CARMEL
JAMMU

SYLLABUS FOR 2024-25
Class:- XI

CLASS	XI	BOOKS	BEEHIVE MOMENTS
SUBJECT	ENGLISH	PUBLISHERS	NCERT NCERT

TERM-1

MONTH	CHAPTER	LESSON	TOPIC	GRAMMAR PORTION	No. OF PERIODS	WEHITAGE
April	1	The Portrait of Lady	Prose	Tenses		Reading Section 26 marks
	1	Summer of the Beautiful Horse	Short Story	Poster		
	1	A Photograph	Poem			
May	2	We Are Not Afraid to Die	Prose	Conditional clauses Advertisements		
	2	The Address	Short story	Determiners		
July-Aug	3	Discovering the Tut : The Saga Continues	Prose	Punctuation		
	3	Ranga's Marriage	Short Story	Notices		
	3	The Laburnum Top	Poem			
September	4	The Landscape of the Soul	Prose	Modals Corrections		Creative writing skills 23 marks
	4	Albert Einstine At School	Short Story	Note Making		
	4	The voice of the Rain	Poem			
October	5	The Ailing Planet: The Green Movement's Role	Prose	E-mail Letter Writing		
		REVISION FOR T1				
		TERM 1 EXAMS				

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TERM-2

MONTH	CHAPTER	LESSON	TOPIC	GRAMMAR PORTION	No. OF PERIODS	WEHIT AGE
November	5	Mother's DAY	Play	Conjunctions		Literature 31 marks
	6	Childhood	Poem	Letter Writing		
December	6	Browning Version	Play	Subject Verb Aagreement		
	6	The Ghat of The Only World	Autobiogr aphy	Preposition		
	8	The Tale of the Melon City	Poem	EssayWriting		Total 80 marks
January /Febrauary	7	The Adventure	Prose	Paragraph writing		
	7	Birth	Short story	-------		
	8	Silk Road	Prose	---------		
	8	Father to Son	Poem	------		

Principal
Carmel Convent School
Kunjwani, Jammu

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CLASS	XI	BOOKS	Aaroh Vitaan
SUBJECT	HINDI	PUBLISHERS	NCERT

TERM-1

MONTH	CHAPTER NAME	TOPIC / SUB TOPIC	ACTIVITY	GRAMMAR	NO. OF PERIODS	WEIGH TAGE
अप्रैल	भारतीय गायको में बेजोड़ - लता मंगेशकर (कुमारगंधर्व) हम तो एक - एककरिजांनां (कबीर) मेरेतोगिरधरगोपाल, दूसरोनकोई (मीरा)	विधा - गद्य (लेख / निबंध) सारांश - लेखक ने स्वरसाम्राज्ञी लता मंगेशकर की गायकी पर बेबाक टिप्पणी की है		लता मंगेशकर की जीवनीअपने शब्दोंमेंलिखिए		पठित बोध अपठित बोध	15 Periods	15 Marks
मई	अपूकेसाथढाईसाल (सत्यजीत राय)	विधा - गद्य लोककथा सारांश - इस पाठ का भाषांतर बांग्ला मूल से 'विलास गिते' ने किया है। किसी फ़िल्मकार के लिए उसकी पहली फ़िल्म एक अबूझ पहेली होती है।	' अप्पू के साथ ढाई साल ' संस्मरण का प्रतिपादय बताइए।	अनुच्छेद लेखन	7 Periods	10 Marks
जून	मियाँनसीरुद्दीन (कृष्णा सोबती)	3. विधा - गद्य सारांश - मियाँ नसीरुद्दीन शब्दचित्र हम - हशमत नामक संग्रह से लिया गया है। इसमें खानदानी नानबाई मियाँ नसीरुद्दीन के व्यक्तित्व, रुचियों और स्वभाव का शब्दचित्र खींचा गया है		लेखिकाकृष्णा सोबतीकीप्रमु खरचनाओंका वर्णनकिजिए	अपनेशब्दोंमें		रचनात्मक लेखन	6 Periods	8 Marks
अगस्त	राजस्थान की रजतबूँदें (अनुपम मिश्र) गजल (दुष्यंत कुमार	4. सारांश - इसमें राजस्थान के मरुस्थल में पाई जाने वाली कुईं के बारे में बताया गया है जिसका उपयोग पानी संग्रक्षण के लिए किया जाता है		राजस्थान के भौगोलिक क्षेत्र का वर्णन कीजिए		कथा - पटकथा	15 Periods	10 Marks

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	)				15 Periods	5 Marks
सितंबर	आओ, मिलकरबचाएं (निर्मलापुतुल) घर की याद (भवानी प्रसाद मिश्र	5. विधा - पद्य सारांश - लोगों से आग्रह करती है कि लोग शहरी सभ्यता की आड़ में ना पले।	घर की याद कविता से क्या प्रेरणा मिलती है? 100 शब्दोंमेंलिखिए		स्ववृत्त (बायोडाटा) लेखन		

