		100 MARKS

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

PRACTICAL EVALUATION SCHEME:

Duration: 3 HRS

Maximum Marks: 30

Evaluation Scheme for Examination	MARKS
Problem solving using Python programming Language	11
Creating database using MySQL and performing Queries	7
Practical File	7
Viva-voce	5
TOTAL	30

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%

PHYSICAL EDUCATION

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	<u>Unit- 1, Changing Trends and Careers in Physical Education.</u> 1. Concept, Aims & Objectives of Physical Education. 2. Development of Physical Education in India – Post Independence. 3. Changing Trends in Sports- playing surface, wearable gear and sports equipment, technological advancements. 4. Career options in Physical Education 5. Khelo-India Program and Fit – India Program <u>Unit- 2, Olympism Value Education.</u> 1. Olympism – Concept and Olympics Values. 2. Olympic Value Education – Joy of Effort, Fair Play, Respect for Others, Pursuit of Excellence, Balance Among Body, Will & Mind. 3. Ancient and Modern Olympics. 4. Olympics - Symbols, Motto, Flag, Oath, and Anthem.	1. To understand the meaning, aims, and objectives of Physical Education. 2. Development of sports surfaces, wearable gear, sports equipment, and technology. 3. To make students know the different career options available in the field of P.E. 4. To make them know about the Khelo India Program. 1. Concepts and Olympics Values (Excellence, Friendship & Respect) 2. To make students learn about Olympic Value Education – Joy of Effort, Fair Play, Respect for Others, Pursuit of Excellence, Balance among Body, Will & Mind. 3. To make the students aware of Olympics - Symbols, Motto, Flag, Oath, and Anthem	
May	04	04	<u>Unit- 2, Olympism Value Education.</u> 1. Olympic Movement Structure - IOC, NOC, IFS, Other members.	1. Understanding the working and functioning of IOC, NOC and IFS, and other members.	

June	10	08	<u>Unit- 3, Yoga.</u> 1. Meaning and importance of Yoga. 2. Introduction to Astanga Yoga. 3. Yogic Kriyas (Shat Karma) 4. Pranayama and its types. 5. Active Lifestyle and stress management through Yoga.	1. To teach students about yogic kriya, specially shat karmas. 2. To make the learn and practice types of Pranayama 3. To make them learn the importance of yoga in stress management.	1. Specialization: Football, Volleyball 2. Record preparation for Special Game for Practical.
July	15	12	<u>Unit- 4, Physical Education and Sports for Children with Special Needs.</u> 1. Concept of Disability and Disorder. 2. Types of Disability, its causes & nature. 3. Disability Etiquette 4. Aim and objectives of Adaptive physical Education 5. Role of various professionals for children with special needs • Revision for UT-I.	1. To make the students aware about the concept of Disability and Disorder. 2. To make students aware of different types of disabilities. 3. Understand the aims and objectives of Adaptive Physical Education. 4. Understanding the role of various professionals for children with special needs.	1. Specialization: Basketball, Cricket. 2. Record preparation for Special Game for Practical.
UNIT TEST-I			Unit- 1, Changing Trends and Careers in Physical Education. Unit- 2, Olympism Value Education. Unit- 3, Yoga. Unit- 4, Physical Education and Sports for Children with Special Needs.		
August	16	16	<u>Unit- 5, Physical Fitness, Wellness, and Lifestyle.</u> 1. Meaning & importance of Wellness, Health, and Physical Fitness. 2. Components/ Dimensions of Wellness, Health, and Physical Fitness 3. Traditional Sports & Regional Games for promoting wellness. 4. Leadership through Physical Activity and Sports. 5. Introduction to First Aid – PRICE.	1. Understand the Meaning & importance of Wellness, Health, and Physical Fitness. 2. To make students aware of the Components/ Dimensions of Wellness, Health, and Physical Fitness. 3. To develop Leadership qualities through Physical Activity and Sports in students. 4. To learn First Aid and its management skills.	1. Yogic Asana and its process. 2. Record preparation for practical Exam.