TERM-2

MONTH	CHAPTER NAME	TOPIC / SUB TOPIC	ACTIVITY	GRAMMAR	NO. OF PERIODS	WEIGH TAGE
अक्टूबर	सबसे खतरनाक (अवतार सिंह संधू) विदाई - संभाषण (बालमुकुंद गुप्त)	6. विधा - गद्य (निबंध) सारांश - इस पाठ में लेखक ने लॉर्ड कर्जन के भारत छोड़ने पर व्यंग्यात्मक ढंग से उनकी विदाई का वर्णन किया है		माज के कुछ आदर्शवादी लोगों के आदर्शों पर परिचर्चा करेंगे अथवा महात्मा गांधी के विषय पर एक अनुच्छेद लिखेंगे		जनसंचार माध्यम और पत्रकारिता के विविध आयाम	20 Periods	13 Marks
नवंबर	आलो - आंधारि (बेबी हालदार) भारत माता (जवाहरलाल नेहरू)	7.विधा - गद्य (संस्मरण) सारांश - लेखिका की आत्मकथा है, इसका अर्थ है – अँधेरे का उजाला, यह समाज की करोड़ों झुग्गियों की कहानी है		भारत माता पाठ लिखा है भारत के सबसे पहले और पूर्व प्रधानमंत्री श्री जवाहरलाल नेहरू जी परप्रकाशडा लिए		शब्दकोश	10 Periods	7 Marks
दिसंबर	रजनी (मुन्नू भंडारी) गलता लोहा (शेखर	8. विधा - गद्य (कहानी) सारांश - अक्क महादेवी सभी भौतिक	मुन्नू भंडारीएक	पत्र - लेखन (औपचारिक पत्र)	15 Periods	7 Marks

	जोशी) है भूख ! मत मचल, है मेरी जूही के फूल जैसे ईश्वर (अक्क महादेवी)	वस्तुओं को छोड़कर ईश्वर की प्राप्ति करना चाहती है।	अच्छा व्यक्ति था या नहीं इस पर वाद विवाद प्रतियोगिता ।			
जनवरी	नमक का दरोगा (प्रेमचंद) जामुन का पेड़ (कृश्नचंदर) चंपा काले-कालेअच्छरनहींचीन्हती (त्रिलोचन)	9. विधा - गद्य (लेख) सारांश - जामुन का पेड़ हमारी राजनीतिक और प्रशासनिक व्यवस्था पर एक करारा व्यंग्य है।	नमककादरोगामें निहित मानवीय मूल्यों को अपनी भाषा में लिखना ।		25 Days	5 Marks

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CLASS	XI	Publisher	NCERT
SUBJECT	Physics		

TERM-1

MONTH	Unit	LESSON	SUB TOPIC	NO. OF PERIODS	WEIGHT AGE
April	1	Mathematical tools	Need for measurement: Units of measurement; systems of units; SI units, fundamental and derived units. significant figures.	8	23
	1	Units and Measurements	Dimensions of physical quantities, dimensional analysis and its applications.		
May & July	2	Kinematics : Motion in a Straight Line Motion in a Plane	**Motion in a Straight Line** Frame of reference, Motion in a straight line, Elementary concepts of differentiation and integration for describing motion, uniform and non- uniform motion, and instantaneous velocity, uniformly accelerated motion, velocity - time and position-time graphs. Relations for uniformly accelerated motion (graphical treatment). **Motion in a Plane** Scalar and vector quantities; position and displacement vectors, 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.	24	
August	3		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).		

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| August | 4 | Laws of Motion Work, Energy and Power | Work done by a constant force and a variable force; kinetic energy, workenergy 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. | 14 + 14 | |

TERM-2

MONTH	Unit	LESSON	SUB TOPIC	NO. OF PERIODS	WEIGHT AGE
October	5:	Motion of System of Particles and Rigid Body	Centre of mass of a two-particle system, momentum conservation and Centre of mass motion. Centre of mass of a rigid body; centre 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).	18	17
October & November	6 7	Gravitation Properties of Bulk Matter	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 velocity, orbital velocity of a satellite. Elasticity, Stress-strain relationship, Hooke's law, Young's modulus, bulk modulus, shear modulus of rigidity (qualitative idea only), Poisson's ratio; elastic energy. : 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. 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.	24	

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December	8 9:	Thermo dynamic Behaviour of Perfect Gases and Kinetic Theory of Gases	Thermal equilibrium and definition of temperature zeroth law of thermodynamics, heat, work and internal energy. First law of thermodynamics, Second law of thermodynamics: gaseous state of matter, change of condition of gaseous state - isothermal, adiabatic, reversible, irreversible, and cyclic processes. Kinetic Theory 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	12 +8	20
January & February	10	Oscillations and Waves	Periodic motion - time period, frequency, displacement as a function of time, periodic functions and their application. Simple harmonic motion (S.H.M) 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 Waves Wave motion: Transverse and longitudinal waves, speed of travelling wave, displacement relation for a progressive wave, principle of superposition of waves, reflection of waves, standing waves in strings and organ pipes, fundamental mode and harmonics, Beats.	26	10

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CLASS	XI	BOOK	CHEMISTRY
SUBJECT	CHEMISTRY	PUBLISHER	NCERT

TERM-1

MONTH	CHAPTER /LESSON	TOPIC / SUB TOPIC	No of periods	Weight age
April	CH-1-- Some basic concepts of chemistry.	General Introduction: Importance and scope of Chemistry. Nature of matter, laws of chemical combination, Dalton's atomic theory: concept of elements, atoms and molecules. Atomic and molecular masses, mole concept and molar mass, percentage composition, empirical and molecular formula, chemical reactions, stoichiometry and calculations based on stoichiometry.	12	7
May	CH-2 Structure of atom	Discovery of Electron, Proton and Neutron, atomic number, isotopes and isobars. Thomson's model and its limitations. Rutherford's model and its limitations, Bohr's model and its limitations, concept of shells and subshells, dual nature of matter and light, de Broglie's relationship, Heisenberg uncertainty principle, 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.	14	9
July	CH-3 Classification of elements	Significance of classification, 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 with atomic number greater than 100	8	4

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Month	Chapter	Topics		
August	CH-4 Chemical bonding and molecular structures	Valence electrons, ionic bond, covalent bond, bond parameters, Lewis structure, polar character of covalent bond, covalent character of ionic bond, valence bond theory, resonance, geometry of covalent molecules, VSEPR theory, concept 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.	14	7
September	CH 6 - Chemical Equilibrium	Equilibrium in physical and chemical processes, dynamic nature of equilibrium, law of mass action, equilibrium constant, factors affecting equilibrium - Le Chatelier's principle,	6	6
October	CH6---Ionic Equilibrium	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).	16	7
November	CH 7 ---> Redox Reaction	Concept of oxidation and reduction, redox reactions, oxidation number, balancing redox reactions, in terms of loss and gain of electrons and change in oxidation number, applications of redox reactions.	9	4
	CH-8 GOC	Classification and IUPAC nomenclature of organic compounds. Electronic displacements in a covalent bond: inductive effect, electromeric effect, resonance and hyper conjugation. Homolytic and heterolytic fission of a covalent bond: free radicals, carbocations, carbanions, electrophiles and nucleophiles, types of organic reactions.	20	10
December		Concepts of System and types of systems, surroundings, work, heat, energy, extensive and intensive properties, state functions.		

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December	CH 5--> Chemical thermodynamics	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 equilibrium. Third law of thermodynamics.	16	6
January	CH-9Hydrocarbon	Classification of Hydrocarbons Aliphatic Hydrocarbons: Alkanes - Nomenclature, isomerism, conformation (ethane only), physical properties, chemical reactions including free radical mechanism of halogenation, combustion and pyrolysis. Alkenes - Nomenclature, the 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, the structure of triple bond (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 the functional group in monosubstituted benzene. Carcinogenicity and toxicity	16	10
February	-	Revision	-	-

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CLASS	XI	BOOK	TEXT BOOKOF BIOLOGY
SUBJECT	BIOLOGY	PUBLISHER	NCERT

TERM-1

MONTH	LESSON/ CHAPTER	TOPIC / SUB TOPIC	No. OF PERIODS	WEIGHT AGE
April and May	1.Diversity in living World	**1.The living World** 1.1life and living World 1.1 Concept of Systematics 1.3 Taxonomic categories 1.4 Taxonomical aids **2. Biological Classification** **2.1** Two and five kingdom system of classification. 2.2 kingdom Monera and Protista 2.3 kingdom Plantae 2.4 Kingdom Animalia 2.5 Viruses and Lichens **3. Plant kingdom** 3.1Classification 3.2 Algae 3.3 Bryophyta 3.4 Pteridophytes 3.5 Gymnosperms 3.6 Angiosperms **4. Animal Kingdom** 4.1 General features and Classification 4.2 Phylums of invertebrates 4.3 Phylum Chordata	32	15
July- August	2.Structural Organization in Plants and Animals	**5.Morphology of flowering Plants.** 5.1 Root, Stem and leaves. 5.2 Flower, Fruit and Seed. 5.3 Taxonomic description of important families. **6.Anatomy of flowering Plants** 6.1 Meristematic and Permanent tissues 6.2 The tissue system 6.3 Structure of root and secondary growth. 6.4 Structure of Monocot and Dicot Stem. 6.5 Structure of leaves. **7. Anatomy of few animal types** 8.1 Earthworm, Frog and Cockroach	22	10
September	3.Cell: Structure and function	**8.Cell : The unit of life** 9.1Cell theory and Cell principle 9.2 Prokaryotic and Eukaryotic cell.	30	15

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October		9.3 Plasma membrane and Cell wall. 9.4 Cell organelles 9.5 Nucleus and Cytoplasm **9. Biomolecules** 10.1 Micro and Macromoleculas 10.2 Carbohydrates 10.3 Proteins 10.4 lipids 10.5 Nucleic acids 10.6 Enzymes **10Cell cycle and cell division.** 11.1 Cell Cycle and Cell division 11.2 Mitosis and Meiosis.		