September	12	10	<u>Unit- 6, Test, Measurement & Evaluation.</u> 1. Define Test, Measurements and Evaluation. 2. Importance of Test, Measurements and Evaluation in Sports. 3. Calculation of BMI, Waist – Hip Ratio, Skin fold measurement (3-site) 4. Somato Types (Endomorphy Mesomorphy & Ectomorphy). 5. Measurements of health- related fitness. • Revision for Mid-Term Examination.	1. To introduce the students with the terms like test, measurement and evaluation along with its importance. 2. To Introducing them the methods of calculating BMI, Waist- hip ratio and Skin fold measurement 3. To make the students aware of the different somato types. 4. To make the students learn the method to measure health- related fitness.	1. SAI Khelo India Fitness Test practice for practical exam. 2. Record preparation for practical exam.
MID – TERM EXAM & PRACTICAL EXAM.			Unit- 1, Changing Trends and Careers in Physical Education. Unit- 2, Olympism Value Education. Unit- 3, Yoga. Unit- 4, Physical Education and Sports for Children with Special Needs. Unit- 5, Physical Fitness, Wellness, and Lifestyle. Unit- 6, Test, Measurement & Evaluation.		
October	16	14	<u>Unit- 7, Fundamentals of Anatomy, Physiology in Sports.</u> 1. Definition and importance of Anatomy and Physiology in Exercise and Sports. 2. Functions of Skeletal System, Classification of Bones, and Types of Joints. 3. Properties and Functions of Muscles. 4. Structure and Functions of Circulatory System and Heart. 5. Structure and Functions of Respiratory System.	1. learn the meaning and definition & identify the importance of anatomy, physiology, and kinesiology. 2. Understanding the main functions and Classification of Bone and the Types of Joints. 3. To learn the Properties and Functions of Muscles. 4. To learn the Structure and Functions of the Circulatory System, Heart and Respiratory System.	1. SAI Khelo India Fitness Test practice for practical exam. 2. Record preparation for practical exam.
November	23	18	<u>Unit- 8, Fundamentals of Kinesiology and Biomechanics in Sports.</u> 1. Definition and Importance of Kinesiology and Biomechanics in Sports. 2. Principles of Biomechanics. 3. Kinetics and Kinematics in Sports.	1. Learning the meaning and definition & identify the importance of Kinesiology and Biomechanics in sports. 2. To make the students learn the principles of biomechanics. 3. To understand the concept of Kinetics and Kinematics in Sports.	

			- Types of Body Movements - Flexion, Extension, Abduction, Adduction, Rotation, Circumduction, Supination & Pronation. - Axis and Planes – Concept and its application in body movements	- Learning about different types of body movements. - To understand the concept of Axis and Planes and its application in body movements.	
December	20	15	<u>Unit- 9, Psychology and Sports.</u> - Definition & Importance of Psychology in Physical Education & Sports; - Developmental Characteristics at Different Stages of Development. - Adolescent Problems & their Management. - Team Cohesion and Sports. - Introduction to Psychological Attributes: Attention, Resilience, Mental Toughness. - Revision for UT-II.	- The students will identify the definition and importance of Psychology in Physical Education and sports. - Students will be able to identify the issues and management related to adolescents. - The students will be able to understand the importance of team cohesion in sports. - Students will distinguish different Psychological Attributes.	
UNIT TEST-II			Unit- 7, Fundamentals of Anatomy, Physiology in Sports. Unit- 8, Fundamentals of Kinesiology and Biomechanics in Sports. Unit- 9, Psychology and Sports.		
January	22	15	<u>Unit- 10, Training & Doping in Sports.</u> - Concept and Principles of Sports Training. - Training Load: Over Load, Adaptation, and Recovery. - Warming-up & Limbering Down – Types, Method & Importance. - Concept of Skill, Technique, Tactics & Strategies. - Concept of Doping and its disadvantages.	- To make the students aware about of concepts and principles of sports training, Training Load, Over Load, Adaptation, and Recovery. - To make students Understand the importance of warming up and limbering down exercises and to introduce the terms like Skills, Techniques, Tactics, and Strategies. - To make students aware of the doping substances and their disadvantages in sports.	

February	23		- Revision for Annual Examination. - Practical Examination.	Complete Syllabus.	
ANNUAL EXAM			Unit- 1, Changing Trends and Careers in Physical Education. Unit- 2, Olympism Value Education. Unit- 3, Yoga. Unit- 4, Physical Education and Sports for Children with Special Needs. Unit- 5, Physical Fitness, Wellness, and Lifestyle. Unit- 6, Test, Measurement & Evaluation. Unit- 7, Fundamentals of Anatomy, Physiology in Sports. Unit- 8, Fundamentals of Kinesiology and Biomechanics in Sports. Unit- 9, Psychology and Sports. Unit- 10, Training & Doping in Sports.		