TERM-2

MONTH	LESSON	TOPIC/SUB TOPIC	No. OF PERIODS	WEIGHT AGE
October November	4.Plant Physiology	**11Photosynthesis in higher Plants.** 14.1History of Photosynthesis 14.2 Mechanism of Photosynthesis 14.3 Factors of Photosynthesis **12Respiration in Plants** 15.1Types of Respiration. 15.2 Mechanism of Aerobic Respiration 15.3 Respiratory Quotient. **13.Plant growth and Development.** 16.1Growth 16.2 Growth hormones and Growth Regulators 16.3Photoperiodism and Vernalization	40	12
November and December	5.Human Physiology	**14.Breathing and Exchange of gases** 18.1 Human Respiratory system 18.2 Breathing Mechanism 18.3 Air volumes and Lung capacities. 18.4 Exchange and Transport of gases. 18.5 Disorders of Respiratory system. **15. Body fluids and Circulation** 19.1 Components of blood vascular system 19.2 Blood groups and Blood clotting 19.3 Double Circulation 19.5 Blood pressure 19.5 Lymphatic system. **16..Excretion** 20.1 Excretory organs	40	18

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January		20.2 Human Excretory System 20.3 Nephron 20.4 Physiology of Excretion 20.5 Kidney Disorders 20.6 Kidney Transplantation **17.Locomotion and movements.** 21.1Movements 21.2 Muscle system 21.3 Muscle Contraction 21.4Human skeletal system **18.Neural Control and Coordination** 22.1Nervous tissue. 22.2 Human nervous system 22.2Reflex action 22.3 Nerve impulse 22.4 Disorders of Nervous system 22.5 Eyes		
January		22.6 Ears **19.Chemical Control and Coordination** 23.1Glands and Hormones 23.2 Human endocrine system 23.3Harmones of heart, kidney and liver 23.4 Mechanism of harmones action 23.5 Feedback mechanism		

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CLASS	XI	BOOK	MATHEMATICS
SUBJECT	MATHEMATICS	PUBLISHER	NCERT

Month	Units	Topic	Sub-topic	Marks	Period
April	Sets and Functions	Sets theory	Sets and their representations, Empty set, finite and infinite sets, Equal sets, Subsets, Subsets of a set of real numbers especially intervals(with notations). Universal set. Venn diagrams. Union and intersection of set. Difference of sets. Complement of a set. Properties of complement.	23	20
		Relations and functions	Ordered pairs. Cartesian product of sets. Number of elements in the Cartesian product of two finite sets. Cartesian product of the set of reals with itself (upto R x R x R). Definition of relation, pictorial diagrams, domain, co-domain and range of a relation. Function as a special type of relation. Pictorial representation of a function, domain, co-domain and range of a function. Real valued functions, domain and range of these functions, constant, identity, polynomial, rational, modulus, signum, exponential, logarithmic and greatest integer functions, with their graphs. Sum, difference, product and quotients of functions		20
		Trigonometric functions	Positive and negative angles. Measuring angles in radians and in degrees and conversion from one measure to another. Definition of trigonometric functions with the help of unit circle. Truth of the identity $\sin^2 x + \cos^2 x = 1$, for all x. Signs of trigonometric functions. Domain and range of trigonometric functions and their graphs. Expressing sin (x±y) and cos (x±y) in terms of sinx, siny, cosx&cosy and their simple applications.		20

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May	Continue......	Trigonometric functions	$\tan(x \pm y) = \dfrac{\tan x \pm \tan y}{1 \mp \tan x \tan y}$, $\cot(x \pm y) = \dfrac{\cot x \cot y \mp 1}{\cot y \pm \cot x}$ $\sin\alpha \pm \sin\beta = 2\sin\frac{1}{2}(\alpha \pm \beta)\cos\frac{1}{2}(\alpha \mp \beta)$ $\cos\alpha + \cos\beta = 2\cos\frac{1}{2}(\alpha + \beta)\cos\frac{1}{2}(\alpha - \beta)$ $\cos\alpha - \cos\beta = -2\sin\frac{1}{2}(\alpha + \beta)\sin\frac{1}{2}(\alpha - \beta)$		
	Algebra				
		Complex Numbers	Need for complex numbers, especially $\sqrt{-1}$, to be motivated by inability to solve some of the quadratic equations. Algebraic properties of complex numbers. Argand plane	25	10
		Permutations and Combinations	Fundamental principle of counting. Factorial n. (n!) Permutations and combinations, derivation of Formulae for $^{n}P_{r}$ and $^{n}C_{r}$ and their connections, simple applications.		10
July					
	Continue......	Linear equations	Linear inequalities. Algebraic solutions of linear inequalities in one variable and their representation on the number line.		10
August		**Sequence and Series**	Sequence and Series. Arithmetic Mean (A.M.) Geometric Progression (G.P.), general term of a G.P., sum of n terms of a G.P., infinite G.P. and its sum, geometric mean (G.M.), relation between A.M. and G.M.		20
September		Probability	Events; occurrence of events, 'not', 'and' and 'or' events, exhaustive events, mutually exclusive events, Axiomatic (set theoretic) probability, connections with other theories of earlier classes. Probability of an event, probability of 'not', 'and' and 'or' events.	5	10

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Month	Unit	Topic	Content		
October	Co-ordinate Geometry	Straight lines	Brief recall of two dimensional geometry from earlier classes. Slope of a line and angle between two lines. Various forms of equations of a line: parallel to axis, point-slope form, slope-intercept form, two-point form, intercept form, Distance of a point from a line.	12	50
November		3 D Geometry	Coordinate axes and coordinate planes in three dimensions. Coordinates of a point. Distance between two points and section formula.		
		Conic sections	Sections of a cone: circles, ellipse, parabola, hyperbola, a point, a straight line and a pair of intersecting lines as a degenerated case of a conic section. Standard equations and simple properties of parabola, ellipse and hyperbola. Standard equation of a circle.	08	40
December	Calculus	Limits and Derivatives	Derivative introduced as rate of change both as that of distance function and geometrically. Intuitive idea of limit. Limits of polynomials and rational functions trigonometric, exponential and logarithmic functions. Definition of derivative relate it to scope of tangent of the curve, derivative of sum, difference, product and quotient of functions. Derivatives of polynomial and trigonometric functions.	07	
		Statistics	Measures of Dispersion: Range, Mean deviation, variance and standard deviation of ungrouped/grouped data.		30
		Binomial theorem	Historical perspective, statement and proof of the binomial theorem for positive integral indices. Pascal's triangle, simple applications.		

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CLASS	XI	BOOK	MATHEMATICS
SUBJECT	APPLIED MATHEMATICS	PUBLISHER	ML AGGARWAL

Month	Units	Topic	Sub-topic	Marks	Period
April	ALGEBRA	Sets and functions	Introduction to sets – definition Representation of sets Types of sets and their notations Subsets Intervals Venn diagram Operations on sets	15	45
	ALGEBRA	Relations and function	Ordered pairs Cartesian product of two sets Relations Functions Domain and Range of a function Types of functions Graphical representation of functions		
May	Continue…….	Sequence and series	Sequences and Series Arithmetic progression Geometric progression Applications of AP and GP		
		Permutations & Combinations	Factorial Fundamental Principle of Counting Permutations Combinations		
July	CALCULUS	Limits and Derivatives	Concept of limits and continuity of a function Instantaneous rates of change Differentiation as a process of finding derivative Derivatives of algebraic functions using Chain rule	10	20
August	Coordinate Geometry	Straight lines	Brief recall of two dimensional geometry from earlier classes. Slope of a line and angle between two lines. Various forms of equations of a line: parallel to axis, point - slope form, slope-intercept form, two-point form, intercept form, Distance of a point from a line.	05	15

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		Circles	Define circle Find different forms of equation of circles Solved problems based on applications of circle Define parabola and related terms		
September		Parabolas	Define parabola and related terms Define eccentricity of a parabola Derive equation of parabola		
	Numbers, Quantification And Numerical Application	Numbers and Quantifications	Binary Numbers Indices, Logarithm and Antilogarithm Laws and properties of logarithms Simple applications of logarithm and antilogarithm		
October		Numerical Applications		09	25
November	PROBABILITY MATHEMATICAL REASONING		Averages Clock Calendar Time, Work and Distance mensuration seating arrangement Introduction Random experiment and sample space Event Conditional Probability Total Probability Bayes' Theorem Odd man out Syllogism Blood Relations Coding and Decoding Measure and Dispersion Skewness and Kurtosis Percentile rank and Quartile Rank Correlation	08 06	25 15

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November					
	DESCRIPTIVE STATISTICS		Interest and Interest Rates Accumulation with simple and compound interest Simple and compound interest rates with equivalency Effective rate of interest Present value, net present value and future value	12	35
	FINANCIAL MATHEMATICS		Annuities, calculating value of regular annuity Simple applications of regular annuities (up to 3 period) Tax, calculation of tax and simple applications of tax calculation in Goods and service tax, Income Tax Bills, tariff rates, fixed charge, surcharge, service charge Calculation and interpretation of electricity bill, water supply bill and other supply bills	15	45

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Class:- XI

CLASS	XI	BOOK	PSYCHOLGY (SUBJECT CODE -037)
SUBJECT	PSYCHOLOGY	PUBLISHER	NCERT

Month	Units	Topic	No of Periods	Marks
TERM1				
APRIL	Unit I What is Psychology?	Introduction What is Psychology? Psychologyasa Discipline Psychologyasa Natural Science Psychologyasa Social Science Understanding Mindand Behaviour Popular Notions about the Discipline of Psychology, Evolution of Psychology Development of Psychology inIndia Branches of Psychology Psychology and Other Disciplines Psychologyin EverydayLife	27 Periods	11
MAY	Unit II Methods of Enquiry in Psychology	Introduction Goals of Psychological Enquiry Stepsin Conducting Scientific Research Alternative Paradigms of Research Nature of PsychologicalData SomeImportant Methods in Psychology Observational Method Experimental Method Correlational Research Survey Research, Psychological Testing Case Study	32 Periods	13
		Nature of Psychological Data Some Important Methodsin Psychology Observational Method Experimental Method		