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 (034)

Month	No Of Days	NO OF PERIODS	TOPICS TO BE COVERED	SKILLS COVERED	Activities / Projects / Practical
April	23	9	1- Brief study of the following: Nada, Shruti, Swar, Saptak, Thaata, Jati, Laya, Tala	FUNDAMENTAL OF MUSIC	Practical skill Alankar
May	4	1	2- Alankar	VOCAL FORMS	complex Alankar
June	11	3	3-Brief study of the following: Margi- Desi Sangeet, Raga Raga Bihag details	DEPTH KNOWLEDGE OF MUSICAL TERMS	Raag Bihag Aron avroh Pakad
July	26	12	4-Chhota Khayala of Raag Bihag with Alap taan 5-Brief History of the following Dhrupad, Khayal and Tarana REVISION	PRACTICAL KNOWLEDGE OF RAAG DIFFERENT SINGING STYLE	Chhota Khayala of Bihag
UNIT TEST			All Topics From 1-3		
August	22	9	6-Description of prescribed Talas along with Tala Notation with Thah, Dugun and Chaugun Teentala Ektala Chautala 7- Life sketch and contribution of Tansen, V.N. Bhatkhande and V.D.Paluskar	EXPLAINING STRUCTURE OF TAAL UNDERSTANDING THE LIFE OF MUSICIANS	All taal knowledge And showing taal by hand gesture
September	23	9	Revision for Mid Term		
MID TERM AND PRACTICAL EXAM			ALL TOPICS FROM 1-7		
October	18	6	8-One Drut Khayal with simple elaboration and few tanas in Raag Bhimpalasi 9-Knowledge of the Structure of Tanpura	PRACTICAL KNOWLEDGE OF RAAG Tuning and structure of Tanpura	Singing Raag Bhimpalasi in detail
November	23	9	10-Brief study of Musical Elements in Natya Shastra 11-Critical study of Prescribed Ragas. Recognizing Ragas from phrases of Swaras and elaborating them.	Identifying the raga by its Swara	

December	20	9	Revision for Periodic Test 2	Riyaz of Ragas	
UNIT TEST 2			Syllabus- All topics from 8-11		
January	20	9	12- Introduction of raga Bhairavi and One Drut Khayal with simple elaboration and few tanas in Raag Bhairavi Final Practical Exam	Singing Raag Bhairavi in detail	
February	15	9	REVISION OF WHOLE SYLLABUS	Riyaz of Raagas Project ,all ragas,all taal	
FINAL 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 (Drut Khyal) any one	18
Examiner's Choice of Ragas	10
Devotional song	16
Identification of Ragas	6
Reciting the Thekas of Prescribed Talas with hand beats with Thah and Dugun and Chaugun: Teen Taal Ek Taal Chautal	10
Tuning of Tanpura and questions regarding it	5
Project File	5
TOTAL PRACTICAL MARKS	70
Grand Total	100

ASSESSMENT PATTERN-XI

The school will conduct the Annual Scheme of Assessment at the end of the Academic Session.

COMPOSITION OF QUESTION PAPER

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%

(UT/MID-TERM/FINAL TERM) EXAMINATION PATTERN: SCHOLASTIC

TERM	ASSESSMENT	MONTH	FULLMARKS	AGGREGATE	FINAL ASSESSMENT
TERM-I	UNIT TEST-I	JULY	40	10	10 (UT-I) + 30 +10 = 50
	MID-TERM	SEPTEMBER	Theory (30/70/80) Practical (70/30/20)	T - 30 P - 10	
TERM-II	UNIT TEST-II	NOVEMBER	40	10	10 (UT-II) + 30 +10 = 50
	ANNUAL EXAM	FEBRUARY	Theory (70/80) Practical (30/20)	T - 30 P - 10	
Annual Aggregate: Term-I (50) + Term-II (50) = 100					

Kindly note for class XI, students must clear all assessments, including Unit Tests, Mid-Term and Annual Exam (both theory & practical) to be promoted to STD - XII. Promotion will be granted on appearing & securing pass mark in all subjects in theory as well as practical (Annual & Aggregate).

However, to ensure the regular revision of concepts and to avoid learning gap, the school will conduct regular class test to monitor 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.