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		Correlational Research Survey Research, Psychological Testing Case Study, Analysisof Data Quantitative Method, Qualitative Method Limitations of Psychological Enquiry EthicalIssues		
JULY	Unit IV Human Development	Introduction Meaning of Development Life-Span Perspective on Development Factors Influencing Development Context of Development Overview of Developmental Stages Prenatal Stage, Infancy Childhood, Challenges of Adolescence Adulthood and Old Age	26 Periods	11
August	Unit V Sensory, Attentional and Perceptual Processes	Introduction Knowing the world Nature and varieties of Stimulus Sense Modalities Function allimitation of senseorgans Attentional Processes Selective Attention, Sustained Attention 6. Perceptual Processes Processing Approaches in Perception The Perceiver Principles of Perceptual Organisation	18 Periods	8
		Perception of Space, Depth and Distance Monocular Cues and Binocular Cues Perceptual Constancies Illusions Socio-Cultural Influences on Perception		
TERM 2				
SEPTEMBER	Unit VI Learning	Learning *Thetopicsinthisunitare:* Introduction Nature of Learning Paradigms of Learning, Classical Conditioning Determinants of Classical Conditioning Operant/Instrumental Conditioning		

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SEPTEMBER	Unit VI Learning	Determinants of Operant Conditioning Key Learning Processes Observational Learning, Cognitive Learning Verbal Learning, Skill Learning Factors Facilitating Learning Learning Disabilities	20 Periods	9
NOVEMBER	Unit VII Human Memory	Human Memory *Thetopicsinthisunitare:* Introduction Nature of memory Information Processing Approach: The Stage Model Memory Systems: Sensory, Short-term and Long-term Memories Levels of Processing Types of Long-term Memory Declarative and Procedural; Episodic and Semantic, Nature and Causes of Forgetting	19 Periods	8
		Forgetting due to Trace Decay, Interference and Retrieval Failure Enhancing Memory, Mnemonicsusing Images and Organization		
DECEMBER	Unite VIII Thinking	Thinking The topics inthisunit are: - Introduction Nature of Thinking, Building Blocks of Thought The Processes of Thinking Problem Solving, Reasoning Decision-making Nature and Process of Creative Thinking Nature of Creative Thinking Process of Creative Thinking Thought and Language Development of Language and Language Use	14 Periods	5

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JANUARY	UNIT IX Motivational and Emotion	Motivation and Emotion Thetopics inthisunitare: Introduction Nature o fMotivation Types of Motives, Biological Motives Psychosocial Motives, Maslow's Hierarchy of Needs Nature of Emotions, Expression of Emotions Culture and Emotional Expression Culture and Emotional Labelling Managing Negative Emotions Enhancing Positive Emotions	14 Periods	5

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Class:- XI

CLASS	XI	BOOK	Informatics Practices - a text book for class XI
SUBJECT	Informatics Practices	PUBLISHER	DhanpatRai& Co.

TERM-1

MONTH	CHAPTER	LESSON	SUB TOPIC	No. of Periods	Weight age
April	Ch 1:	Computer System	1) Introduction to computer and computing 2) Evolution of computing devices 3) functional components of a computer system and their interconnections 4) I/O devices 5) Computer Memory 6) Units of memory 7) Types of memory: primary and secondary 8) Data deletion, its recovery and related security concerns 9) Software: purpose and types – system and application software 10) Generic and specific purpose software.	10	10
	Ch 2:	Emerging Trends	Brief understanding of the following 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 Cloud Computing and Cloud Services (SaaS, IaaS, PaaS) Grid Computing Blockchain technology.	9	5
May &July	Ch 3:	Brief overview of Python	Basics of Python programming Python interpreter - interactive and script mode Structure of a program Indentation Identifiers Keywords Constants Variables	35	5

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			Types of operators Precedence of operators Data types Mutable and immutable data types Statements Expressions Evaluation and comments Input and output statements Data type conversion Debugging Control Statements: if-else, for loop		
August	Ch 4:	Working with Lists and Dictionaries	Lists List operations - creating, initializing, traversing and manipulating lists List methods and built-in functions Dictionary Concept of key-value pair Creating, initializing, traversing, updating and deleting elements Dictionary methods and built-in functions.	25	10

TERM-2

MONTH	CHAPTER	LESSON	SUB TOPIC	No. of Periods	Weightage
October	Ch 5:	Understanding Data	Data and its purpose Importance of data Types of data: Structured and unstructured Structured data types - quantitative and qualitative data Data processing cycle Basic statistical methods for understanding data - Mean, Median, Mode, Standard Deviation and Variance	5	5
October & November	Ch 6:	Data Handling using NumPy	Array - 1D, 2D arrays Introduction to NumPy library NumPy arrays and their advantage Creation of NumPy Arrays Loading text files into Arrays Indexing, Slicing and Iteration Concatenating and Splitting Array Arithmetic operations on 1D, 2D arrays, Calculating max, min, count, sum, mean, median, mode, standard deviation, variance on NumPy arrays	40	5

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December	Ch 7:	Database Concepts	Database Concepts Introduction to database concepts and its need. Relational data model Concept of domain, tuple, relation, candidate key, primary key, alternate key, And foreign key	25	15
January & February	Ch 8:	Structured Query Language	Advantages of using Structured Query Language Introduction to MySQL Creating a database using MySQL Data Types Data Definition: CREATE TABLE, DROP TABLE, ALTER TABLE, Data Query: SELECT, FROM, WHERE Data Manipulation: INSERT, UPDATE, DELETE	40	15

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Class:- XI

CLASS	XI	BOOK	
SUBJECT	PHYSICAL EDUCATION	PUBLISHER	NCERT

TERM-1

MONTH	CHAPTER /LESSON	TOPIC/SUB TOPIC	NO.OF PERIODS	WEIGHT AGE
April	1	Changing trends and career in physical education ,Meaning and definition of Physical Education, aim and objectives of Physical Education, career options in physical education, competition in various sports at national and international level, khelo India programs.	8	07
May	2	Olympic value education/ Ancient Olympic games, Modern Olympics games, Paralympics games, special Olympics games, Olympics symbols, Torch, Motto, Oath. Olympism, Olympics aims and objectives, ideals and values, International Olympics committee, Indian Olympics association.	8	07
July	3	Physical fitness, wellness and lifestyle/Meaning of Physical fitness, wellness,healthy lifestyle, importance of Physical fitness, wellness and healthy lifestyle, components of Physical fitness, speed, strength, flexibility, endurance, and agility. Components of wellness, Components of health related fitness	10	06
August	4, 5	Physical education and sports for children with special needs or divyang/Aims and objectives of adaptive Physical Education, organizations promoting adaptive Physical Education, special Olympics Bharat, Paralympics, deaflympics,concept of inclusion, need of inclusion, role of various professional for children with special needs, role of counsellor, role of occupational therapist, role of physiotherapist, role of Physical Education teacher, special educator. Yoga/Meaning of yoga, importance of yoga, elements of yoga, introduction of Asanas, common yoga asanas, Pranayam, yogic kriyas and meditation benefits, yoga for concentration, yoga for relaxation.	15	6, 6

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September	6	Physical activity and leadership training/introduction, Meaning and types of leaders, qualities of a leader or captain, creating leaders through physical education, role of leader or captain, Meaning of Adventure sports, objectives of Adventure sports, adventure activities like, Rock climbing, Mountaineering, trekking, river rafting, paragliding, causes of sports injuries, safety measures to prevent sports injuries.	8	05
October November	7	Test, Measurements and evaluation/Meaning of test, measurement and evaluation, importance of measurement in sports, body mass index (BMI),waist hip ratio, somato types, measurement of health related fitness .	6	6 ,6

TERM-2

MONTH	CHAPTER/ LESSON	TOPIC/SUB TOPIC	NO.OF PERIODS	WEIGHT AGE
December	8	FundamentalofAnatomyphysiologyandkinesiologyinsports/MeaningMeaning,physiologysystemsofhumanbody,importanceofAnatomyandphysiologyandkinesiology,importanceofkinesiologyandbiomechanicsinsports,skeletalsystem,workingofskeletalsystem,bonesanditsclassification,jointsanditstypes,functionsofskeletalsystem,muscularsystem,propertiesofmuscles,functions,typesofmuscles,mechanismofmuscles,respiratorysystems,workingofrespiratorysystems,mechanismofbreathing,circulatorysystem,structureandworkingofheart,equilibrium,centerofgravity,	18	07
January	9	Psychology and sports/Meaning and definition, Meaning of sports psychology and definition, importance of sports psychology, growth and development, differences between growth, and development, characteristics at different stages of growth, adolescence changes and their needs,problems of adolescence, management of adolescence problems.	12	07
February	10	Training and doping in sports/Meaning and concept of training,principles of sports training, warming up, types of warming up, importance of warming up, limbering down and its importance, terminology used in training proces, Meaning of doping, types of doping, prohibited substances and methods and their side effects, substances abuses and its effects, drugs addiction, effects of drugs addiction.	14	07

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SUBJECT   : LIFE SKILL AND CAREER COUNSELLING

MONTH	SESSION	ACTIVITY
April	Role of a counsellor *New Class New Challenges	"New life New dreams" Class discussion
May	*Adolescence *Behaviour choices *Emotional awareness and coping skills	Reforming myself" "My weakness are now my strengths" Making up a write up
July	*Friendship skills *Personal space *Conflict resolution	My life my priorities" Make your own personal space circle.
August	*listening skills *Communication Skills	Freedom of Expression Free writing or drawing Skills
September	*Academic skills and achievements *Test taking strategies *Examination Stress Management	"Best out of time" Make a Mind map of your study routine
November	*Bulling prevention and awareness *Body image	I love myself group discussion
December	*Personal safety *Tech Safety	Be safe act SMARTLY Making up a wheel of Safety
January	*Goal setting *Problem solving *Decision Making	Appreciating the difference *Mindfulness

CAREER COUNSELING

Month	Session
April	Introduction to career counseling
May	*Importance of Stream choices *Criteria for stream selection
July	*Careers in PCB *Careers in PCM *Careers in PCMB
August	*Careers in Humanities *Careers in Commerce
September	Best practices for.... NEET JEE CLAT CUET

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November	Career in sports Careers in Architecture Careers in PCB other than medicine
December	Careers in Hospitality and Tourism Careers in Defiance Careers in Aviation Careers in Mass Media and Communication
January	New age Careers

Special Session will also be conducted for the students depending upon their career choices

SYLLABUS FOR 2024-25
Class:- XI

CLASS	XI	PAINTING	BOOK	PANORAMIC INDIAN PAINTING
SUBJECT	FINE ARTS	CODE NO. 049	PUBLISHER	VISHAL PUBLISHING CO.

TERM 1					
MONTH		**CHAPTER /LESSON**	**TOPIC/SUB-TOPIC**	**NO. OF PERIODS**	**WEIGH TAGE**
APRIL	THEORY	Fundamentals of Art	Six limbs of painting	14	4
	PRACTICAL	SKETCHING	Natural forms (live plants and sand trees, vegetables and fuits, leaves and flowers etc.); Geometrical forms (tables, chairs, tv, kitchen, utensils etc.), Portrait (poster colours and pencil shading)		10
MAY	THEORY	PRE-HISTORIC ROCK PAINTINGS AND ART OF INDUS VALLEY	Art of indus valley civilization Pre-historic rock paintings	24	4
	PRACTICAL	STILL LIFE	natural objects (vegetables, fruits and plants) geometrical objects (thick book, jug, bowl, cubes, cylinders, sphere etc)		10
AUGUST	THEORY	BUDDHIST, JAIN AND HINDU ART	general introduction of art during mauryan, shunga, kushana and gupta period	24	4.5
	PRACTICAL	COLOUR AND DESIGN	zentangle (colourful, black and white)		10
SEPTEMBER	THEORY	BUDDHIST, JAIN AND HINDU ART	art of ajanta	24	4.5
	PRACTICAL	PAINTING	newspaper painting (with black colour or multi colour) copy work(copy work of any famous artist in your own style)		10

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TERM 2					
MONTH		CHAPTER/LESSON	TOPIC/SUB-TOPIC	NO. OF PERIODS	WEIGHT AGE
NOVEMBER	THEORY	TEMPLE SCULPTURES, BRONZES AND INDO-ISLAMIC ARCHITECTURE	Indian temple sculptures	24	4.5
	PRACTICAL	SPACE DIVISION	Negative and positive space (black and white)		10
DECEMBER	THEORY	TEMPLE SCULPTURES, BRONZES AND INDO-ISLAMIC ARCHITECTURE	Indian bronzes	24	4.5
	PRACTICAL	PAINTING COMPOSITION	Monochrome painting (draw anything of your choice and use any poster colours) Landscape, cityscape, seascape, sunset scene(use any medium)		10
JANUARY	THEORY	TEMPLE SCULPTURES, BRONZES AND INDO-ISLAMIC ARCHITECTURE	Indo islamic architecture	20	4
	PRACTICAL	INDIAN FOLK ART	Madhubani and warli art		10

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HINDUSTANI MUSIC VOCAL (Code–034)

Sr.No.	Value Points	Marks
1	Choice Raga (Vilambit & DrutKhyal) any one of the following Bihagi Bhimpalasi Bhairavi	15
2	Examiner's Choice Ragas	12
3	1 Dhrupad with Dugun in anyone of the prescribed Ragas	14
4	Devotional Song.	06
5	Ability to recognize the prescribed ragas from the phrases of swarasrendend by the examiner	08
6	Recitation of Thekas of prescribed Talas with Thah, Dugun, Chaugun: Teentala Ektala Chautala	05+05=10
7	Practical File	05

Sr.No.	Units		No. of Periods	Marks
	Unit1		10	
1.1	Brief of the following Nada, Shruti, Swar, Saptak, Thaat, Jati, Laya, Tala		04	06
1.2	Brief study of the following: Margi-Desi, Raga,		06	
	Unit2		06	
2.1	Brief History of the following Dhrupad, Khayal and Tarana		06	06
	Unit 3		08	
3.1	Brief study of Musical Elements in NatyaShastra		04	06
3.2	Life sketch and contribution of Tansen, V.N. Bhatkh ande and V.D.Paluskar		04	
	Unit 4		06	

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4.1	Description of Prescribed Talas along with Tala Notation with Thah, Dugun and Chaugun • Teentala • Ektala • Chautala	06	06
4.2	Knowledge of the Structure of Tanpura	04	
	Unit5	**10**	
5.1	Critical study of Prescribed Ragas along with Recognizing Ragas from phrases of Swaras and Elaborating them excluding Raga Jaunpuri	04	
5.2	• Writing in natation the compositions of Prescribed Ragas Bihag • Bhimpalasi • Bhairavi	06	06

PRACTICALS

Sr.No.	Topics	No. of periods
1.	One vilambit Khayal with simple elaborationsandfewtanasinanyoneofthe prescribed Ragas.	18
2.	One Drut Khayal with simple elaboration andfew tanas in the following Ragas-Bihag, Bhairavi and Bhimpalasi.	40
3.	One Dhrupad with Dugunin anyone of the prescribed Ragas.	12
4.	OneDevotionalSongs.	10
5.	Ability to recognize the prescribed Ragasfromthe phrases of Swaras rendered by the Examiner.	05
6.	Recitation of the Thekas of Teentala, Chautalaand Ektala with Dugun and Chaugun, keeping Talawith hand beats.	15

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